

A Collection of  
TOEFL  
Reading  
Comprehension  
Tests

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# PRACTICE TEST 01

## May 2004

### Question 1-10

All mammals feed their young. Beluga whale mothers, for example, nurse their calves for some twenty months, until they are about to give birth again and their young are able to find their own food. The behavior of feeding of the young is built into the reproductive system. It is a nonelective part of parental care and the defining feature of a mammal, the most important thing that mammals-- whether marsupials, platypuses, spiny anteaters, or placental mammals -- have in common.

But not all animal parents, even those that tend their offspring to the point of hatching or birth, feed their young. Most egg-guarding fish do not, for the simple reason that their young are so much smaller than the parents and eat food that is also much smaller than the food eaten by adults. In reptiles, the crocodile mother protects her young after they have hatched and takes them down to the water, where they will find food, but she does not actually feed them. Few insects feed their young after hatching, but some make other arrangements, provisioning their cells and nests with caterpillars and spiders that they have paralyzed with their venom and stored in a state of suspended animation so that their larvae might have a supply of fresh food when they hatch.

For animals other than mammals, then, feeding is not intrinsic to parental care. Animals add it to their reproductive strategies to give them an edge in their lifelong quest for descendants. The most vulnerable moment in any animal's life is when it first finds itself completely on its own, when it must forage and fend for itself. Feeding postpones that moment until a young animal has grown to such a size that it is better able to cope. Young that are fed by their parents become nutritionally independent at a much greater fraction of their full adult size. And in the meantime those young are shielded against the vagaries of fluctuating or difficult-to-find supplies. Once a species does take the step of feeding its young, the young become totally dependent on the extra effort. If both parents are removed, the young generally do not survive.

1. What does the passage mainly discuss?
  - (A) The care that various animals give to their offspring.
  - (B) The difficulties young animals face in obtaining food.
  - (C) The methods that mammals use to nurse their young.
  - (D) The importance among young mammals of becoming independent.
2. The author lists various animals in line 5 to
  - (A) contrast the feeding habits of different types of mammals
  - (B) describe the process by which mammals came to be defined
  - (C) emphasize the point that every type of mammal feeds its own young
  - (D) explain why a particular feature of mammals is nonelective
3. The word "tend" in line 7 is closest in meaning to
  - (A) sit on
  - (B) move
  - (C) notice
  - (D) care for
4. What can be inferred from the passage about the practice of animal parents feeding their young?
  - (A) It is unknown among fish.
  - (B) It is unrelated to the size of the young.
  - (C) It is dangerous for the parents.
  - (D) It is most common among mammals.
5. The word "provisioning" in line 13 is closest in meaning to
  - (A) supplying
  - (B) preparing
  - (C) building
  - (D) expanding

6. According to the passage, how do some insects make sure their young have food?  
(A) By storing food near their young.  
(B) By locating their nests or cells near spiders and caterpillars.  
(C) By searching for food some distance from their nest.  
(D) By gathering food from a nearby water source.
7. The word "edge" in line 17 is closest in meaning to  
(A) opportunity                      (B) advantage                      (C) purpose                      (D) rest
8. The word "it" in line 20 refers to  
(A) feeding                      (B) moment                      (C) young animal                      (D) size
9. According to the passage, animal young are most defenseless when  
(A) their parents are away searching for food  
(B) their parents have many young to feed  
(C) they are only a few days old  
(D) they first become independent
10. The word "shielded" in line 22 is closest in meaning to  
(A) raised                      (B) protected                      (C) hatched                      (D) valued

### Question 11-21

Printmaking is the generic term for a number of processes, of which woodcut and engraving are two prime examples. Prints are made by pressing a sheet of paper (or other material) against an image-bearing surface to which ink has been applied. When the paper is removed, the image adheres to it, but in reverse.

Line

- (5) The woodcut had been used in China from the fifth century A.D. for applying patterns to textiles. The process was not introduced into Europe until the fourteenth century, first for textile decoration and then for printing on paper. Woodcuts are created by a relief process; first, the artist takes a block of wood, which has been sawed parallel to the grain, covers it with a white ground, and then draws the image in ink. The background is carved away,  
(10) leaving the design area slightly raised. The woodblock is inked, and the ink adheres to the raised image. It is then transferred to damp paper either by hand or with a printing press.

- Engraving, which grew out of the goldsmith's art, originated in Germany and northern Italy in the middle of the fifteenth century. It is an intaglio process (from Italian *intagliare*, "to carve"). The image is incised into a highly polished metal plate, usually copper, with a  
(15) cutting instrument, or burin. The artist inks the plate and wipes it clean so that some ink remains in the incised grooves. An impression is made on damp paper in a printing press, with sufficient pressure being applied so that the paper picks up the ink.

- Both woodcut and engraving have distinctive characteristics. Engraving lends itself to subtle modeling and shading through the use of fine lines. Hatching and cross-hatching  
(20) determine the degree of light and shade in a print. Woodcuts tend to be more linear, with sharper contrasts between light and dark. Printmaking is well suited to the production of multiple images. A set of multiples is called an edition. Both methods can yield several hundred good-quality prints before the original block or plate begins to show signs of wear. Mass production of prints in the sixteenth century made images available, at a lower cost,  
(25) to a much broader public than before.

11. What does the passage mainly discuss?  
 (A) The origins of textile decoration (B) The characteristics of good-quality prints  
 (C) Two types of printmaking (D) Types of paper used in printmaking
12. The word "prime" in line 2 is closest in meaning to  
 (A) principal (B) complex (C) general (D) recent
13. The author's purposes in paragraph 2 is to describe  
 (A) the woodcuts found in China in the fifth century  
 (B) the use of woodcuts in the textile industry  
 (C) the process involved in creating a woodcut  
 (D) the introduction of woodcuts to Europe
14. The word "incised" in line 14 is closest in meaning to  
 (A) burned (B) cut (C) framed (D) baked
15. Which of the following terms is defined in the passage/  
 (A) "patterns" (line 5) (B) "grain" (line 8)  
 (C) "burin" (line 15) (D) "grooves" (line 16)
16. The word "distinctive" in line 18 is closest in meaning to  
 (A) unique (B) accurate (C) irregular (D) similar
17. According to the passage, all of the following are true about engraving EXCEPT that it  
 (A) developed from the art of the goldsmiths  
 (B) requires that the paper be cut with a burin  
 (C) originated in the fifteenth century  
 (D) involves carving into a metal plate
18. The word "yield" in line 22 is closest in meaning to  
 (A) imitate (B) produce (C) revise (D) contrast
19. According to the passage, what do woodcut and engraving have in common?  
 (A) Their designs are slightly raised.  
 (B) They achieve contrast through hatching and cross-hatching.  
 (C) They were first used in Europe.  
 (D) They allow multiple copies to be produced from one original.
20. According to the author, what made it possible for members of the general public to own prints in the sixteenth century?  
 (A) Prints could be made at low cost.  
 (B) The quality of paper and ink had improved.  
 (C) Many people became involved in the printmaking industry.  
 (D) Decreased demand for prints kept prices affordable.
21. According to the passage, all of the following are true about prints EXCEPT that they  
 (A) can be reproduced on materials other than paper  
 (B) are created from a reversed image  
 (C) show variations between light and dark shades  
 (D) require a printing press

Questions 22-31

The first peoples to inhabit what today is the southeastern United States sustained themselves as hunters and gathers. Sometimes early in the first millennium A.D., however, they began to cultivate corn and other crops. Gradually, as they became more skilled at gardening, they settled into permanent villages and developed a rich culture, characterized by the great earthen mounds they erected as monuments to their gods and as tombs for their distinguished dead. Most of these early mound builders were part of the Adena-Hopewell culture, which had its beginnings near the Ohio River and takes its name from sites in Ohio. The culture spread southward into the present-day states of Louisiana, Alabama, Georgia, and Florida. Its peoples became great traders, bartering jewellery, pottery, animal pelts, tools, and other goods along extensive trading networks that stretched up and down eastern North America and as far west as the Rocky Mountains.

About A.D. 400, the Hopewell culture fell into decay. Over the next centuries, it was supplanted by another culture, the Mississippian, named after the river along which many of its earliest villages were located. This complex civilization dominated the Southeast from about A.D. 700 until shortly before the Europeans began arriving in the sixteenth century. At the peak of its strength, about the year 1200, it was the most advanced culture in North America. Like their Hopewell predecessors, the Mississippians became highly skilled at growing food, although on a grander scale. They developed an improved strain of corn, which could survive in wet soil and a relatively cool climate, and also learned to cultivate beans. Indeed, agriculture became so important to the Mississippians that it became closely associated with the Sun – the guarantor of good crops. Many tribes called themselves "children of the Sun" and believed their omnipotent priest-chiefs were descendants of the great sun god.

Although most Mississippians lived in small villages, many others inhabited large towns. Most of these towns boasted at least one major flat-topped mound on which stood a temple that contained a sacred flame. Only priests and those charged with guarding the flame could enter the temples. The mounds also served as ceremonial and trading sites, and at times they were used as burial grounds.

22. What does the passage mainly discuss?
- (A) The development of agriculture
  - (B) The locations of towns and villages
  - (C) The early people and cultures of the United States
  - (D) The construction of burial mounds
23. Which of the following resulted from the rise of agriculture in the southeastern United States?
- (A) The development of trade in North America
  - (B) The establishment of permanent settlements
  - (C) Conflicts with other Native American groups over land
  - (D) A migration of these peoples to the Rocky Mountains.
24. What does the term "Adena-Hopewell" (line 7) designate?
- (A) The early locations of the Adena-Hopewell culture
  - (B) The two most important nations of the Adena-Hopewell culture
  - (C) Two former leaders who were honored with large burial mounds.
  - (D) Two important trade routes in eastern North America
25. The word "bartering" in line 9 is closest in meaning to
- (A) producing
  - (B) exchanging
  - (C) transporting
  - (D) loading

26. The word "supplanted" in line 13 is closest in meaning to  
 (A) conquered (B) preceded (C) replaced (D) imitated
27. According to the passage, when did the Mississippian culture reach its highest point of development?  
 (A) About A.D. 400 (B) Between A.D. 400 and A.D. 700  
 (C) About A.D. 1200 (D) In the sixteenth century
28. According to the passage, how did the agriculture of the Mississippians differ from that of their Hopewell predecessors?  
 (A) The Mississippians produced more durable and larger crops of food.  
 (B) The Mississippians sold their food to other groups.  
 (C) The Mississippians could only grow plants in warm, dry climates.  
 (D) The Mississippians produced special foods for their religious leaders.
29. Why does the author mention that many Mississippian tribes called themselves "children of the Sun" (line 22)?  
 (A) To explain why they were obedient to their priest-chiefs.  
 (B) To argue about the importance of religion in their culture.  
 (C) To illustrate the great importance they placed on agriculture.  
 (D) To provide an example of their religious rituals.
30. The phrase "charged with" in line 26 is closest in meaning to  
 (A) passed on (B) experienced at  
 (C) interested in (D) assigned to
31. According to the passage, the flat-topped mounds in Mississippian towns were used for all of the following purposes EXCEPT  
 (A) religious ceremonies (B) meeting places for the entire community  
 (C) sites for commerce (D) burial sites

### Question 32-40

Overland transport in the United States was still extremely primitive in 1790. Roads were few and short, usually extending from inland communities to the nearest river town or seaport. Nearly all interstate commerce was carried out by sailing ships that served the bays and harbors of the seaboard. Yet, in 1790 the nation was on the threshold of a new era of road development. Unable to finance road construction, states turned for help to private companies, organized by merchants and land speculators who had a personal interest in improved communications with the interior. The pioneer in this move was the state of Pennsylvania, which chartered a company in 1792 to construct a turnpike, a road for the use of which a toll, or payment, is collected, from Philadelphia to Lancaster. The legislature gave the company the authority to erect tollgates at points along the road where payment would be collected, though it carefully regulated the rates. (The states had unquestioned authority to regulate private business in this period.)

The company built a gravel road within two years, and the success of the Lancaster Pike encouraged imitation. Northern states generally relied on private companies to build their toll roads, but Virginia constructed a network at public expense. Such was the road building fever that by 1810 New York alone had some 1,500 miles of turnpikes extending from the Atlantic to Lake Erie.

Transportation on these early turnpikes consisted of freight carrier wagons and passenger stagecoaches. The most common road freight carrier was the Conestoga wagon, a vehicle developed in the mid-eighteenth century by German immigrants in the area around



Lancaster, Pennsylvania. It featured large, broad wheels able to negotiate all but the deepest ruts and holes, and its round bottom prevented the freight from shifting on a hill. Covered with canvas and drawn by four to six horses, the Conestoga wagon rivaled the log cabin as the primary symbol of the frontier. Passengers traveled in a variety of stagecoaches, the most common of which had four benches, each holding three persons. It was only a platform on wheels, with no springs; slender poles held up the top, and leather curtains kept out dust and rain.

- (25)
32. Paragraph 1 discusses early road building in the United States mainly in terms of the  
(A) popularity of turnpikes (B) financing of new roads  
(C) development of the interior (D) laws governing road use
33. The word "primitive" in line 1 is closest in meaning to  
(A) unsafe (B) unknown (C) inexpensive (D) undeveloped
34. In 1790 most roads connected towns in the interior of the country with  
(A) other inland communities (B) towns in other states  
(C) river towns or seaports (D) construction sites
35. The phrase "on the threshold of" in line 4 and 5 is closest in meaning to  
(A) in need of (B) in place of  
(C) at the start of (D) with the purpose of
36. According to the passage, why did states want private companies to help with road building?  
(A) The states could not afford to build roads themselves.  
(B) The states were not as well equipped as private companies.  
(C) Private companies could complete roads faster than the states.  
(D) Private companies had greater knowledge of the interior.
37. The word "it" in line 11 refers to  
(A) legislature (B) company (C) authority (D) payment
38. The word "imitation" in line 14 is closest in meaning to  
(A) investment (B) suggestion (C) increasing (D) copying
39. Virginia is mentioned as an example of a state that  
(A) built roads without tollgates  
(B) built roads with government money  
(C) completed 1,500 miles of turnpikes in one year  
(D) introduced new law restricting road use
40. The "large, broad wheels" of the Conestoga wagon are mentioned in line 21 as an example of a feature of wagons that was  
(A) unusual in mid-eighteenth century vehicles  
(B) first found in Germany  
(C) effective on roads with uneven surfaces  
(D) responsible for frequent damage to freight

## Question 41- 50

In Death Valley, California, one of the hottest, most arid places in North America, there is much salt, and salt can damage rocks impressively. Inhabitants of areas elsewhere, where streets and highways are salted to control ice, are familiar with the resulting rust and deterioration on cars. That attests to the chemically corrosive nature of salt, but it is not the way salt destroys rocks. Salt breaks rocks apart principally by a process called crystal prying and wedging. This happens not by soaking the rocks in salt water, but by moistening their bottoms with salt water. Such conditions exist in many areas along the eastern edge of central Death Valley. There, salty water rises from the groundwater table by capillary action through tiny spaces in sediment until it reaches the surface.

(10) Most stones have capillary passages that suck salt water from the wet ground. Death Valley provides an ultra-dry atmosphere and high daily temperatures, which promote evaporation and the formation of salt crystals along the cracks or other openings within stones. These crystals grow as long as salt water is available. Like tree roots breaking up a sidewalk, the growing crystals exert pressure on the rock and eventually pry the rock apart along planes of weakness, such as banding in metamorphic rocks, bedding in sedimentary rocks, or preexisting or incipient fractures, and along boundaries between individual mineral crystals or grains. Besides crystal growth, the expansion of halite crystals (the same as everyday table salt) by heating and of sulfates and similar salts by hydration can contribute additional stresses. A rock durable enough to have withstood natural conditions for a very long time in other areas could probably be shattered into small pieces by salt weathering within a few generations.

(25) The dominant salt in Death Valley is halite, or sodium chloride, but other salts, mostly carbonates and sulfates, also cause prying and wedging, as does ordinary ice. Weathering by a variety of salts, though often subtle, is a worldwide phenomenon. Not restricted to arid regions, intense salt weathering occurs mostly in salt-rich places like the seashore, near the large saline lakes in the Dry Valleys of Antarctica, and in desert sections of Australia, New Zealand, and central Asia.

41. What is the passage mainly about?

- (A) The destructive effects of salt on rocks.
- (B) The impressive salt rocks in Death Valley.
- (C) The amount of salt produced in Death Valley.
- (D) The damaging effects of salt on roads and highways.

42. The word "it" in line 9 refers to

- (A) salty water
- (B) groundwater table
- (C) capillary action
- (D) sediment

43. The word "exert" in line 14 is closest in meaning to

- (A) put
- (B) reduce
- (C) replace
- (D) control

44. In lines 13-17, why does the author compare tree roots with growing salt crystals?

- (A) They both force hard surfaces to crack.
- (B) They both grow as long as water is available.
- (C) They both react quickly to a rise in temperature.
- (D) They both cause salty water to rise from the groundwater table.

**PRACTICE TEST 01 – May 2004**

45. In lines 17-18, the author mentions the "*expansion of halite crystals...by heating and of sulfates and similar salts by hydration*" in order to
- (A) present an alternative theory about crystal growth
  - (B) explain how some rocks are not affected by salt
  - (C) simplify the explanation of crystal prying and wedging
  - (D) introduce additional means by which crystals destroy rocks
46. The word "durable" in line 19 is closest in meaning to
- (A) large
  - (B) strong
  - (C) flexible
  - (D) pressured
47. The word "shattered" in line 20 is closest in meaning to
- (A) arranged
  - (B) dissolved
  - (C) broken apart
  - (D) gathered together
48. The word "dominant" in line 22 is closest in meaning to
- (A) most recent
  - (B) most common
  - (C) least available
  - (D) least damaging
49. According to the passage, which of the following is true about the effects of salts on rocks?
- (A) Only two types of salts cause prying and wedging.
  - (B) Salts usually cause damage only in combination with ice.
  - (C) A variety of salts in all kinds of environments can cause weathering.
  - (D) Salt damage at the seashore is more severe than salt damage in Death Valley.
50. Which of the following can be inferred from the passage about rocks that are found in areas where ice is common?
- (A) They are protected from weathering.
  - (B) They do not allow capillary action of water.
  - (C) They show similar kinds of damage as rocks in Death Valley.
  - (D) They contain more carbonates than sulfates.

# PRACTICE TEST 02

## January 2003

### Questions 1-10

By far the most important United States export product in the eighteenth and nineteenth centuries was cotton, favored by the European textile industry over flax or wool because it was easy to process and soft to the touch. Mechanization of spinning and weaving allowed significant centralization and expansion in the textile industry during this period, and at the same time the demand for cotton increased dramatically. American producers were able to meet this demand largely because of the invention of the cotton gin by Eli Whitney in 1793. Cotton could be grown throughout the South, but separating the fiber – or lint – from the seed was a laborious process. Sea island cotton was relatively easy to process by hand, because its fibers were long and seeds were concentrated at the base of the flower, but it demanded a long growing season, available only along the nation's eastern seacoast. Short-staple cotton required a much shorter growing season, but the shortness of the fibers and their mixture with seeds meant that a worker could hand-process only about one pound per day. Whitney's gin was a hand-powered machine with revolving drums and metal teeth to pull cotton fibers away from seeds. Using the gin, a worker could produce up to 50 pounds of lint a day. The later development of larger gins, powered by horses, water, or steam, multiplied productivity further.

The interaction of improved processing and high demand led to the rapid spread of the cultivation of cotton and to a surge in production. It became the main American export, dwarfing all others. In 1802, cotton composed 14 percent of total American exports by value. Cotton had a 36 percent share by 1810 and over a 50 percent share in 1830. In 1860, 61 percent of the value of American exports was represented by cotton. In contrast, wheat and wheat flour composed only 6 percent of the value of American exports in that year. Clearly, cotton was king in the trade of the young republic. The growing market for cotton and other American agricultural products led to an unprecedented expansion of agricultural settlement, mostly in the eastern half of the United States---west of the Appalachian Mountains and east of the Mississippi River.

- The main point of the passage is that the eighteenth and nineteenth centuries were a time when
  - the European textile industry increased its demand for American export products
  - mechanization of spinning and weaving dramatically changed the textile industry
  - cotton became a profitable crop but was still time-consuming to process
  - cotton became the most important American export product
- The word "favored" in line 2 is closest in meaning to
  - preferred
  - recommended
  - imported
  - included
- All of the following are mentioned in the passage as reasons for the increased demand for cotton EXCEPT
  - cotton's softness
  - cotton's ease of processing
  - a shortage of flax and wool
  - the growth that occurred in the textile industry.
- The word "laborious" in line 8 is closest in meaning to
  - unfamiliar
  - primitive
  - skilled
  - difficult
- According to the passage, one advantage of sea island cotton was its
  - abundance of seeds
  - long fibers

- (C) long growing season (D) adaptability to different climates
6. Which of the following can be inferred from the passage about cotton production in the United States after the introduction of Whitney's cotton gin?
- (A) More cotton came from sea island cotton plants than before.  
(B) More cotton came from short-staple cotton plants than before.  
(C) Most cotton produced was sold domestically.  
(D) Most cotton produced was exported to England.
7. The word "surge" in line 18 is closest in meaning to
- (A) sharp increase (B) sudden stop  
(C) important change (D) excess amount
8. The author mentions "wheat and wheat flour" in line 22 in order to
- (A) show that Americans exported more agricultural products than they imported.  
(B) show the increase in the amount of wheat products exported.  
(C) demonstrate the importance of cotton among American export products.  
(D) demonstrate that wheat farming was becoming more profitable.
9. The word "unprecedented" in line 25 is closest in meaning to
- (A) slow (B) profitable (C) not seen before (D) never explained
10. According to the passage, the Mississippi River was
- (A) one of the boundaries of a region where new agricultural settlement took place  
(B) a major source of water for agricultural crops  
(C) the primary route by which agricultural crops were transported  
(D) a main source of power for most agricultural machinery

**Questions 11-19**

The origins of nest-building remain obscure, but current observation of nest-building activities provide evidence of their evolution. Clues to this evolutionary process can be found in the activities of play and in the behavior and movements of birds during mating, such as incessant pulling at strips of vegetation or scraping of the soil. During the early days of the reproductive cycle, the birds seem only to play with the building materials. In preparation for mating, they engage in activities that resemble nest-building, and continue these activities throughout and even after the mating cycle. Effective attempts at construction occur only after mating.

Although nest-building is an instinctive ability, there is considerable adaptability in both site selection and use of materials, especially with those species which build quite elaborate constructions. Furthermore, some element of learning is often evident since younger birds do not build as well as their practiced elders. Young ravens, for example, first attempt to build with sticks of quite unsuitable size, while a jackdaw's first nest includes virtually any movable object. The novelist John Steinbeck recorded the contents of a young osprey nest built in his garden, which included three shirts, a bath towel, and one arrow.

Birds also display remarkable behavior in collecting building materials. Crows have been seen to tear off stout green twigs, and sparrowhawks will dive purposefully onto a branch until it snaps and then hang upside down to break it off. Golden eagles, over generations of work, construct enormous nests. One of these, examined after it had been dislodged by high winds, weighed almost two tons and included foundation branches almost two meters long. The carrying capacity of the eagles, however, is only relative to their size and most birds are able to carry an extra load of just over twenty percent of their

- body weight.
11. The word "obscure" in line 1 is closest in meaning to  
 (A) interesting (B) unclear (C) imperfect (D) complex
12. According to the passage, which of the following activities is characteristic of the early part of the reproductive cycle of birds?  
 (A) Selecting a mate (B) Collecting nest-building materials  
 (C) Playing with nest-building materials (D) Building a nest
13. The word "display" in line 17 is closest in meaning to  
 (A) communicate (B) imitate (C) initiate (D) exhibit
14. The novelist John Steinbeck is mentioned in line 14 because he  
 (A) conducted a scientific study on the behavior of ospreys  
 (B) was the first to describe where ospreys built their nests  
 (C) described the materials ospreys can use to build their nests  
 (D) compared the size of osprey nests with the nests of other species
15. Which of the following birds are mentioned as those that build nests that include unusual objects?  
 (A) Ravens (B) Ospreys (C) Crows (D) Sparrowhawks
16. According to the passage, when gathering materials to build their nests, sparrowhawks do which of the following?  
 (A) Hang upside down (B) Select only green twigs  
 (C) Use objects blowing in the wind (D) Collect more branches than necessary
17. The word "these" in line 20 refers to  
 (A) golden eagles (B) generations (C) winds (D) nests
18. The word "load" in line 23 is closest in meaning to  
 (A) weight (B) number (C) section (D) level
19. The author mentions twenty percent in line 23 to indicate that  
 (A) eagles are twenty percent bigger than most birds  
 (B) twenty percent of all nests include foundation branches  
 (C) the nests of eagles are twenty percent of larger than those of other birds  
 (D) birds can carry twenty percent of their own weight

### Questions 20-30

A survey is a study, generally in the form of an interview or a questionnaire, that provides information concerning how people think and act. In the United States, the best-known surveys are the Gallup poll and the Harris poll. As anyone who watches the news during  
*Line* campaigns presidential knows, these polls have become an important part of political life in  
 (5) the United States.

North Americans are familiar with the many "person on the street" interviews on local television news shows. While such interviews can be highly entertaining, they are not necessarily an accurate indication of public opinion. First, they reflect the opinions of only those people who appear at a certain location. Thus, such samples can be biased in favor  
 (10) of commuters, middle-class shoppers, or factory workers, depending on which area the newspeople select. Second, television interviews tend to attract outgoing people who are willing to appear on the air, while they frighten away others who may feel intimidated by a camera. A survey must be based on a precise, representative sampling if it is to genuinely reflect a broad range of the population.

- (15) In preparing to conduct a survey, sociologists must exercise great care in the wording of questions. An effective survey question must be simple and clear enough for people to understand it. It must also be specific enough so that there are no problems in interpreting the results. Even questions that are less structured must be carefully phrased in order to elicit the type of information desired. Surveys can be indispensable sources of information, but
- (20) only if the sampling is done properly and the questions are worded accurately.

There are two main forms of surveys: the interview and the questionnaire. Each of these forms of survey research has its advantages. An interviewer can obtain a high response rate because people find it more difficult to turn down a personal request for an interview than to throw away a written questionnaire. In addition, an interviewer can go beyond written

- (25) questions and probe for a subject's underlying feelings and reasons. However, questionnaires have the advantage of being cheaper and more consistent.

- 20.** What does the passage mainly discuss?  
(A) The history of surveys in North America  
(B) The principles of conducting surveys  
(C) Problems associated with interpreting surveys  
(D) The importance of polls in American political life
- 21.** The word "they" in line 8 refers to  
(A) North Americans      (B) news shows      (C) interviews      (D) opinions
- 22.** According to the passage, the main disadvantage of person-on-the-street interviews is that they  
(A) are not based on a representative sampling  
(B) are used only on television  
(C) are not carefully worded  
(D) reflect political opinions
- 23.** The word "precise" in line 13 is closest in meaning to  
(A) planned      (B) rational      (C) required      (D) accurate
- 24.** According to paragraph 3, which of the following is most important for an effective survey?  
(A) A high number of respondents  
(B) Carefully worded questions  
(C) An interviewer's ability to measure respondents' feelings  
(D) A sociologist who is able to interpret the results
- 25.** The word "exercise" in line 15 is closest in meaning to  
(A) utilize      (B) consider      (C) design      (D) defend
- 26.** The word "elicit" in line 18 is closest in meaning to  
(A) compose      (B) rule out      (C) predict      (D) bring out
- 27.** It can be inferred from the passage that one reason that sociologists may become frustrated with questionnaires is that  
(A) respondents often do not complete and return questionnaires  
(B) questionnaires are often difficult to read  
(C) questionnaires are expensive and difficult to distribute  
(D) respondents are too eager to supplement questions with their own opinions
- 28.** According to the passage, one advantage of live interviews over questionnaires is that live interviews  
(A) cost less      (B) can produce more information  
(C) are easier to interpret      (D) minimize the influence of the researcher

29. The word "probe" in line 25 is closest in meaning to  
 (A) explore (B) influence (C) analyze (D) apply
30. Which of the following terms is defined in the passage?  
 (A) Survey (line 1) (B) Public opinion (line 8)  
 (C) Representative sampling (line 13) (D) Response rate (line 22)

### Questions 31-39

Perhaps one of the most dramatic and important changes that took place in the Mesozoic era occurred late in that era, among the small organisms that populate the uppermost, sunlit portion of the oceans--the plankton. The term "plankton" is a broad one, designating all of the small plants and animals that float about or weakly propel themselves through the sea. In the late stages of the Mesozoic era, during the Cretaceous period, there was a great expansion of plankton that precipitated skeletons or shells composed of two types of mineral: silica and calcium carbonate. This development radically changed the types of sediments that accumulated on the seafloor, because, while the organic parts of the plankton decayed after the organisms died, their mineralized skeletons often survived and sank to the bottom. For the first time in the Earth's long history, very large quantities of silica skeletons, which would eventually harden into rock, began to pile up in parts of the deep sea. Thick deposits of calcareous ooze made up of the tiny remains of the calcium carbonate-secreting plankton also accumulated as never before. The famous white chalk cliffs of Dover, in the southeast of England, are just one example of the huge quantities of such material that amassed during the Cretaceous period; there are many more. Just why the calcareous plankton were so prolific during the latter part of the Cretaceous period is not fully understood. Such massive amounts of chalky sediments have never since been deposited over a comparable period of time. The high biological productivity of the Cretaceous oceans also led to ideal conditions for oil accumulation. Oil is formed when organic material trapped in sediments is slowly buried and subjected to increased temperatures and pressures, transforming it into petroleum. Sediments rich in organic material accumulated along the margins of the Tethys Seaway, the tropical east-west ocean that formed when Earth's single landmass (known as Pangaea) split apart during the Mesozoic era. Many of today's important oil fields are found in those sediments--in Russia, the Middle East, the Gulf of Mexico, and in the states of Texas and Louisiana in the United States.

31. What does the passage mainly discuss?  
 (A) How sediments were built up in oceans during the Cretaceous period  
 (B) How petroleum was formed in the Mesozoic era  
 (C) The impact of changes in oceanic animal and plant life in the Mesozoic era  
 (D) The differences between plankton found in the present era and Cretaceous plankton
32. The passage indicates that the Cretaceous period occurred  
 (A) in the early part of the Mesozoic era (B) in the middle part of the Mesozoic era  
 (C) in the later part of the Mesozoic era (D) after the Mesozoic era
33. The passage mentions all of the following aspects of plankton EXCEPT  
 (A) the length of their lives (B) the level of the ocean at which they are found  
 (C) their movement (D) their size
34. The word "accumulated" in line 8 is closest in meaning to  
 (A) depended (B) matured (C) dissolved (D) collected



35. According to the passage, the most dramatic change to the oceans caused by plankton during the Cretaceous period concerned
- (A) the depth of the water
  - (B) the makeup of the sediment on the ocean floor
  - (C) the decrease in petroleum-producing sediment
  - (D) a decline in the quantity of calcareous ooze on the seafloor
36. The "white chalk cliffs of Dover" are mentioned in line 14 of the passage to
- (A) show where the plankton sediment first began to build up
  - (B) provide an example of a plankton buildup that scientists cannot explain
  - (C) provide an example of the buildup of plankton sediment
  - (D) indicate the largest single plankton buildup on Earth
37. The word "prolific" in line 16 is closest in meaning to
- (A) fruitful
  - (B) distinct
  - (C) determined
  - (D) energetic
38. The word "ideal" in line 19 is closest in meaning to
- (A) common
  - (B) clear
  - (C) perfect
  - (D) immediate
39. The word "it" in line 21 refers to
- (A) biological productivity
  - (B) oil
  - (C) organic material
  - (D) petroleum

**Questions 40-50**

Of all modern instruments, the violin is apparently one of the simplest. It consists in essence of a hollow, varnished wooden sound box, or resonator, and a long neck, covered with a fingerboard, along which four strings are stretched at high tension. The beauty of design, shape, and decoration is no accident: the proportions of the instrument are determined almost entirely by acoustical considerations. Its simplicity of appearance is deceptive. About 70 parts are involved in the construction of a violin, its tone and its outstanding range of expressiveness make it an ideal solo instrument. No less important, however, is its role as an orchestral and chamber instrument. In combination with the larger and deeper-sounding members of the same family, the violins form the nucleus of the modern symphony orchestra.

The violin has been in existence since about 1550. Its importance as an instrument in its own right dates from the early 1600's, when it first became standard in Italian opera orchestras. Its stature as an orchestral instrument was raised further when in 1626 Louis XIII of France established at his court the orchestra known as Les vingt-quatre violons du Roy (The King's 24 Violins), which was to become widely famous later in the century.

In its early history, the violin had a dull and rather quiet tone resulting from the fact that the strings were thick and were attached to the body of the instrument very loosely. During the eighteenth and nineteenth century, exciting technical changes were inspired by such composer-violinists as Vivaldi and Tartini. Their instrumental compositions demanded a fuller, clearer, and more brilliant tone that was produced by using thinner strings and a far higher string tension. Small changes had to be made to the violin's internal structure and to the fingerboard so that they could withstand the extra strain. Accordingly, a higher standard of performance was achieved, in terms of both facility and interpretation. Left-hand technique was considerably elaborated, and new fingering patterns on the fingerboard were developed for very high notes.

40. The word "standard" in line 12 is closest in meaning to  
 (A) practical (B) customary (C) possible (D) unusual
41. "The King's 24 Violins" is mentioned in line 15 to illustrate  
 (A) how the violin became a renowned instrument  
 (B) the competition in the 1600's between French and Italian orchestras  
 (C) the superiority of French violins  
 (D) why the violin was considered the only instrument suitable to be played by royalty
42. What is the main idea presented in paragraph 3?  
 (A) The violin has been modified to fit its evolving musical functions.  
 (B) The violin is probably the best known and most widely distributed musical instrument in the world.  
 (C) The violin had reached the height of its popularity by the middle of the eighteenth century.  
 (D) The technique of playing the violin has remained essentially the same since the 1600's.
43. The author mentions Vivaldi and Tartini in line 20 as examples of composers whose music  
 (A) inspired more people to play the violin (B) had to be adapted to the violin  
 (C) demanded more sophisticated violins (D) could be played only by their students
44. The word "they" in line 23 refers to  
 (A) Civaldi and Tartini (B) thinner strings and a higher string tension  
 (C) small changes (D) internal structure and fingerboard
45. The word "strain" in line 23 is closest in meaning to  
 (A) struggle (B) strength (C) strategy (D) stress
46. The word "Accordingly" in line 24 is closest in meaning to  
 (A) However (B) Consequently (C) Nevertheless (D) Ultimately
47. According to the passage, early violins were different from modern violins in that early violins  
 (A) were heavier (B) broke down more easily  
 (C) produced softer tones (D) were easier to play
48. According to the passage, which of the following contributes to a dull sound being produced by a violin?  
 (A) A long fingerboard (B) A small body  
 (C) High string tension (D) Thick strings
49. Which of the following terms is defined in the passage?  
 (A) resonator (line 2) (B) solo (line 7)  
 (C) left-hand technique (line 25) (D) fingering patterns (lines 25-26)
50. All of the following are mentioned in the passage as contributing to the ability to play modern violin music EXCEPT  
 (A) more complicated techniques for the left hand  
 (B) different ways to use the fingers to play very high notes  
 (C) use of rare wood for the fingerboard and neck  
 (D) minor alterations to the structure of the instrument

# PRACTICE TEST 03

## August 2003

### Question 1-11

If food is allowed to stand for some time, it putrefies .When the putrefied material is examined microscopically ,it is found to be teeming with bacteria. Where do these bacteria come from , since they are not seen in fresh food? Even until the mid-nineteenth century, many people believed that such microorganisms originated by spontaneous generation ,a hypothetical process by which living organisms develop from nonliving matter.

The most powerful opponent of the theory of spontaneous generation was the French chemist and microbiologist Louis Pasteur(1822-1895).Pasteur showed that structures present in air closely resemble the microorganisms seen in putrefying materials .He did this by passing air through guncotton filters, the fibers of which stop solid particles. After the guncotton was dissolved in a mixture of alcohol and ether, the particles that it had trapped fell to the bottom of the liquid and were examined on a microscope slide .Pasteur found that in ordinary air these exists a variety of solid structures ranging in size from 0.01 mm to more than 1. 0mm .Many of these bodies resembled the reproductive structures of common molds, single-celled animals, and various other microbial cells. As many as 20 to 30 of them were found in fifteen liters of ordinary air ,and they could not be distinguished from the organisms found in much larger numbers in putrefying materials .Pasteur concluded that the organisms found in putrefying materials originated from the organized bodies present in the air .He postulated that these bodies are constantly being deposited on all objects.

Pasteur showed that if a nutrient solution was sealed in a glass flask and heated to boiling to destroy all the living organisms contaminating it, it never putrefied .The proponents of spontaneous generation declared that fresh air was necessary for spontaneous generation and that the air inside the sealed flask was affected in some way by heating so that it would no longer support spontaneous generation. Pasteur constructed a swan-necked flask in which putrefying materials could he heated to boiling, but air could reenter. The bends in the neck prevented microorganisms from getting in the flask. Material sterilized in such a flask did not putrefy.

1. What does the passage mainly discuss?
  - (A) Pasteur's influence on the development of the microscope.
  - (B) The origin of the theory of spontaneous generation .
  - (C) The effects of pasteurization on food.
  - (D) Pasteur's argument against the theory of spontaneous generation .
2. The phrase "teeming with "in line 2 is closest in meaning to
  - (A) full of
  - (B) developing into
  - (C) resistant to
  - (D) hurt by
3. Which of the following questions did the theory of spontaneous generation attempt to answer?
  - (A) What is the origin of the living organisms are seen on some food?
  - (B) How many types of organisms can be found on food?
  - (C) What is the most effective way to prepare living organisms for microscopic examination?
  - (D) How long can food stand before it putrefies?
4. The word "resemble" in line 9 is closest in meaning to
  - (A) benefit from
  - (B) appear similar to

- (C) join together with (D) grow from
5. The purpose of the “guncotton” mentioned in paragraph 2 was to  
 (A) trap particles for analysis  
 (B) slow the process of putrefaction  
 (C) increase the airflow to the microscopic slide  
 (D) aid the mixing of alcohol and ether
6. The author mention “1.0mm” in line 14 in describing the  
 (A) thickness of a layer of organisms that was deposited on an object  
 (B) diameter of the fibers that were in the guncotton filters  
 (C) thickness of the microscope slides that were used  
 (D) size of the particles that that were collected
7. The word “postulated” in line 19 is closest in meaning to  
 (A) analyzed (B) doubted (C) persuaded (D) suggested
8. The objects that Pasteur removed from the air in his experiment were remarkable because they were  
 (A) primarily single-celled organisms  
 (B) no different from objects found in putrefying materials  
 (C) fairly rare  
 (D) able to live in a mixture of alcohol and ether
9. The word “it” in line 22 refers to  
 (A) a nutrient solution (B) a glass flask  
 (C) boiling (D) spontaneous generation
10. According to paragraph 3, proponents of spontaneous generation believed that which of the following was important for the process to succeed ?  
 (A) A sealed container (B) Fresh air  
 (C) Heat (D) The presence of nutrients
11. It can be inferred from paragraph 3 that Pasteur employed a swam-necked flask to  
 (A) store sterilized liquids for use in future experiments  
 (B) prevent heat from building up in a solution  
 (C) disprove a criticism of his conclusions  
 (D) estimate the number of organisms in a liter of air

## Questions 12-20

In the early decades of the United States ,the agrarian movement promoted the farmer as society’s hero. In the minds of agrarian thinkers and writers ,the farmer was a person on whose well-being the health of the new country depended .The period between the  
*Line* Revolution, which ended in 1783,and the Civil War ,which ended in 1865 ,was the age of  
 (5 ) the farmer in the United States .Agrarian philosophers ,represented most eloquently by Thomas Jefferson, celebrated farmers extravagantly for their supposed centrality in a good society, their political virtue ,and their Superior morality .And virtually all policy makers, whether they subscribed to the tenets of the philosophy held by Jefferson or not, recognized agriculture as the key component of the American economy .Consequently ,government at  
 (10) all levels worked to encourage farmers as a social group and agriculture as economic enterprise.

Both the national and state governments developed transportation infrastructure, building canals, roads, bridges, and railroads ,deepening harbors ,and removing obstructions from navigable streams .The national government imported plant and animal

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- (15) varieties and launched exploring expeditions into prospective farmlands in the West .In addition, government trade policies facilitated the exporting of agricultural products.

For their part ,farmers seemed to meet the social expectations agrarian philosophers had for them ,as their broader horizons and greater self-respect, both products of the Revolution ,were reflected to some degree in their behavior .Farmers seemed to become

- (20) more scientific ,joining agricultural societies and reading the farm newspapers that sprang up throughout the country .They began using improved implements, tried new crops and pure animal breeds , and became more receptive to modern theories of soil improvement .

They also responded to inducements by national and state governments .Farmers streamed to the West ,filling frontier lands with stunning rapidity .But farmers responded

- (25) less to the expectations of agrarians and government inducements than to growing market opportunities .European demand for food from the United States seemed insatiable . War, industrialization , and urbanization all kept demand high in Europe . United States cities and industries grew as well; even industries not directly related to farming thrived because of the market, money ,and labor that agriculture provided

**12.** What does the passage mainly discuss?

- (A) The agrarian philosophy of Thomas Jefferson
- (B) The role of the national government in the development of agriculture
- (C) Improvements in farming techniques
- (D) The impact of the increased importance of the farmer

**13.** The word “depended” in line 3 is closest in meaning to

- (A) improved
- (B) relied
- (C) demanded
- (D) explained

**14.** The author mentions Thomas Jefferson in paragraph 1 as an example of

- (A) a leader during the Revolution
- (B) an inventor of new farming techniques
- (C) a philosopher who believed farmers were essential to the creation of a good society
- (D) a farmer who guided the agrarian movement toward an emphasis on economic development

**15.** The phrase “subscribed to” in line 8 is closest in meaning to

- (A) contributed to
- (B) agreed with
- (C) thought about
- (D) expanded on

**16.** Which of the following statements is supported by the information in paragraph 1?

- (A) All government policy makers accepted Jefferson’s views of agriculture and farmers.
- (B) Agricultural production declined between 1783 and 1861.
- (C) The majority of farmers worked for the government.
- (D) Agriculture was a vital part of the nation’s economy.

**17.** According to the passage , the national and state governments did all of the following EXCEPT

- (A) build roads
- (B) import new plant varieties
- (C) give farmers money for their crops
- (D) develop policies that helped farmers export their products

**18.** All of the following are mentioned as examples of farmers’ meeting the expectations of agrarian philosophers EXCEPT

- (A) obtaining information from farm newspapers
- (B) accumulating personal wealth
- (C) planting new crops
- (D) becoming more scientific

19. The word “stunning” in line 24 is closest in meaning to  
 (A) predictable (B) impressive (C) famous (D) gradual
20. Which of the following statements is best supported by paragraph 4?  
 (A) Agricultural development contributed to development in other parts of the economy.  
 (B) European agricultural products were of a higher quality than those produced in the United States.  
 (C) The growing settlement of the West led to a decrease in agricultural production.  
 (D) Farmers were influenced more by government policies than by market opportunities.

### Question 21-29



The wide variety of climates in North America has helped spawn a complex pattern of soil regions. In general, the realm’s soils also reflect the broad environmental partitioning into “humid America” and “arid America.” Where annual precipitation exceeds 20 inches (50 centimeters), soils in humid areas tend to be acidic in chemical content. Since crops (5) do best in soils that are neither acidic (higher in acid content) nor alkaline (higher in salt content), fertilization is necessary to achieve the desired level of neutrality between the two. Arid America’s soils are typically alkaline and must be fertilized back toward neutrality by adding acidic compounds. Although many of these dryland soils, particularly in the Great Plains, are quite fertile, European settlers learned over a century ago that (10) water is the main missing ingredient in achieving their agricultural potential. In the 1970’s, certain irrigation methods were perfected and finally provided a real opportunity to expand more intensive farming west from the Central Lowland into the drier portions of the Great Plains. Glaciation also enhanced the rich legacy of fertile soils in the central United States, both from the deposition of mineral-rich glacial debris left by meltwater (15) and from thick layers of fine wind-blown glacial material, called loess, in and around the middle Mississippi Valley.

Natural vegetation patterns could be displayed on a map of North America, but the enormous human modification of the North American environment in modern times has all but reduced this regionalization scheme to the level of the hypothetical. Nonetheless, (20) the humid America-arid America dichotomy is still a valid generalization: the natural vegetation of areas receiving more than 20 inches of water yearly is forest, whereas the drier climates give rise to a grassland cover. The forests of North America tend to make a broad transition by latitude. In the Canadian North, needle-leaf forests dominate, but these coniferous trees become mixed with broadleaf deciduous trees as one crosses the (25) border into the Northeast United States. As one proceeds toward the Southeast, broadleaf vegetation becomes dominant. Arid America mostly consists of short-grass prairies or steppes. The only areas of true desert are in the Southwest.

21. What aspect of North America does the passage mainly discuss?  
(A) The wide variety of climates  
(B) Soil types and vegetation patterns  
(C) Improved irrigation methods and the expansion of agriculture  
(D) The change in precipitation patterns
22. The word “spawn ” in line 1 is closest in meaning to  
(A) distinguish                      (B) eliminate                      (C) protect                      (D) create
23. The word “partitioning” in line 2 is closest in meaning to  
(A) division                      (B) modification                      (C) opening                      (D) circulating
24. According to the passage, acidic soils tend to be associated with  
(A) a high salt content                      (B) an increase in farming  
(C) large amounts of rain                      (D) glacial meltwater
25. The word “enhanced” in line 13 is closest in meaning to  
(A) implied                      (B) increased                      (C) indicated                      (D) informed
26. How did glacial meltdown affect the soil in North America?  
(A) It redistributed the soil types                      (B) It added salt to the soil  
(C) It made the soil more neutral in content                      (D) It added minerals to the soil
27. The phrase “this regionalization scheme” in line 19 refers to the  
(A) movements of glacial deposits  
(B) patterns of natural vegetation  
(C) human modification of the North American environment  
(D) distinction between humid America and arid America
28. The word “transition” in line 23 is closest in meaning to  
(A) elevation                      (B) change                      (C) advantage                      (D) condition
29. The passage supports which of the following statements?  
(A) Arid America is not necessarily characterized by the presence of deserts  
(B) Most of Canada and the northeastern United States consists of short-grass prairies wherever natural vegetation has not been modified by humans  
(C) The accumulation of loess is primarily the result of irrigation  
(D) Glaciation removed the fertile layer of soil from much of the Mississippi Valley

**Questions 30-40**

- Most sources of illumination generate light over an appreciable period, and indeed if an object is lit for a very brief time (less than 1/25 second), the human eye will not react in time to see the object. A photographic emulsion---that is, a light-sensitive coating on photographic film, paper, or glass---will, however, record much shorter bursts of light. A
- (5) photographic flash can therefore be used to capture high-speed movement on film as well as to correct deficiencies of the normal surrounding lighting. Photoflash is now generated electronically, but the earliest form, first used in 1864, was a paper bag containing magnesium wire and some oxygen-rich substance, such as potassium chlorate. When the bag was ignited, the metal burned with an intense flash. A contemporary observer reported
- (10) that “this quite unsafe device seems to have done nothing worse than engulf the room in dense smoke and lead to pictures of dubious quality and odd poses.”

The evolution of the photoflash was slow, flashbulbs, containing fine wire made of a

- metal, such as magnesium or aluminum, capable of being ignited in an atmosphere of pure oxygen at low pressure, were introduced only in the 1920's. In the earliest type, the metal
- (15) was separated from the oxygen by a thin glass bulb. The flash was fired by piercing the bulb and allowing the oxygen to come into contact with the metal, which ignited spontaneously. Later bulbs were fired by an electric battery, which heated the wire by passing a small current through it. Other combinations, such as the pairing of oxygen difluoride with zirconium, have also been used. In each case enough energy is given out to
- (20) heat the oxidizable metal momentarily to a white-hot emission of visible light. The smoke particles are so small that they cool rapidly; but since they are white, they contribute to the brilliance by reflecting the light from their still-glowing neighbors. A slightly bigger form of the metal will burn for a longer time.

30. What does the passage mainly discuss?  
 (A) The history of the photoflash  
 (B) Theories about how the eye reacts to light  
 (C) The technology of modern photography  
 (D) The dangers of using the early photoflash
31. According to the passage, 1/25 second is the minimum amount of time required for the  
 (A) recording of an image on film  
 (B) generation of artificial light  
 (C) creation of a photographic emulsion  
 (D) human eye to react to light
32. According to the passage, an advantage of using a photoflash is that it  
 (A) can produce repeated bursts of light  
 (B) intensifies colors in photographs  
 (C) is short enough not to bother human eyes  
 (D) supplements existing lighting
33. The word "ignited" in line 9 is closest in meaning to  
 (A) set on fire  
 (B) cut into  
 (C) opened  
 (D) shaken
34. Which of the following phrases is defined in paragraph 1?  
 (A) "appreciable period" (line 1)  
 (B) "photographic emulsion" (line 3)  
 (C) "high-speed movement" (line 5)  
 (D) "odd poses" (line 11)
35. The word "evolution" in line 12 is closest in meaning to  
 (A) publicity  
 (B) adoption  
 (C) development  
 (D) manufacture
36. The function of the glass in the first flashbulbs was to  
 (A) produce the spark that initiated the flash  
 (B) magnify the light produced by the flash  
 (C) protect the photographer from the heat of the flash  
 (D) keep the metal and oxygen apart before the flash
37. The word "it" in line 18 refers to  
 (A) oxygen  
 (B) battery  
 (C) wire  
 (D) current
38. The word "momentarily" in line 20 is closest in meaning to  
 (A) effortlessly  
 (B) briefly  
 (C) electronically  
 (D) gradually
39. According to the passage, the white color of the smoke particles generated by a flashbulb contributes to  
 (A) rapid cooling  
 (B) bright illumination  
 (C) electrical conductivity  
 (D) intense heat
40. According to the passage, a flashbulb can be made to burn longer by using  
 (A) thicker wire  
 (B) more oxygen



(C) thinner glass

(D) continuous electricity

**Questions 41-50**

The stylistic innovation in painting known as Impressionism began in the 1870's. The Impressionists wanted to depict what they saw in nature, but they were inspired to portray fragmentary moments by the increasingly fast pace of modern life. They concentrated on the play of light over objects, people, and nature, breaking up seemingly solid surfaces,

- (5) stressing vivid contrast between colors in sunlight and shade, and depiction reflected light in all of its possibilities. Unlike earlier artists, they did not want to observe the world from indoors. They abandoned the studio, painting in the open air and recording spontaneous Impressions of their subjects instead of making outside sketches and then moving indoors to complete the work from memory.
- (10) Some of the Impressionists' painting methods were affected by technological advances. For example, the shift from the studio to the open air was made possible in part by the advent of cheap rail travel, which permitted easy and quick access to the countryside or seashore, as well as by newly developed chemical dyes and oils that led to collapsible paint tubes, which enabled artists to finish their paintings on the spot.
- (15) Impressionism acquired its name not from supporters but from angry art lovers who felt threatened by the new painting. The term "Impressionism" was born in 1874, when a group of artists who had been working together organized an exhibition of their paintings in order to draw public attention to their work. Reaction from the public and press was immediate, and derisive. Among the 165 paintings exhibited was one called
- (20) *Impression: Sunrise*, by Claude Monet (1840-1926). Viewed through hostile eyes, Monet's painting of a rising sun over a misty, watery scene seemed messy, slapdash, and an affront to good taste. Borrowing Monet's title, art critics extended the term "Impressionism" to the entire exhibit. In response, Monet and his 29 fellow artists in the exhibit adopted the same name as a badge of their unity, despite individual differences.
- (25) From then until 1886 Impressionism had all the zeal of a "church", as the painter Renoir put it. Monet was faithful to the Impressionist creed until his death, although many of the others moved on to new styles.

41. What aspect of painting in the nineteenth century does the passage mainly discuss?  
(A) The impact of some artists' resistance to the fast pace of life  
(B) The differences between two major styles of art  
(C) A technological advance in the materials used by artists  
(D) A group of artists with a new technique and approach to art
42. The word "depict" in line 2 is closest in meaning to  
(A) reorganize                      (B) deform                      (C) represent                      (D) justify
43. According to the passage, which of the following was one of the distinguishing characteristics of Impressionist painting?  
(A) The emphasis on people rather than nature scenes  
(B) The way the subjects were presented from multiple angles  
(C) The focus on small solid objects  
(D) The depiction of the effects of light and color
44. Which of the following is a significant way in which Impressionists were different from the artists that preceded them?  
(A) They began by making sketches of their subjects  
(B) They painted their subjects out-of-doors  
(C) They preferred to paint from memory

- (D) They used subjects drawn from modern life
45. The word "advent" in line 12 is closest in meaning to  
(A) achievement            (B) acceptance            (C) arrival            (D) advantage
46. The exhibition of paintings organized in 1874 resulted in all of the following EXCEPT  
(A) attracting attention from the public  
(B) a negative reaction from the press  
(C) an immediate demand for the paintings exhibited  
(D) creating a name for a new style of painting
47. The word "affront" in line 22 is closest in meaning to  
(A) insult            (B) encouragement            (C) return            (D) credit
48. The rejection of the Impressionist exhibition by critics was caused by which of the following?  
(A) The small number of paintings on display  
(B) Lack of interest in exhibitions by young artists  
(C) The similarity between all the paintings exhibited  
(D) Anger about seemingly poorly painted art
49. The author mentions Renoir in line 25 to give an example of an artist who  
(A) became as famous as Monet  
(B) was consistently praised by art critics  
(C) described the enthusiasm of the Impressionists for their work  
(D) was in favor of a traditional style of painting
50. The word "others" in line 27 refers to  
(A) art critics            (B) fellow artists  
(C) individual differences            (D) new styles

# PRACTICE TEST 04

## October 2003

### Questions 1-9

Europa is the smallest of planet Jupiter's four largest moons and the second moon out from Jupiter. Until 1979, it was just another astronomy textbook statistic. Then came the close-up images obtained by the exploratory spacecraft Voyager 2, and within days, Europa was transformed in our perception, at least into one of the solar system's most intriguing worlds. The biggest initial surprise was the almost total lack of detail, especially from far away. Even at close range, the only visible features are thin, kinked brown lines resembling cracks in an eggshell. And this analogy is not far off the mark.

The surface of Europa is almost pure water ice, but a nearly complete absence of craters indicates that Europa's surface ice resembles Earth's Antarctic ice cap. The eggshell analogy may be quite accurate since the ice could be as little as a few kilometers thick—a true shell around what is likely a subsurface liquid ocean that, in turn, encases a rocky core. The interior of Europa has been kept warm over the eons by tidal forces generated by the varying gravitational tugs of the other big moons as they wheel around Jupiter. The tides on Europa pull and relax in an endless cycle. The resulting internal heat keeps what would otherwise be ice melted almost to the surface. The cracklike marks on Europa's icy face appear to be fractures where water or slush oozes from below.

Soon after Voyager 2's encounter with Jupiter in 1979, when the best images of Europa were obtained, researchers advanced the startling idea that Europa's subsurface ocean might harbor life. Life processes could have begun when Jupiter was releasing a vast store of internal heat. Jupiter's early heat was produced by the compression of the material forming the giant planet. Just as the Sun is far less radiant today than the primal Sun, so the internal heat generated by Jupiter is minor compared to its former intensity. During this warm phase, some 4.6 billion years ago, Europa's ocean may have been liquid right to the surface, making it a crucible for life.

1. What does the passage mainly discuss?
  - (A) The effect of the tides on Europa's interior
  - (B) Temperature variations on Jupiter's moons
  - (C) Discoveries leading to a theory about one of Jupiter's moons
  - (D) Techniques used by Voyager 2 to obtain close-up images.
2. The word "intriguing" in line 5 is closest in meaning to
  - (A) changing
  - (B) perfect
  - (C) visible
  - (D) fascinating
3. In line 7, the author mentions "cracks in an eggshell" in order to help readers
  - (A) visualize Europa as scientists saw it in the Voyager 2 images
  - (B) appreciate the extensive and detailed information available by viewing Europa from far away
  - (C) understand the relationship of Europa to the solar system
  - (D) recognize the similarity of Europa to Jupiter's other moons
4. It can be inferred from the passage that astronomy textbooks prior to 1979
  - (A) provided many contradictory statistics about Europa
  - (B) considered Europa the most important of Jupiter's moons
  - (C) did not emphasize Europa because little information of interest was available
  - (D) did not mention Europa because it had not yet been discovered

5. What does the author mean by stating in line 7 that “this analogy is not far off the mark”?
- (A) The definition is not precise. (B) The discussion lacks necessary information.  
(C) The differences are probably significant. (D) The comparison is quite appropriate.
6. It can be inferred from the passage that Europa and Antarctica have in common which of the following?
- (A) Both appear to have a surface with many craters.  
(B) Both may have water beneath a thin, hard surface.  
(C) Both have an ice cap that is melting rapidly.  
(D) Both have areas encased by a rocky exterior.
7. The word “endless” in line 14 is closest in meaning to
- (A) new (B) final (C) temporary (D) continuous
8. According to the passage, what is the effect of Jupiter’s other large moons on Europa?
- (A) They prevent Europa’s subsurface waters from freezing.  
(B) They prevent tides that could damage Europa’s surface.  
(C) They produce the very hard layer of ice that characterizes Europa.  
(D) They assure that the gravitational pull on Europa is maintained at a steady level.
9. According to the passage, what is believed to cause the thin lines seen on Europa’s surface?
- (A) A long period of extremely high tides  
(B) Water breaking through from beneath the surface ice  
(C) The continuous pressure of slush on top of the ice  
(D) Heat generated by the hot rocky core

### Question 10-19

Both in what is now the eastern and the southwestern United States, the peoples of the Archaic era (8,000-1,000 B.C) were, in a way, already adapted to beginnings of cultivation through their intensive gathering and processing of wild plant foods. In both areas, there was a well-established ground stone tool technology, a method of pounding and grinding nuts and other plant foods, that could be adapted to newly cultivated foods. By the end of the Archaic era, people in eastern North America had domesticated certain native plants, including sunflowers; weeds called goosefoot, sumpweed, or marsh elder; and squash or gourds of some kind. These provided seeds that were important sources of carbohydrates and fat in the diet.

The earliest cultivation seems to have taken place along the river valleys of the Midwest and the Southeast, with experimentation beginning as early as 7,000 years ago and domestication beginning 4,000 to 2,000 years ago. Although the term “Neolithic” is not used in North American prehistory, these were the first steps toward the same major subsistence changes that took place during the Neolithic (8,000-2,000 B.C.) period elsewhere in the world.

Archaeologists debate the reasons for beginning cultivation in the eastern part of the continent. Although population and sedentary living were increasing at the time, there is little evidence that people lacked adequate wild food resources; the newly domesticated foods supplemented a continuing mixed subsistence of hunting, fishing, and gathering wild plants. Increasing predictability of food supplies may have been a motive. It has been suggested that some early cultivation was for medicinal and ceremonial plants rather than for food. One archaeologist has pointed out that the early domesticated plants were all weedy species that do well in open, disturbed habitats, the kind that would form around human settlements where people cut down trees, trample the ground, deposit trash, and

- (25) dig holes. It has been suggested that sunflower, sumpweed, and other plants almost domesticated themselves, that is, they thrived in human –disturbed habitats, so humans intensively collected them and began to control their distribution. Women in the Archaic communities were probably the main experimenters with cultivation, because ethnoarchaeological evidence tells us that women were the main collectors of plant food and had detailed knowledge of plants.
10. The passage mainly discusses which of the following aspects of the life of Archaic peoples?  
(A) The principal sources of food that made up their diet  
(B) Their development of ground stone tool technology  
(C) Their development of agriculture  
(D) Their distribution of work between men and women
11. The word “these” in line 13 refers to  
(A) seeds (B) river valleys  
(C) the Midwest and the Southeast (D) experimentation and domestication
12. According to the passage, when did the domestication of plants begin in North America?  
(A) 7,000 years ago (B) 4,000 to 2,000 years ago  
(C) Long after the Neolithic period (D) Before the Archaic period
13. The word “adequate” in line 18 is closest in meaning to  
(A) sufficient (B) healthful (C) varied (D) dependable
14. According to the passage, which of the following was a possible motive for the cultivation of plants in eastern North America?  
(A) Lack of enough wild food sources  
(B) The need to keep trees from growing close to settlements  
(C) Provision of work for an increasing population  
(D) Desire for the consistent availability of food
15. The phrase “rather than” in line 21 is closest in meaning to  
(A) in addition to (B) instead of (C) as a replacement (D) such as
16. The plant “sumpweed” is mentioned in line 25 in order to  
(A) contrast a plant with high nutritional value with one with little nutritional value  
(B) explain the medicinal use of a plant  
(C) clarify which plants grew better in places where trees were not cut down  
(D) provide an example of a plant that was easy to domesticate
17. The word “thrived” in line 26 is closest in meaning to  
(A) stayed (B) originated (C) grew well (D) died out
18. According to the passage, which of the following is true about all early domesticated plants?  
(A) They were varieties of weeds.  
(B) They were moved from disturbed areas.  
(C) They succeeded in areas with many trees.  
(D) They failed to grow in trampled or damaged areas.
19. According to the passage, it is thought that most of the people who began cultivating plants were  
(A) medical workers (B) leaders of ceremonies  
(C) women (D) hunters

## Questions 20-29

Many ants forage across the countryside in large numbers and undertake mass migrations; these activities proceed because one ant lays a trail on the ground for the others to follow. As a worker ant returns home after finding a source of food, it marks the route by intermittently touching its stinger to the ground and depositing a tiny amount of trail pheromone – a mixture of chemicals that delivers diverse messages as the context changes. These trails incorporate no directional information and may be followed by other ants in either direction.

Unlike some other messages, such as the one arising from a dead ant, a food trail has to be kept secret from members of other species. It is not surprising then that ant species use a wide variety of compounds as trail pheromones. Ants can be extremely sensitive to these signals. Investigators working with the trail pheromone of the leafcutter ant *Atta texana* calculated that one milligram of this substance would suffice to lead a column of ants three times around Earth.

The vapor of the evaporating pheromone over the trail guides an ant along the way, and the ant detects this signal with receptors in its antennae. A trail pheromone will evaporate to furnish the highest concentration of vapor right over the trail, in what is called a vapor space. In following the trail, the ant moves to the right and left, oscillating from side to side across the line of the trail itself, bringing first one and then the other antenna into the vapor space. As the ant moves to the right, its left antenna arrives in the vapor space. The signal it receives causes it to swing to the left, and the ant then pursues this new course until its right antenna reaches the vapor space. It then swings back to the right, and so weaves back and forth down the trail.

20. What does the passage mainly discuss?  
 (A) The mass migration of ants (B) How ants mark and follow a chemical trail  
 (C) Different species of ants around the world (D) The information contained in pheromones
21. The word “forage” in line 1 is closest in meaning to  
 (A) look up (B) walk toward (C) revolve around (D) search for food
22. The word “intermittently” in line 4 is closest in meaning to  
 (A) periodically (B) incorrectly (C) rapidly (D) roughly
23. The phrase “the one” in line 8 refers to a single  
 (A) message (B) dead ant (C) food trail (D) species
24. According to the passage, why do ants use different compounds as trail pheromones?  
 (A) To reduce their sensitivity to some chemicals  
 (B) To attract different types of ants  
 (C) To protect their trail from other species  
 (D) To indicate how far away the food is
25. The author mentions the trail pheromone of the leafcutter ant in line 11 to point out  
 (A) how little pheromone is needed to mark a trail  
 (B) the different types of pheromones ants can produce  
 (C) a type of ant that is common in many parts of the world  
 (D) that certain ants can produce up to one milligram of pheromone

26. According to the passage, how are ants guided by trail pheromones?  
(A) They concentrate on the smell of food.  
(B) They follow an ant who is familiar with the trail  
(C) They avoid the vapor spaces by moving in a straight line.  
(D) They sense the vapor through their antennae.
27. The word “furnish” in line 16 is closest in meaning to  
(A) include (B) provide (C) cover (D) select
28. The word “oscillating” in line 17 is closest in meaning to  
(A) falling (B) depositing (C) swinging (D) starting
29. According to the passage, the highest amount of pheromone vapor is found  
(A) in the receptors of the ants (B) just above the trail  
(C) in the source of food (D) under the soil along the trail

### Questions 30-39

Native Americans probably arrived from Asia in successive waves over several millennia, crossing a plain hundreds of miles wide that now lies inundated by 160 feet of water released by melting glaciers. For several periods of time, the first beginning around 60,000 B.C. and the last ending around 7,000 B.C., this land bridge was open. The

(5) first people traveled in the dusty trails of the animals they hunted. They brought with them not only their families, weapons, and tools but also a broad metaphysical understanding, sprung from dreams and visions and articulated in myth and song, which complemented their scientific and historical knowledge of the lives of animals and of people. All this they shaped in a variety of languages, bringing into being oral literatures of power and beauty.

(10) Contemporary readers, forgetting the origins of western epic, lyric, and dramatic forms, are easily disposed to think of “literature” only as something written. But on reflection it becomes clear that the more critically useful as well as the more frequently employed sense of the term concerns the artfulness of the verbal creation, not its mode of presentation. Ultimately, literature is aesthetically valued, regardless of language, culture,

(15) or mode of presentation, because some significant verbal achievement results from the struggle in words between tradition and talent. Verbal art has the ability to shape out a compelling inner vision in some skillfully crafted public verbal form.

Of course, the differences between the written and oral modes of expression are not without consequences for an understanding of Native American literature. The essential

(20) difference is that a speech event is an evolving communication, an “emergent form,” the shape, functions, and aesthetic values of which become more clearly realized over the course of the performance. In performing verbal art, the performer assumes responsibility for the manner as well as the content of the performance, while the audience assumes the responsibility for evaluating the performer’s competence in both areas. It is this intense

(25) mutual engagement that elicits the display of skill and shapes the emerging performance. Where written literature provides us with a tradition of texts, oral literature offers a tradition of performances.

30. According to the passage, why did the first people who came to North America leave their homeland?  
(A) They were hoping to find a better climate.  
(B) They were seeking freedom.  
(C) They were following instructions given in a dream.

- (D) They were looking for food.
31. The phrase “are easily disposed” in line 11 is closest in meaning to  
 (A) demonstrate reluctance (B) readily encourage others  
 (C) have a tendency (D) often fail
32. The word “Ultimately” in line 14 is closest in meaning to  
 (A) frequently (B) normally  
 (C) whenever possible (D) in the end
33. The word “compelling” in line 17 is closest in meaning to  
 (A) joyous (B) intricate (C) competing (D) forceful
34. What is the main point of the second paragraph?  
 (A) Public performance is essential to verbal art.  
 (B) Oral narratives are a valid form of literature.  
 (C) Native Americans have a strong oral tradition in art.  
 (D) The production of literature provides employment for many artists.
35. What can be inferred about the nature of the Native American literature discussed in the passage?  
 (A) It reflects historical and contemporary life in Asia.  
 (B) Its main focus is on daily activities.  
 (C) It is based primarily on scientific knowledge.  
 (D) It is reshaped each time it is experienced.
36. According to the passage, what responsibility does the audience of a verbal art performance have ?  
 (A) They provide financial support for performances.  
 (B) They judge the quality of the content and presentation.  
 (C) They participate in the performance by chanting responses.  
 (D) They determine the length of the performance by requesting a continuation.
37. Which of the following is NOT true of the Native American literature discussed in the passage?  
 (A) It involves acting. (B) It has ancient origins.  
 (C) It has a set form. (D) It expresses an inner vision.
38. What can be inferred from the passage about the difference between written and oral literature?  
 (A) Written literature reflects social values better than oral literature does.  
 (B) Written literature involves less interaction between audience and creator during the creative progress than oral literature does.  
 (C) Written literature usually is not based on historical events, whereas oral literature is.  
 (D) Written literature is not as highly respected as oral literature is.
39. What is the author’s attitude toward Native American literature?  
 (A) Admiring of its form (B) Critical of the cost of its production  
 (C) Amused by its content (D) Skeptical about its origins



Questions 40-50

The cities in the United States have been the most visible sponsors and beneficiaries of projects that place art in public places. They have shown exceptional imagination in applying the diverse forms of contemporary art to a wide variety of purposes. The activities observed in a number of “pioneer” cities sponsoring art in public places – a broadening exploration of public sites, an increasing awareness among both sponsors and the public of the varieties of contemporary artistic practice, and a growing public enthusiasm – are increasingly characteristic of cities across the country. With many cities now undergoing renewed development, opportunities are continuously emerging for the inclusion of art in new or renewed public environments, including buildings, plazas, parks, and transportation facilities. The result of these activities is a group of artworks that reflect the diversity of contemporary art and the varying character and goals of the sponsoring communities.

In sculpture, the projects range from a cartoonlike *Mermaid* in Miami Beach by Roy Lichtenstein to a small forest planted in New York City by Alan Sonfist. The use of murals followed quickly upon the use of sculpture and has brought to public sites the work of artists as different as the realist Thomas Hart Benton and the Pop artist Robert Rauschenberg. The specialized requirements of particular urban situations have further expanded the use of art in public places: in Memphis, sculptor Richard Hunt has created a monument to Martin Luther King, Jr., who was slain there; in New York, Dan Flavin and Bill Brand have contributed neon and animation works to the enhancement of mass transit facilities. And in numerous cities, art is being raised as a symbol of the commitment to revitalize urban areas.

By continuing to sponsor projects involving a growing body of art in public places, cities will certainly enlarge the situations in which the public encounters and grows familiar with the various forms of contemporary art. Indeed, cities are providing artists with an opportunity to communicate with a new and broader audience. Artists are recognizing the distinction between public and private spaces, and taking that into account when executing their public commissions. They are working in new, often more durable media, and on an unaccustomed scale.

40. What is the passage mainly about?  
(A) The influence of art on urban architecture in United States cities  
(B) The growth of public art in United States cities.  
(C) The increase in public appreciation of art in the United States  
(D) The differences between public art in Europe and the United States.
41. The word “exceptional” in line 2 is closest in meaning to  
(A) remarkable                      (B) fearless                      (C) expert                      (D) visible
42. All of the following are mentioned in paragraph 1 as results of the trend toward installing contemporary art in public places in the United States EXCEPT  
(A) the transfer of artwork from private to public sites  
(B) artworks that represent a city’s special character  
(C) greater interest in art by the American public  
(D) a broader understanding of the varieties of contemporary art

43. According to the passage, new settings for public art are appearing as a result of  
 (A) communities that are building more art museums  
 (B) artists who are moving to urban areas  
 (C) urban development and renewal  
 (D) an increase in the number of artists in the United States.
44. The author mentions Roy Lichtenstein and Alan Sonfist in line 14 in order to  
 (A) show that certain artist are famous mostly for their public art  
 (B) introduce the subject of unusual works of art  
 (C) demonstrate the diversity of artworks displayed in public  
 (D) contrast the cities of Miami Beach and New York
45. It can be inferred from the passage that the city of Memphis sponsored a work by Richard Hunt because the city authorities believed that  
 (A) the sculpture would symbolize the urban renewal of Memphis  
 (B) Memphis was an appropriate place for a memorial to Martin Luther King, Jr.  
 (C) the artwork would promote Memphis as a center for the arts  
 (D) the sculpture would provide a positive example to other artists.
46. The word "enhancement" in line 20 is closest in meaning to  
 (A) replacement                      (B) design                      (C) improvement                      (D) decoration
47. The word "revitalize" in line 22 is closest in meaning to  
 (A) show the importance of                      (B) promise to enlarge  
 (C) bring new life to                      (D) provide artworks for
48. The word "that" in line 27 refers to  
 (A) contemporary art                      (B) opportunity  
 (C) audience                      (D) distinction
49. The word "executing" in line 28 is closest in meaning to  
 (A) judging                      (B) selling                      (C) explaining                      (D) producing
50. According to paragraph 3, artists who work on public art projects are doing all of the following EXCEPT  
 (A) creating artworks that are unusual in size  
 (B) raising funds to sponsor various public projects  
 (C) exposing a large number of people to works of art  
 (D) using new materials that are long-lasting.

# PRACTICE TEST 05

## January 2002

### Questions 1-9

In 1903 the members of the governing board of the University of Washington. in  
Seattle. engaged a firm of landscape architects, specialists in the design of outdoor  
environments--Olmsted Brothers of Brookline, Massachusetts--to advise them on an  
*Line* appropriate layout for the university grounds. The plan impressed the university officials,  
(5) and in time many of its recommendations were implemented. City officials in Seattle, the  
largest city in the northwestern United States, were also impressed, for they employed the  
same organization to study Seattle's public park needs. John Olmsted did the investigation  
and subsequent report on Seattle's parks. He and his brothers believed that parks should  
(10) be adapted to the local topography, utilize the area's trees and shrubs, and be available to  
the entire community. They especially emphasized the need for natural, serene settings  
where hurried urban dwellers could periodically escape from the city. The essence of the  
Olmsted park plan was to develop a continuous driveway, twenty miles long, that would  
tie together a whole series of parks, playgrounds, and parkways. There would be local  
parks and squares, too, but all of this was meant to supplement the major driveway,  
(15) which was to remain the unifying factor for the entire system.

In November of 1903 the city council of Seattle adopted the Olmsted Report, and  
it automatically became the master plan for the city's park system. Prior to this report,  
Seattle's park development was very limited and funding meager. All this changed  
after the report. Between 1907 and 1913, city voters approved special funding measures  
(20) amounting to \$4,000,000. With such unparalleled sums at their disposal, with the Olmsted  
guidelines to follow, and with the added incentive of wanting to have the city at its best  
for the Alaska-Yukon-Pacific Exposition of 1909, the Parks Board bought aggressively.  
By 1913 Seattle had 25 parks amounting to 1,400 acres, as well as 400 acres in  
playgrounds, pathways, boulevards, and triangles. More lands would be added in the  
(25) future, but for all practical purposes it was the great land surge of 1907-1913 that  
established Seattle's park system.

1. What does the passage mainly discuss?  
(A) The planned development of Seattle's public park system  
(B) The organization of the Seattle city government  
(C) The history of the Olmsted Brothers architectural firm  
(D) The design and building of the University of Washington campus
2. The word "engaged" in line 2 is closest in meaning to  
(A) trained                      (B) hired                      (C) described                      (D) evaluated
3. The word "subsequent" in line 8 is closest in meaning to  
(A) complicated                      (B) alternate                      (C) later                      (D) detailed
4. Which of the following statements about parks does NOT reflect the views of the Olmsted Brothers firm?  
(A) They should be planted with trees that grow locally.  
(B) They should provide a quiet, restful environment.  
(C) They should be protected by limiting the number of visitors from the community.  
(D) They should be designed to conform to the topography of the area.

5. Why does the author mention "local parks and squares" in lines 13-14 when talking about the Olmsted plan?
- (A) To emphasize the difficulties facing adoption of the plan  
 (B) To illustrate the comprehensive nature of the plan  
 (C) To demonstrate an omission in the plan  
 (D) To describe Seattle's landscape prior to implementation of the plan
6. Which of the following can be inferred from the passage about how citizens of Seattle received the Olmsted Report?
- (A) They were hostile to the report's conclusions.  
 (B) They ignored the Olmsteds' findings.  
 (C) They supported the Olmsteds' plans.  
 (D) They favored the city council's seeking advice from another firm.
7. According to the passage, when was the Olmsted Report officially accepted as the master plan for the Seattle public park system?
- (A) 1903                      (B) 1907                      (C) 1909                      (D) 1913
8. The word "sums" in line 20 is closest in meaning to
- (A) problems                      (B) amounts                      (C) services                      (D) debts
9. According to the passage, which of the following was most directly influenced by the Alaska-Yukon-Pacific Exposition?
- (A) The University of Washington                      (B) Brookline, Massachusetts  
 (C) The mayor of Seattle                      (D) The Seattle Parks Board

### Questions 10-19

No two comets ever look identical, but they have basic features in common, one of the most obvious of which is a coma. A coma looks like a misty, patch of light with one or more tails often streaming from it in the direction away from the Sun.

*Line*                      At the heart of a comet's coma lies a nucleus of solid material, typically no more than  
 (5) 10 kilometers across. The visible coma is a huge cloud of gas and dust that has escaped from the nucleus, which it then surrounds like an extended atmosphere. The coma can extend as far as a million kilometers outward from the nucleus. Around the coma there is often an even larger invisible envelope of hydrogen gas.

(10) The most graphic proof that the grand spectacle of a comet develops from a relatively small and inconspicuous chunk of ice and dust was the close-up image obtained in 1986 by the European Giotto probe of the nucleus of Halley's Comet. It turned out to be a bit like a very dark asteroid, measuring 16 by 8 kilometers. Ices have evaporated from its outer layers to leave a crust of nearly black dust all over the surface. Bright jets of gas from evaporating ice burst out on the side facing the Sun, where the surface gets heated up, carrying dust  
 (15) with them. This is how the coma and the tails are created.

Comets grow tails only when they get warm enough for ice and dust to boil off. As a comet's orbit brings it closer to the Sun, first the coma grows, then two distinct tails usually form. One, the less common kind, contains electrically charged (i.e., ionized) atoms of gas, which are blown off directly in the direction away from the Sun by the magnetic field of  
 (20) the solar wind. The other tail is made of neutral dust particles, which get gently pushed back by the pressure of the sunlight itself. Unlike the ion tail, which is straight, the dust tail becomes curved as the particles follow their own orbits around the Sun.

10. The passage focuses on comets primarily in terms of their  
(A) orbital patterns      (B) coma and tails      (C) brightness      (D) size
11. The word "identical" in line 1 is closest in meaning to  
(A) equally fast      (B) exactly alike      (C) near each other      (D) invisible
12. The word "heart" in line 4 is closest in meaning to  
(A) center      (B) edge      (C) tail      (D) beginning
13. Why does the author mention the Giotto probe in paragraph 3?  
(A) It had a relatively small and inconspicuous nucleus.  
(B) It was very similar to an asteroid.  
(C) It was covered with an unusual black dust.  
(D) It provided visual evidence of the makeup of a comet's nucleus.
14. It can be inferred from the passage that the nucleus of a comet is made up of  
(A) dust and gas      (B) ice and dust  
(C) hydrogen gas      (D) electrically charged atoms
15. The word "graphic" in line 9 is closest in meaning to  
(A) mathematical      (B) popular      (C) unusual      (D) vivid
16. Which of the following occurred as the ices from Halley's Comet evaporated?  
(A) Black dust was left on the comet's surface.  
(B) The nucleus of the comet expanded.  
(C) The tail of the comet straightened out.  
(D) Jets of gas caused the comet to increase its speed.
17. All of the following statements about the tails of comets are true EXCEPT:  
(A) They can contain electrically charged or neutral particles.  
(B) They can be formed only when there is sufficient heat.  
(C) They are formed before the coma expands.  
(D) They always point in the direction away from the Sun.
18. The word "distinct" in line 17 is closest in meaning to  
(A) visible      (B) gaseous      (C) separate      (D) new
19. Compared to the tail of electrically charged atoms, the tail of neutral dust particles is relatively  
(A) long      (B) curved      (C) unpredictable      (D) bright

## Questions 20-29

Many prehistoric people subsisted as hunters and gatherers. Undoubtedly, game animals, including some very large species, provided major components of human diets. An important controversy centering on the question of human effects on prehistoric wildlife concerns the sudden disappearance of so many species of large animals at or near the end of the Pleistocene epoch. Most paleontologists suspect that abrupt changes in climate led to the mass extinctions. Others, however, have concluded that prehistoric people drove many of those species to extinction through overhunting. In their "Pleistocene overkill hypothesis," they cite what seems to be a remarkable coincidence between the arrival of prehistoric peoples in North and South America and the time during which mammoths, giant ground sloths, the giant bison, and numerous other large mammals became extinct. Perhaps the human species was driving others to extinction long before the dawn of history. Hunter-gatherers may have contributed to Pleistocene extinctions in more indirect ways. Besides overhunting, at least three other kinds of effects have been suggested: direct competition, imbalances between competing species of game animals, and early agricultural practices. Direct competition may have brought about the demise of large carnivores such as the saber-toothed cats. These animals simply may have been unable to compete with the increasingly sophisticated hunting skills of Pleistocene people. Human hunters could have caused imbalances among game animals, leading to the extinctions of species less able to compete. When other predators such as the gray wolf prey upon large mammals, they generally take high proportions of each year's crop of young. Some human hunters, in contrast, tend to take the various age-groups of large animals in proportion to their actual occurrence. If such hunters first competed with the larger predators and then replaced them, they may have allowed more young to survive each year, gradually increasing the populations of favored species. As these populations expanded, they in turn may have competed with other game species for the same environmental niche, forcing the less hunted species into extinction. This theory, suggests that human hunters played an indirect role in Pleistocene extinctions by hunting one species more than another.

20. What does the passage mainly discuss?  
 (A) The effects of human activities on prehistoric wildlife  
 (B) The origins of the hunter-gatherer way of life  
 (C) The diets of large animals of the Pleistocene epoch  
 (D) The change in climate at the end of the Pleistocene epoch
21. The word "Undoubtedly" in line 1 is closest in meaning to  
 (A) occasionally            (B) unexpectedly            (C) previously            (D) certainly
22. The word "components" in line 2 is closest in meaning to  
 (A) parts            (B) problems            (C) changes            (D) varieties
23. Which of the following is mentioned as supporting the Pleistocene overkill hypothesis?  
 (A) Many of the animals that became extinct were quite large.  
 (B) Humans migrated into certain regions around the time that major extinctions occurred.  
 (C) There is evidence that new species were arriving in areas inhabited by humans.  
 (D) Humans began to keep and care for certain animals.
24. The word "Besides" in line 13 is closest in meaning to  
 (A) caused by            (B) whereas            (C) in addition to            (D) in favor of

25. The author mentions saber-toothed cats in line 16 as an example of a carnivore that  
(A) became extinct before the Pleistocene epoch  
(B) was unusually large for its time  
(C) was not able to compete with humans  
(D) caused the extinction of several species
26. The word "they" in line 20 refers to  
(A) human hunters  
(B) game animals  
(C) other predators  
(D) large mammals
27. According to the passage, what is one difference between the hunting done by some humans and the hunting done by gray wolves?  
(A) Some humans hunt more frequently than gray wolves.  
(B) Gray wolves hunt in larger groups than some humans.  
(C) Some humans can hunt larger animals than gray wolves can hunt.  
(D) Some humans prey on animals of all ages, but gray wolves concentrate their efforts on young animals.
28. The word "favored" in line 24 is closest in meaning to  
(A) large  
(B) escaping  
(C) preferred  
(D) local
29. According to the passage, the imbalances discussed in paragraph 3 may have resulted from  
(A) the effect of climate changes on large game animals  
(B) large animals moving into a new environment  
(C) humans hunting some species more than others  
(D) older animals not being able to compete with younger animals

### Questions 30-39

Tulips are Old World, rather than New World, plants, with the origins of the species lying in Central Asia. They became an integral part of the gardens of the Ottoman Empire from the sixteenth century onward, and, soon after, part of European life as well. Holland,

*Line* in particular, became famous for its cultivation of the flower.

- (5) A tenuous line marked the advance of the tulip to the New World, where it was unknown in the wild. The first Dutch colonies in North America had been established in New Netherlands by the Dutch West India Company in 1624, and one individual who settled in New Amsterdam (today's Manhattan section of New York City) in 1642 described the flowers that bravely colonized the settlers' gardens. They were the same
- (10) flowers seen in Dutch still-life paintings of the time: crown imperials, roses, carnations, and of course tulips. They flourished in Pennsylvania too, where in 1698 William Penn received a report of John Tateham's "Great and Stately Palace," its garden full of tulips. By 1760, Boston newspapers were advertising 50 different kinds of mixed tulip "roots." But the length of the journey between Europe and North America created many
- (15) difficulties. Thomas Hancock, an English settler, wrote thanking his plant supplier for a gift of some tulip bulbs from England, but his letter the following year grumbled that they were all dead.

- Tulips arrived in Holland, Michigan, with a later wave of early nineteenth-century Dutch immigrants who quickly colonized the plains of Michigan. Together with many
- (20) other Dutch settlements, such as the one at Pella, Iowa, they established a regular demand for European plants. The demand was bravely met by a new kind of tulip entrepreneur, the traveling salesperson. One Dutchman, Hendrick van de Schoot, spent six months in 1849

- traveling through the United States taking orders for tulip bulbs. While tulip bulbs were traveling from Europe to the United States to satisfy the nostalgic longings of homesick
- (25) English and Dutch settlers, North American plants were traveling in the opposite direction. In England, the enthusiasm for American plants was one reason why tulips dropped out of fashion in the gardens of the rich and famous.
30. Which of the following questions does the passage mainly answer?  
 (A) What is the difference between an Old World and a New World plant?  
 (B) Why are tulips grown in many different parts of the world?  
 (C) How did tulips become popular in North America?  
 (D) Where were the first Dutch colonies in North America located?
31. The word "integral" in line 2 is closest in meaning to  
 (A) interesting (B) fundamental (C) ornamental (D) overlooked
32. The passage mentions that tulips were first found in which of the following regions?  
 (A) Central Asia (B) Western Europe  
 (C) India (D) North America
33. The word "flourished" in line 11 is closest in meaning to  
 (A) were discovered (B) were marketed  
 (C) combined (D) thrived
34. The author mentions tulip growing in New Netherlands, Pennsylvania, and Michigan in order to illustrate how  
 (A) imported tulips were considered more valuable than locally grown tulips  
 (B) tulips were commonly passed as gifts from one family to another  
 (C) tulips grew progressively more popular in North America  
 (D) attitudes toward tulips varied from one location to another
35. The word "grumbled" in line 16 is closest in meaning to  
 (A) denied (B) warned (C) complained (D) explained
36. The passage mentions that one reason English and Dutch settlers planted tulips in their gardens was that tulips  
 (A) were easy to grow (B) had become readily available  
 (C) made them appear fashionable (D) reminded them of home
37. The word "they" in line 20 refers to  
 (A) tulips (B) plains (C) immigrants (D) plants
38. According to the passage, which of the following changes occurred in English gardens during the European settlement of North America?  
 (A) They grew in size in order to provide enough plants to export to the New World.  
 (B) They contained a wider variety of tulips than ever before.  
 (C) They contained many new types of North American plants.  
 (D) They decreased in size on the estates of wealthy people.
39. The passage mentions which of the following as a problem associated with the importation of tulips into North America?  
 (A) They were no longer fashionable by the time they arrived.  
 (B) They often failed to survive the journey.  
 (C) Orders often took six months or longer to fill.  
 (D) Settlers knew little about how to cultivate them.



Questions 40-50

Pheromones are substances that serve as chemical signals between members of the same species. They are secreted to the outside of the body and cause other individuals of the species to have specific reactions. Pheromones, which are sometimes called

*Line* "social hormones," affect a group of individuals somewhat like hormones do an individual  
(5) animal. Pheromones are the predominant medium of communication among insects (but rarely the sole method). Some species have simple pheromone systems and produce only a few pheromones, but others produce many with various functions. Pheromone systems are the most complex in some of the so-called social insects, insects that live in organized groups.

- (10) Chemical communication differs from that by sight or sound in several ways. Transmission is relatively slow (the chemical signals are usually airborne), but the signal can be persistent, depending upon the volatility of the chemical, and is sometimes effective over a very long range. Localization of the signal is generally poorer than localization of a sound or visual stimulus and is usually effected by the animal's moving  
(15) upwind in response to the stimulus. The ability to modulate a chemical signal is limited, compared with communication by visual or acoustic means, but some pheromones may convey different meanings and consequently result in different behavioral or physiological responses, depending on their concentration or when presented in combination. The modulation of chemical signals occurs via the elaboration of the number of exocrine  
(20) glands that produce pheromones. Some species, such as ants, seem to be very articulate creatures, but their medium of communication is difficult for humans to study and appreciate because of our own olfactory, insensitivity and the technological difficulties in detecting and analyzing these pheromones.

Pheromones play numerous roles in the activities of insects. They may act as alarm  
(25) substances, play a role in individual and group recognition, serve as attractants between sexes, mediate the formation of aggregations, identify foraging trails, and be involved in caste determination. For example, pheromones involved in caste determination include the "queen substance" produced by queen honey bees. Aphids, which are particularly vulnerable to predators because of their gregarious habits and sedentary nature, secrete an alarm pheromone when attacked that causes nearby aphids to respond by moving away.

40. What does the passage mainly discuss?

- (A) How insects use pheromones to communicate
- (B) How pheromones are produced by insects
- (C) Why analyzing insect pheromones is difficult
- (D) The different uses of pheromones among various insect species

41. The word "serve" in line 1 is closest in meaning to

- (A) improve
- (B) function
- (C) begin
- (D) rely

42. The purpose of the second mention of "hormones" in line 4 is to point out

- (A) chemical signals that are common among insects
- (B) specific responses of various species to chemical signals
- (C) similarities between two chemical substances
- (D) how insects produce different chemical substances

43. The word "sole" in line 6 is closest in meaning to

- (A) obvious
- (B) best
- (C) only
- (D) final

44. The passage suggests that the speed at which communication through pheromones occurs is dependent on how quickly they
- (A) lose their effectiveness
  - (B) evaporate in the air
  - (C) travel through the air
  - (D) are produced by the body
45. According to the passage, the meaning of a message communicated through a pheromone may vary when the
- (A) chemical structure of the pheromone is changed
  - (B) pheromone is excreted while other pheromones are also being excreted
  - (C) exocrine glands do not produce the pheromone
  - (D) pheromone is released near certain specific organisms
46. The word "detecting" in line 23 is closest in meaning to
- (A) controlling
  - (B) storing
  - (C) questioning
  - (D) finding
47. According to paragraph 2, which of the following has made the study of pheromones difficult?
- (A) Pheromones cannot be easily reproduced in chemical laboratories.
  - (B) Existing technology cannot fully explore the properties of pheromones.
  - (C) Pheromones are highly volatile.
  - (D) Pheromone signals are constantly changing.
48. The word "They" in line 24 refers to
- (A) pheromones
  - (B) roles
  - (C) activities
  - (D) insects
49. The word "sedentary" in line 29 is closest in meaning to
- (A) inactive
  - (B) inefficient
  - (C) unchangeable
  - (D) unbalanced
50. Pheromone systems are relatively complex in insects that
- (A) also communicate using sight and sound
  - (B) live underground
  - (C) prey on other insects
  - (D) live in organized groups

# PRACTICE TEST 06

## May 2002

### Questions 1-9

The term "folk song" has been current for over a hundred years, but there is still a good deal of disagreement as to what it actually means. The definition provided by the International Folk Music Council states that folk music is the music of ordinary people, which is passed on from person to person by being listened to rather than learned from the printed page. Other factors that help shape a folk song include: continuity (many performances over a number of years); variation (changes in words and melodies either through artistic interpretation or failure of memory); and selection (the acceptance of a song by the community in which it evolves).

When songs have been subjected to these processes their origin is usually impossible to trace. For instance, if a farm laborer were to make up a song and sing it to a couple of friends who like it and memorize it, possibly when the friends come to sing it themselves one of them might forget some of the words and make up new ones to fill the gap, while the other, perhaps more artistic, might add a few decorative touches to the tune and improve a couple of lines of text. If this happened a few times there would be many different versions, the song's original composer would be forgotten, and the song would become common property. This constant reshaping and re-creation is the essence of folk music. Consequently, modern popular songs and other published music, even though widely sung by people who are not professional musicians, are not considered folk music. The music and words have been set by a printed or recorded source, limiting scope for further artistic creation. These songs' origins cannot be disguised and therefore they belong primarily to the composer and not to a community.

The ideal situation for the creation of folk music is an isolated rural community. In such a setting folk songs and dances have a special purpose at every stage in a person's life, from childhood to death. Epic tales of heroic deeds, seasonal songs relating to calendar events, and occupational songs are also likely to be sung.

1. What does the passage mainly discuss?  
(A) Themes commonly found in folk music  
(B) Elements that define folk music  
(C) Influences of folk music on popular music  
(D) The standards of the International Folk Music Council
2. Which of the following statements about the term "folk song" is supported by the passage?  
(A) It has been used for several centuries.                      (B) The International Folk Music Council invented it  
(C) It is considered to be out-of-date.  
(D) There is disagreement about its meaning.
3. The word "it" in line 8 refers to  
(A) community                      (B) song                      (C) acceptance                      (D) memory
4. Which of the following is NOT mentioned in the passage as a characteristic of the typical folk song?  
(A) It is constantly changing over time.  
(B) it is passed on to other people by being performed.  
(C) It contains complex musical structures.  
(D) It appeals to many people.
5. The word "subjected" in line 9 is closest in meaning to

- (A) reduced                      (B) modified                      (C) exposed                      (D) imitated
6. The author mentions the farm laborer and his friends (lines 10-14) in order to do which of the following?
- (A) Explain how a folk song evolves over time  
 (B) Illustrate the importance of music to rural workers  
 (C) Show how subject matter is selected for a folk song  
 (D) Demonstrate how a community, chooses a folk song
7. According to the passage, why would the original composers of folk songs be forgotten?
- (A) Audiences prefer songs composed by professional musicians.  
 (B) Singers dislike the decorative touches in folk song tunes.  
 (C) Numerous variations of folk songs come to exist at the same time.  
 (D) Folk songs are not considered an important form of music.
8. The word "essence" in line 16 is closest in meaning to
- (A) basic nature                      (B) growing importance  
 (C) full extent                      (D) first phase
9. The author mentions that published music is not considered to be folk music because
- (A) the original composer can be easily identified  
 (B) the songs attract only the young people in a community  
 (C) the songs are generally performed by professional singers  
 (D) the composers write the music in rural communities

### Questions 10-20

Long before they can actually speak, babies pay special attention to the speech they hear around them. Within the first month of their lives, babies' responses to the sound of the human voice will be different from their responses to other sorts of auditory stimuli.

*Line* They will stop crying when they hear a person talking, but not if they hear a bell or the  
 (5) sound of a rattle. At first, the sounds that an infant notices might be only those words that receive the heaviest emphasis and that often occur at the ends of utterances. By the time they are six or seven weeks old, babies can detect the difference between syllables pronounced with rising and falling inflections. Very soon, these differences in adult stress and intonation can influence babies' emotional states and behavior. Long before they  
 (10) develop actual language comprehension, babies can sense when an adult is playful or angry, attempting to initiate or terminate new behavior, and so on, merely on the basis of cues such as the rate, volume, and melody of adult speech.

Adults make it as easy as they can for babies to pick up a language by exaggerating such cues. One researcher observed babies and their mothers in six diverse cultures and  
 (15) found that, in all six languages, the mothers used simplified syntax, short utterances and nonsense sounds, and transformed certain sounds into baby talk. Other investigators have noted that when mothers talk to babies who are only a few months old, they exaggerate the pitch, loudness, and intensity of their words. They also exaggerate their facial expressions, hold vowels longer, and emphasize certain words.

(20) More significant for language development than their response to general intonation is observation that tiny babies can make relatively fine distinctions between speech sounds. other words, babies enter the world with the ability to make precisely those perceptual discriminations that are necessary if they are to acquire aural language.

(25) Babies obviously derive pleasure from sound input, too: even as young as nine months they will listen to songs or stories, although the words themselves are beyond their understanding. For babies, language is a sensory-motor delight rather than the route to

prosaic meaning that it often is for adults.

10. What does the passage mainly discuss?
- (A) How babies differentiate between the sound of the human voice and other sounds
  - (B) The differences between a baby's and an adult's ability to comprehend language
  - (C) How babies perceive and respond to the human voice in their earliest stages of language development
  - (D) The response of babies to sounds other than the human voice
11. Why does the author mention a bell and a rattle in lines 4-5?
- (A) To contrast the reactions of babies to human and nonhuman sounds
  - (B) To give examples of sounds that will cause a baby to cry
  - (C) To explain how babies distinguish between different nonhuman sounds
  - (D) To give examples of typical toys that babies do not like
12. Why does the author mention syllables pronounced with rising and falling inflections in lines 7-8?
- (A) To demonstrate how difficult it is for babies to interpret emotions
  - (B) To illustrate that a six-week-old baby can already distinguish some language differences
  - (C) To provide an example of ways adults speak to babies
  - (D) To give a reason for babies' difficulty in distinguishing one adult from another
13. The word "diverse" in line 14 is closest in meaning to
- (A) surrounding
  - (B) divided
  - (C) different
  - (D) stimulating
14. The word "noted" in line 17 is closest in meaning to
- (A) theorized
  - (B) requested
  - (C) disagreed
  - (D) observed
15. The word "They" in line 18 refers to
- (A) mothers
  - (B) investigators
  - (C) babies
  - (D) words
16. The passage mentions all of the following as ways adults modify their speech when talking to babies EXCEPT
- (A) giving all words equal emphasis
  - (B) speaking with shorter sentences
  - (C) speaking more loudly than normal
  - (D) using meaningless sounds
17. The word "emphasize" in line 19 is closest in meaning to
- (A) stress
  - (B) repeat
  - (C) explain
  - (D) leave out
18. Which of the following can be inferred about the findings described in paragraph 2?
- (A) Babies who are exposed to more than one language can speak earlier than babies exposed to a single language.
  - (B) Mothers from different cultures speak to their babies in similar ways.
  - (C) Babies ignore facial expressions in comprehending aural language.
  - (D) The mothers observed by the researchers were consciously teaching their babies to speak.
19. What point does the author make to illustrate that babies are born with the ability to acquire language?
- (A) Babies begin to understand words in songs.
  - (B) Babies exaggerate their own sounds and expressions.
  - (C) Babies are more sensitive to sounds than are adults.
  - (D) Babies notice even minor differences between speech sounds.
20. According to the author, why do babies listen to songs and stories, even though they cannot understand them?
- (A) They understand the rhythm.
  - (B) They enjoy the sound.
  - (C) They can remember them easily.
  - (D) They focus on the meaning of their parents' words.

## Questions 21-29

Under the Earth's topsoil, at various levels, sometimes under a layer of rock, there are deposits of clay. Look at cuts where highways have been built to see exposed clay beds; or look at a construction site, where pockets of clay may be exposed. Rivers also reveal clay along their banks, and erosion on a hillside may make clay easily accessible.

(5) What is clay made of? The Earth's surface is basically rock, and it is this rock that gradually decomposes into clay. Rain, streams, alternating freezing and thawing, roots of trees and plants forcing their way into cracks, earthquakes, volcanic action, and glaciers--all of these forces slowly break down the Earth's exposed rocky crust into smaller and smaller pieces that eventually become clay.

(10) Rocks are composed of elements and compounds of elements. Feldspar, which is the most abundant mineral on the Earth's surface, is basically made up of the oxides silica and alumina combined with alkalies like potassium and some so-called impurities such as iron. Feldspar is an essential component of granite rocks, and as such it is the basis of clay.

(15) When it is wet, clay can be easily shaped to make a variety of useful objects, which can then be fired to varying degrees of hardness and covered with impermeable decorative coatings of glasslike material called glaze. Just as volcanic action, with its intense heat, fuses the elements in certain rocks into a glasslike rock called obsidian, so can we apply heat to earthen materials and change them into a hard, dense material. Different clays need different heat levels to fuse, and some, the low-fire clays, never become nonporous and

(20) watertight like highly fired stoneware. Each clay can stand only a certain amount of heat without losing its shape through sagging or melting. Variations of clay composition and the temperatures at which they are fired account for the differences in texture and appearance between a china teacup and an earthenware flowerpot.

21. The author's main point in paragraph 1 is that clay deposits

- (A) conceal layers of rock  
(B) can be found in various places  
(C) are usually small  
(D) must be removed from construction sites

22. It can be inferred from the passage that clay is LEAST likely to be plentiful in which of the following areas?

- (A) In desert sand dunes  
(B) In forests  
(C) On hillsides  
(D) Near rivers

23. The word "accessible" in line 4 is closest in meaning to

- (A) buried  
(B) improved  
(C) available  
(D) workable

24. According to the passage, rock breaks down into clay under all of the following conditions EXCEPT when

- (A) it is exposed to freezing and thawing  
(B) roots of trees force their way into cracks  
(C) it is combined with alkalies  
(D) natural forces wear away the Earth's crust

25. Why does the author mention feldspar in line 10?

- (A) It is often used as a substitute for clay.  
(B) It is damaged by the oxides in clay.  
(C) Its presence indicates inferior clay.  
(D) It is a major component of clay.

26. The word "it" in line 13 refers to

- (A) iron  
(B) feldspar  
(C) granite  
(D) clay

27. Based on the information in the passage, it can be inferred that low-fire clays are MOST appropriate for making objects that

- (A) must be strong  
(B) can be porous  
(C) have a smooth texture  
(D) are highly decorated

28. The phrase "account for" in line 22 is closest in meaning to  
(A) reduce (B) explain (C) combine with (D) list all of
29. The passage supports which of the following conclusions?  
(A) Clay deposits are only found deep in the Earth.  
(B) If clay contains too much iron it will melt when fired.  
(C) Only certain types of clay are appropriate for making china teacups.  
(D) If sufficient heat is applied, all clay will become nonporous.

### Questions 30-40

The smooth operation of an ant colony depends on ten to twenty different signals, most of which are pheromones (chemical signals triggering behavioral responses). It is estimated that red fire ants employ at least twelve different chemical signals. The simplest of these is the carbon dioxide from the respiration of an ant cluster, a chemical that acts as a pheromone to promote aggregation. Workers move toward a source of carbon dioxide, resulting in solitary ants moving to join a group. At the other extreme, the most complex of the fire ants' signals is probably colony odor, by which the workers of a particular colony or nest identify another worker as local or foreign. Each ant nest has its own odor as a result of its location, history, and local food supply. The resident ants pick up this odor on their bodies, so that ants of the same species, but from different nests, have different colony odors. This allows ants to identify intruders and maintain colony integrity.

Fire ants also make use of an alarm pheromone to alert workers to an emergency, and their scouts lay down a trail pheromone as a guide during mass migrations. A fire ant queen emits a chemical signal that identifies her to the colony's workers. They respond by scurrying to gather around her. The decomposing corpse of a dead ant also generates a signal, to which workers respond by eliminating the corpse from the nest.

Ants provide examples of both public (accessible to other species) and private messages. One of their most important private messages concerns food, for a food source is worth keeping secret. Each species marks its trails with signals that are meaningless to others, so that an ant crossing a trail left by another ant species typically notices nothing. On the other hand, a secret signal to mark a dead body is unnecessary. Many kinds of ants perceive a natural decomposition product of dead insects as a signal to remove a corpse. If an outsider recognizes this message and moves the body, no harm is done.

30. What aspect of ants does the passage mainly discuss?  
(A) The relationship between the queen and the worker ants  
(B) Ways in which ants use chemical signals  
(C) Methods ants use to identify food sources  
(D) The importance of respiration in the production of ant pheromones
31. The phrase "smooth operation" in line 1 is closest in meaning to  
(A) daily activity (B) effective functioning  
(C) delicate balance (D) permanent location
32. According to the passage, carbon dioxide serves which of the following functions for fire ants?  
(A) It protects the queen. (B) It attracts other ant species.  
(C) It informs workers of possible danger. (D) It encourages the ants to gather together.

33. The word "cluster" in line 4 is closest in meaning to  
 (A) organ (B) activity (C) group (D) cycle
34. According to the passage, each nest has a distinct odor that allows its inhabitants to  
 (A) find the location of the nest in the dark  
 (B) distinguish worker ants from other ants  
 (C) distinguish foreign ants from resident ants  
 (D) signal other inhabitants when foreign ants attack
35. The word "alert" in line 13 is closest in meaning to  
 (A) allow (B) transport (C) ware (D) provide
36. What is the role of pheromones in the mass migrations of ants?  
 (A) Pheromones are used to create a trail that directs the ants during migrations.  
 (B) Pheromones signal the ants that the nest has been invaded and must be abandoned.  
 (C) Pheromones control the speed at which ants move from one location to another.  
 (D) Pheromones enable scouts to identify suitable areas for establishing a new nest.
37. The word "scurrying" in line 16 is closest in meaning to  
 (A) agreeing (B) appearing (C) competing (D) rushing
38. The word "others" in line 21 refers to  
 (A) private messages (B) species (C) trails (D) signals
39. Why does the author mention "dead insects" in line 23?  
 (A) To compare the social behaviors of ants with those of other insects  
 (B) To emphasize the dangers that all insects encounter  
 (C) To argue the superiority of ants over other insects  
 (D) To indicate a behavior that is common among various kinds of ants
40. Which of the following terms is defined in the passage?  
 (A) pheromones (line 2) (B) colony integrity (lines 11-12)  
 (C) mass migrations (line 14) (D) private messages (lines 18-19)

### Questions 41-50

The Homestead Act of 1862 gave heads of families or individuals aged twenty-one or older the right to own 160 acres of public land in the western United States after five years of residence and improvement. This law was intended to provide land for small farmers and to prevent land from being bought for resale at a profit or being owned by large  
*Line* (5) landholders. An early amendment to the act even prevented husbands and wives from filing separate claims. The West, land reformers had assumed, would soon contain many 160-acre family farms.

They were doomed to disappointment. Most landless Americans were too poor to become farmers even when they could obtain land without cost. The expense of moving a  
 (10) family to the ever-receding frontier exceeded the means of many, and the cost of tools, draft animals, a wagon, a well, fencing, and of building the simplest house, might come to \$1,000---a formidable barrier. As for the industrial workers for whom the free land was supposed to provide a "safety valve," they had neither the skills nor the inclination to become farmers. Homesteaders usually came from districts not far removed from frontier  
 (15) conditions. And despite the intent of the law, speculators often managed to obtain large tracts. They hired people to stake out claims, falsely swear that they had fulfilled the conditions laid down in the law for obtaining legal title, and then deed the land over to their employers.



- Furthermore, 160 acres were not enough for raising livestock or for the kind of
- (20) commercial agriculture that was developing west of the Mississippi. The national government made a feeble attempt to make larger holdings available to homesteaders by passing the Timber Culture Act of 1873, which permitted individuals to claim an additional 160 acres if they would agree to plant a quarter of it in trees within ten years. This law proved helpful to some farmers in the largely treeless states of Kansas,
- (25) Nebraska, and the Dakotas. Nevertheless, fewer than 25 percent of the 245,000 who took up land under the Act obtained final title to the property.
41. Which aspect of the Homestead Act of 1862 does the passage mainly discuss?  
(A) How it transformed the western United States into a place of small farms  
(B) Why it was an improvement over previous attempts at land reform  
(C) Why it did not achieve its aim to provide land for small farmers  
(D) How it failed in the largely treeless states of Kansas, Nebraska, and the Dakotas
42. An amendment added to the Homestead Act of 1862 specified that  
(A) five years of residence was required for landownership  
(B) husbands and wives could not file separate claims  
(C) the price of 160 acres of land was \$1,000  
(D) land could not be resold for a profit
43. The word "formidable" in line 12 is closest in meaning to  
(A) obvious                      (B) predictable                      (C) difficult                      (D) manageable
44. It can be inferred that the "safety valve" in line 13 refers to  
(A) a new kind of machinery                      (B) an alternative for urban workers  
(C) an area in a factory                      (D) a procedure designed to protect workers
45. The word "intent" in line 15 is closest in meaning to  
(A) purpose                      (B) power                      (C) effect                      (D) invention
46. According to the passage, why did the government pass the Timber Culture Act of 1873?  
(A) To make larger tracts of land available to small farmers  
(B) To settle Kansas, Nebraska, and the Dakotas  
(C) To encourage land speculation west of the Mississippi  
(D) To increase the variety of trees growing in the western states
47. The word "they" in line 23 refers to  
(A) larger holdings                      (B) individuals                      (C) 160 acres                      (D) trees
48. According to the passage, how many of the farmers who settled land under the Timber Culture Act of 1873 received final title to the property?  
(A) Fewer than 25%                      (B) More than 160  
(C) 10% per year                      (D) 245,000
49. The passage mentions all of the following as reasons the Homestead Act of 1862 did not achieve its aims EXCEPT:  
(A) Most landless Americans could not afford the necessary tools and provisions.  
(B) Industrial workers lacked the necessary farming skills.  
(C) The farms were too large for single families to operate successfully.  
(D) Homesteaders usually came from areas relatively close to the frontier.
50. Which of the following can be inferred from the passage about the Timber Culture Act of 1873?  
(A) It especially helped farmers with large holdings of land.  
(B) It was most important to farmers living in states that had plenty of trees.

- (C) The majority of farmers did not benefit significantly from it.
- (D) The majority of farmers did not need the extra 160 acres it provided.

# PRACTICE TEST 07

## August 2002

### Question 1-9

Often enough the craft worker's place of employment in ancient Greece was set in rural isolation. Potter, for instance, found it convenient to locate their workshops near their source of clay, regardless of its relation to the center of settlement, At Corinth and Athens, however, two of the best-known potters' quarters were situated on the cities' outskirts, and potters and makers of terra-cotta figurines were also established well within the city of Athens itself. The techniques of pottery manufacture had evolved well before the Greek period, but marked stylistic developments occurred in shape and in decoration, for example, in the interplay of black and other glazes with the red surface of the fired pot. Athenian black-figure and red-figure decoration, which emphasized human figures rather than animal images, was adopted between 630 and 530 B.C.; its distinctive color and luster were the result of the skillful adjustments of the kiln's temperature during an extended three-stage period of firing the clayware. Whether it was the potters or the vase-painters who initiated changes in firing is unclear; the functions of making and decorating were usually divided between them, but neither group can have been so specialized the they did not share in the concerns of the other.

The broad utility of terra-cotta was such that workers in clay could generally afford to confine themselves to either decorated ware and housewares like cooking pots and storage jars or building materials like roof tiles and drainpipes. Some sixth-and fifth-century B.C. Athenian pottery establishments are known to have concentrated on a limited range of fine ware, but a rural pottery establishment on the island of Thasos produced many types of pottery and roof tiles too, presumably to meet local demand. Molds were used to create particular effects for some products, such as relief-decorated vessels and figurines; for other products such as roof tiles, which were needed in some quantity, they were used to facilitate mass production. There were also a number of poor-quality figurines and painted pots produced in quantity by easy, inexpensive means- as numerous featureless statuettes and unattractive cases testify.

1. The passage mainly discusses ancient Greek pottery and its  
(A) production techniques (B) similarity to other crafts  
(C) unusual materials (D) resemblance to earlier pottery
2. The phrase "regardless of" in line 3 is closest in meaning to  
(A) as a result of (B) no matter what (C) proud of (D) according to
3. It can be inferred from the passage that most pottery establishments in ancient Greece were situated  
(A) in city centers (B) on the outskirts of cities  
(C) where clay could be found (D) near other potters' workshops
4. The word "marked" in line 7 is closest in meaning to  
(A) original (B) attractive (C) noticeable (D) patterned
5. The word "confine" in line 17 is closest in meaning to  
(A) adapt (B) train (C) restrict (D) organize
6. It can be inferred from the passage that terra-cotta had which of the following advantages"  
(A) It did not break during the firing process.  
(B) It was less expensive than other available materials.  
(C) Its surface had a lasting shine.

- (D) It could be used for many purposes.
7. The word “presumably” in line 21 is closest in meaning to  
 (A) frequently (B) practically (C) preferably (D) probably
8. The word “they” in line 23 refers to  
 (A) molds (B) particular effects  
 (C) products (D) vessels and figurines
9. According to the passage, all of the following are true of ancient Greek potters and vase painters EXCEPT:  
 (A) Their functions were so specialized that they lacked common concerns.  
 (B) They sometimes produced inferior ware.  
 (C) They produced pieces that had unusual color and shine.  
 (D) They decorated many of their works with human images.

### Question 10-19

Geographers say that what defines a place are four properties: soil, climate, altitude, and aspect, or attitude to the Sun. Florida’s ancient scrub demonstrates this principle. Its soil is pure silica, so barren it supports only lichens as ground cover. (It does, however, sustain a sand-swimming lizard that cannot live where there is moisture or plant matter (5) the soil.) Its climate, despite more than 50 inches of annual rainfall, is blistering desert plant life it can sustain is only the xerophytic, the quintessentially dry. Its altitude is a mere couple of hundred feet, but it is high ground on a peninsula elsewhere close to sea level, and its drainage is so critical that a difference of inches in elevation can bring major changes in its plant communities. Its aspect is flat, direct, brutal – and subtropical. (10) Florida’s surrounding lushness cannot impinge on its desert scrubbiness.

This does not sound like an attractive place. It does not look much like one either; Shrubby little oaks, clumps of scraggly bushes, prickly pear, thorns, and tangles. “It appear Said one early naturalist,” to desire to display the result of the misery through which it has Passed and is passing.” By our narrow standards, scrub is not beautiful; neither does it meet (15) our selfish utilitarian needs. Even the name is an epithet, a synonym for the stunted, the scruffy, the insignificant, what is beautiful about such a place?

The most important remaining patches of scrub lie along the Lake Wales Ridge, a chain of paleoislands running for a hundred miles down the center of Florida, in most places less than ten miles wide. It is relict seashore, tossed up millions of years ago when ocean levels (20) were higher and the rest of the peninsula was submerged. That ancient emergence is precisely what makes Lake Wales Ridge so precious: it has remained unsubmerged, its ecosystems essentially undisturbed, since the Miocene era. As a result, it has gathered to itself one of the largest collections of rare organisms in the world. Only about 75 plant species survive there, but at least 30 of these are found nowhere else on Earth.

10. What does the passage mainly discuss?  
 (A) How geographers define a place (B) The characteristics of Florida’s ancient scrub  
 (C) An early naturalist’s opinion of Florida (D) The history of the Lake Wales Ridge
11. The author mentions all of the following as factors that define a place EXCEPT  
 (A) aspect (B) altitude (C) soil (D) life-forms
12. It can be inferred from the passage that soil composed of silica  
 (A) does not hold moisture (B) is found only in Florida  
 (C) nourishes many kinds of ground cover (D) provides food for many kinds of lizards

13. The word "sustain" in line 6 is closest in meaning to  
(A) select (B) strain (C) support (D) store
14. The author mentions the prickly pear (line 12) as an example of  
(A) valuable fruit-bearing plants of the scrub area  
(B) unattractive plant life of the scrub area  
(C) a plant discovered by an early naturalist  
(D) plant life that is extremely rare
15. The author suggests that human standards of beauty are  
(A) tolerant (B) idealistic (C) defensible (D) limited
16. The word "insignificant" in line 16 is closest in meaning to  
(A) unimportant (B) undisturbed (C) immature (D) inappropriate
17. According to the passage, why is the Lake Wales Ridge valuable?  
(A) It was originally submerged in the ocean.  
(B) It is less than ten miles wide.  
(C) It is located near the seashore.  
(D) It has ecosystems that have long remained unchanged
18. The word "it" in line 22 refer to  
(A) Florida (B) the peninsula  
(C) the Lake Wales Ridge (D) the Miocene era
19. The passage probably continues with a discussion of  
(A) ancient scrub found in other areas of the country  
(B) geographers who study Florida's scrub  
(C) the climate of the Lake Wales Ridge  
(D) the unique plants found on the Lake Wales Ridge

### Question 20-30

It is estimated that over 99 percent of all species that ever existed have become extinct. What causes extinction? When a species is no longer adapted to a changed environment, it may perish. The exact causes of a species' death vary from situation to situation. Rapid ecological change may render an environment hostile to a species.

(5) For example, temperatures may change and a species may not be able to adapt. Food Resources may be affected by environmental changes, which will then cause problems for a species requiring these resources. Other species may become better adapted to an environment, resulting in competition and, ultimately, in the death of a species.

The fossil record reveals that extinction has occurred throughout the history of Earth.

(10) Recent analyses have also revealed that on some occasions many species became extinct at the same time – a mass extinction. One of the best-known examples of mass extinction occurred 65 million years ago with the demise of dinosaurs and many other forms of life. Perhaps the largest mass extinction was the one that occurred 225 million years ago, when approximately 95 percent of all species died. Mass extinctions can be caused by a relatively rapid change in the environment and can be worsened by the close interrelationship of many species. If, for example, something were to happen to destroy much of the plankton in the oceans, then the oxygen content of Earth would drop,

affection even organisms not living in the oceans. Such a change would probably lead to a mass extinction.

- (20) One interesting, and controversial, finding is that extinctions during the past 250 Million years have tended to be more intense every 26 million years. This periodic extinction might be due to intersection of the Earth's orbit with a cloud of comets, but this theory is purely speculative. Some researchers have also speculated that extinction may often be random. That is, certain species may be eliminated and others may survive
- (25) for no particular reason. A species' survival may have nothing to do with its ability or inability to adapt. If so, some of evolutionary history may reflect a sequence of essentially random events.
20. The word "it" in line 3 refers to  
 (A) environment (B) species (C) extinction (D) 99 percent
21. The word "ultimately" in line 8 is closest in meaning to  
 (A) exceptionally (B) dramatically (C) eventually (D) unfortunately
22. What does the author say in paragraph 1 regarding most species in Earth's history  
 (A) They have remained basically unchanged from their original forms.  
 (B) They have been able to adapt to ecological changes.  
 (C) They have caused rapid change in the environment.  
 (D) They are no longer in existence.
23. Which of the following is NOT mentioned in paragraph 1 as resulting from rapid ecological change?  
 (A) Temperature changes (B) Availability of food resources  
 (C) Introduction of new species (D) Competition among species
24. The word "demise" in line 12 is closest in meaning to  
 (A) change (B) recovery (C) help (D) death
25. Why is "plankton" mentioned in line 17?  
 (A) To demonstrate the interdependence of different species  
 (B) To emphasize the importance of food resources in preventing mass extinction.  
 (C) To illustrate a comparison between organisms that live on the land and those that live in the ocean  
 (D) To point out that certain species could never become extinct.
26. According to paragraph 2, evidence from fossils suggests that  
 (A) extinction of species has occurred from time to time throughout Earth's history.  
 (B) Extinctions on Earth have generally been massive  
 (C) there has been only one mass extinction in Earth's history.  
 (D) dinosaurs became extinct much earlier than scientists originally believed.
27. The word "finding" in line 20 is closest in meaning to  
 (A) published information (B) research method  
 (C) ongoing experiment (D) scientific discovery
28. Which of the following can be in  
 (A) Many scientists could be expected to disagree with it  
 (B) evidence to support the theory has recently been found.  
 (C) The theory is no longer seriously considered.  
 (D) Most scientists believe the theory to be accurate.
29. In paragraph 3, the author makes which of the following statements about a species' survival?  
 (A) It reflects the interrelationship of many species.  
 (B) It may depend on chance events.

- (C) It does not vary greatly from species to species
- (D) It is associated with astronomical conditions.

30. According to the passage, it is believed that the largest extinction of a species occurred
- (A) 26 million years ago
  - (B) 65 million years ago
  - (C) 225 million years ago
  - (D) 250 million years ago

**Question 31-40**

Because the low latitudes of the Earth, the areas near the equator, receive more heat than the latitudes near the poles, and because the nature of heat is to expand and move, heat is transported from the tropics to the middle and high latitudes. Some of this heat is moved by winds and some by ocean currents, and some gets stored in the atmosphere in the form of latent heat. The term “latent heat” refers to the energy that has to be used to convert liquid water to water vapor. We know that if we warm a pan of water on a stove, it will evaporate, or turn into vapor, faster than if it is allowed to sit at room temperature. We also know that if we hang wet clothes outside in the summertime they will dry faster than in winter, when temperatures are colder. The energy used in both cases to change liquid water to water vapor is supplied by heat – supplied by the stove in the first case and by the Sun in the latter case. This energy is not lost. It is stored in water vapor in the atmosphere as latent heat. Eventually, the water stored as vapor in the atmosphere will condense to liquid again, and the energy will be released to the atmosphere.

In the atmosphere, a large portion of the Sun’s incoming energy is used to evaporate water, primarily in the tropical oceans. Scientists have tried to quantify this proportion of the Sun’s energy. By analyzing temperature, water vapor, and wind data around the globe, they have estimated the quantity to be about 90 watts per square meter, or nearly 30 percent of the Sun’s energy. Once this latent heat is stored within the atmosphere, it can be transported, primarily to higher latitudes, by prevailing, large-scale winds. Or it can be transported vertically to higher levels in the atmosphere, where it forms clouds and subsequent storms, which then release the energy back to the atmosphere.

31. The passage mainly discusses how heat
- (A) is transformed and transported in the Earth’s atmosphere
  - (B) is transported by ocean currents
  - (C) can be measured and analyzed by scientists
  - (D) moves about the Earth’s equator
32. The passage mentions that the tropics differ from the Earth’s polar regions in which of the following ways?
- (A) The height of cloud formation in the atmosphere
  - (B) The amount of heat they receive from the Sun
  - (C) The strength of their large scale winds.
  - (D) The strength of their oceanic currents
33. The word “convert” line 6 is closest in meaning to
- (A) mix
  - (B) change
  - (C) adapt
  - (D) reduce
34. Why does the author mention “the stove” in line 10?
- (A) To describe the heat of the Sun
  - (B) To illustrate how water vapor is stored
  - (C) To show how energy is stored
  - (D) To give an example of a heat source
35. According to the passage, most ocean water evaporation occurs especially
- (A) around the higher latitudes
  - (B) in the tropics
  - (C) because of large-scale winds
  - (D) because of strong ocean currents

36. According to the passage, 30 percent of the Sun's incoming energy  
 (A) is stored in clouds in the lower latitudes (B) is transported by ocean currents  
 (C) never leaves the upper atmosphere (D) gets stored as latent heat
37. The word "it" in line 18 refers to  
 (A) square meter (B) the Sun's energy  
 (C) latent heat (D) the atmosphere
38. The word "primarily" in line 19 is closest in meaning to  
 (A) chiefly (B) originally (C) basically (D) clearly
39. The word "prevailing" in line 19 is closest in meaning to  
 (A) essential (B) dominant (C) circular (D) closest
40. All of the following words are defined in the passage EXCEPT  
 (A) low latitudes (line1) (B) latent heat (line 5)  
 (C) evaporate (line7) (D) atmosphere (line14)

### Question 41-50

The Moon, which has undergone a distinct and complex geological history, presents a striking appearance. The moon may be divided into two major terrains: the maria (dark lowlands) and the terrace( bright highlands). The contrast in the reflectivity (the capability  
*Line* of reflecting light ) of these two terrains suggested to many early observers that the two  
 (5) terrains might have different compositions, and this supposition was confirmed by missions to the Moon such as Surveyor and Apollo. One of the most obvious differences between the terrains is the smoothness of the maria in contrast to the roughness of the highlands. This roughness is mostly caused by the abundance of craters; the highlands are completely covered by large craters( greater than 40-50 km in diameter), while the craters  
 (10) of the maria tend to be much smaller. It is now known that the vast majority of the Moon's craters were formed by the impact of solid bodies with the lunar surface.

Most of the near side of the Moon was thoroughly mapped and studied from telescopic pictures years before the age of space exploration. Earth-based telescopes can resolve objects as small as a few hundred meters on the lunar surface. Close observation of  
 (15) craters, combined with the way the Moon diffusely reflects sunlight, led to the understanding that the Moon is covered by a surface layer, or regolith, that overlies the solid rock of the Moon. Telescopic images permitted the cataloging of a bewildering array of land forms. Craters were studied for clues to their origin; the large circular maria were  
 (20) seen. Strange, sinuous features were observed in the maria. Although various land forms were catalogued, the majority of astronomers' attention was fixed on craters and their origins.

Astronomers have known for a fairly long time that the shape of craters changes as they increase in size. Small craters with diameters of less than 10-15 km have relatively  
 (25) simple shapes. They have rim crests that are elevated above the surrounding terrain, smooth, bowl-shaped interiors, and depths that are about one-fifth to one-sixth their diameters. The complexity of shape increases for larger craters.

41. What does the passage mainly discuss?  
 (A) What astronomers learned from the Surveyor and Apollo space missions  
 (B) Characteristics of the major terrains of the Moon  
 (C) The origin of the Moon's craters  
 (D) Techniques used to catalogue the Moon's land forms



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42. The word "undergone" in line1 is closest in meaning to  
(A) altered (B) substituted (C) experienced (D) preserved
43. According to the passage, the maria differ from the terrace mainly in terms of  
(A) age (B) manner of creation  
(C) size (D) composition
44. The passage supports which of the following statements about the Surveyor and Apollo missions?  
(A) They confirmed earlier theories about the Moon's surface.  
(B) They revealed that previous ideas about the Moon's craters were incorrect.  
(C) They were unable to provide detailed information about the Moon's surface.  
(D) They were unable to identify how the Moon's craters were made.
45. The word "vast" in line 10 is closest in meaning to  
(A) special (B) known (C) varied (D) great
46. All of the following are true of the maria EXCEPT:  
(A) They have small craters. (B) They have been analyzed by astronomers.  
(C) They have a rough texture. (D) They tend to be darker than the terrace.
47. All of the following terms are defined in the passage EXCEPT  
(A) Moon (line1) (B) reflectivity (line3)  
(C) regolith (line16) (D) rays (line19)
48. The author mentions "wispy marks" in line 19 as an example of  
(A) an aspect of the lunar surface discovered through lunar missions  
(B) a characteristic of large craters  
(C) a discovery made through the use of Earth-based telescopes  
(D) features that astronomers observed to be common to Earth and the Moon
49. According to the passage, lunar researchers have focused mostly on  
(A) the possibility of finding water on the Moon  
(B) the lunar regolith  
(C) cataloging various land formations  
(D) craters and their origins
50. The passage probably continues with a discussion of  
(A) the reasons craters are difficult to study  
(B) the different shapes small craters can have  
(C) some features of large craters  
(D) some difference in the ways small and large craters were formed

# PRACTICE TEST 08

## September 2002

### Question 1-10

Hunting is at best a precarious way of procuring food, even when the diet is supplemented with seeds and fruits. Not long after the last Ice Age, around 7,000 B.C. (during the Neolithic period), some hunters and gatherers began to rely chiefly on agriculture for their sustenance. Others  
*Line* continued the old pastoral and nomadic ways. Indeed, agriculture itself evolved over the course of  
(5) time, and Neolithic peoples had long known how to grow crops. The real transformation of human life occurred when huge numbers of people began to rely primarily and permanently on the grain they grew and the animals they domesticated.

Agriculture made possible a more stable and secure life. With it Neolithic peoples flourished, fashioning an energetic, creative era. They were responsible for many fundamental inventions and  
(10) innovations that the modern world takes for granted. First, obviously, is systematic agriculture--- that is, the reliance of Neolithic peoples on agriculture as their primary, not merely subsidiary, source of food.

Thus they developed the primary economic activity of the entire ancient world and the basis of all modern life. With the settled routine of Neolithic farmers came the evolution of towns and  
(15) eventually cities. Neolithic farmers usually raised more food than they could consume, and their surpluses permitted larger, healthier populations. Population growth in turn created an even greater reliance on settled farming, as only systematic agriculture could sustain the increased numbers of people. Since surpluses of food could also be bartered for other commodities, the Neolithic era witnessed the beginnings of large-scale exchange of goods. In time the increasing  
(20) complexity of Neolithic societies led to the development of writing, prompted by the need to keep records and later by the urge to chronicle experiences, learning, and beliefs.

The transition to settled life also had a profound impact on the family. The shared needs and pressures that encourage extended-family ties are less prominent in settled than in nomadic societies. Bonds to the extended family weakened. In towns and cities, the nuclear family was more dependent on its immediate neighbors than on kinfolk.

1. What does the passage mainly discuss?  
(A) Why many human societies are dependent on agriculture  
(B) the changes agriculture brought to human life  
(C) How Neolithic peoples discovered agriculture  
(D) Why the first agricultural societies failed
2. The word "precarious" in line 1 is closest in meaning to  
(A) uncertain                      (B) humble                      (C) worthy                      (D) unusual
3. The author mentions "seeds and fruits" in line 2 as examples of  
(A) the first crops cultivated by early agricultural societies  
(B) foods eaten by hunters and gatherers as a secondary food source  
(C) types of food that hunters and gatherers lacked in their diets  
(D) the most common foods cultivated by early agricultural societies
4. The word "settled" in line 14 is closest in meaning to  
(A) advanced                      (B) original                      (C) involved                      (D) stable
5. According to the passage, agricultural societies produced larger human populations because agriculture  
(A) created more varieties of food                      (B) created food surpluses  
(C) resulted in increases in leisure time                      (D) encouraged bartering

6. According to the passage, all of the following led to the development of writing EXCEPT the  
(A) need to keep records (B) desire to write down beliefs  
(C) extraction of ink from plants (D) growth of social complexity
7. The word "chronicle" in line 21 is closest in meaning to  
(A) repeat (B) exchange (C) understand (D) describe
8. According to the passage, how did the shift to agricultural societies impact people's family relationships?  
(A) the extended family became less important.  
(B) Immediate neighbors often became family members.  
(C) the nuclear family became self-sufficient.  
(D) Family members began to work together to raise food.
9. The author mentions all of the following as results of the shift to agricultural societies EXCEPT  
(A) an increase in invention and innovation (B) emergence of towns and cities  
(C) development of a system of trade (D) a decrease in warfare
10. Which of the following is true about the human diet prior to the Neolithic period?  
(A) It consisted mainly of agricultural products  
(B) It varied according to family size.  
(C) It was based on hunting and gathering.  
(D) It was transformed when large numbers of people no longer depended on the grain they grew themselves.

### Question 11-21

In the North American colonies, red ware, a simple pottery fired at low temperatures, and stone ware, a strong, impervious grey pottery fired at high temperatures, were produced from two different native clays. These kind of pottery were produced to supplement imported European pottery. When the American Revolution (1775-1783) interrupted the flow of the superior European ware, there was incentive for American potters to replace the imports with comparable domestic goods. Stoneware, which had been simple, utilitarian kitchenware, grew increasingly ornate throughout the nineteenth century, and in addition to the earlier scratched and drawn designs, three-dimensional molded relief decoration became popular. Representational motifs largely replaced the earlier abstract decorations. Birds and flowers were particularly evident, but other subjects---lions, flags, and clipper ships--- are found. Some figurines, mainly of dogs and lions, were made in this medium. Sometimes a name, usually that of the potter, was die-stamped onto a piece.

As more and more large kilns were built to create the high-fired stoneware, experiments revealed that the same clay used to produce low-fired red ware could produce a stronger, paler pottery if fired at a hotter temperature. The result was yellow ware, used largely for serviceable items; but a further development was Rockingham ware--- one of the most important American ceramics of the nineteenth century. (The name of the ware was probably derived from its resemblance to English brown-glazed earthenware made in South Yorkshire.) It was created by adding a brown glaze to the fired clay, usually giving the finished product a mottled appearance. Various methods of spattering or sponging the glaze onto the ware account for the extremely wide variations in color and add to the interest of collecting Rockingham. An advanced form of Rockingham was flint enamel, created by dusting metallic powders onto the Rockingham glaze to produce brilliant varicolored streaks.

Articles for nearly every household activity and ornament could be bought in Rockingham ware: dishes and bowls, of course; also bedpans, foot warmers, cuspidors, lamp bases, doorknobs, molds, picture frames, even curtain tiebacks. All these items are highly collectible today and are

eagerly sought. A few Rockingham specialties command particular affection among collectors and correspondingly high prices.

11. Why did the potters discussed in the passage change the kind of pottery they made?  
 (A) They discovered a new kind of clay.  
 (B) They were compensation for the loss of an overseas supplier.  
 (C) They studied new techniques in Europe.  
 (D) The pottery they had been producing was not very strong.
12. The word "ornate" in line 7 is closest in meaning to  
 (A) elaborate (B) puzzling (C) durable (D) common
13. The passage suggests that the earliest stoneware  
 (A) was decorated with simple, abstract designs  
 (B) used three-dimensional decorations  
 (C) was valued for its fancy decorations  
 (D) had no decoration
14. How did yellow ware achieve its distinctive color?  
 (A) By sponging on a glaze (B) By dusting on metallic powders  
 (C) By brown-glazing (D) By firing at a high temperature
15. The phrase "derived from" in line 19 is closest in meaning to  
 (A) ruined by (B) warned against (C) based on (D) sold by
16. The word "It" in line 20 refers to  
 (A) red ware (B) yellow ware  
 (C) Rockingham ware (D) English brown-glazed earthenware
17. The word "Various" in line 21 is closest in meaning to  
 (A) complicated (B) accepted (C) careful (D) different
18. The phrase "account for" in line 22 is closest in meaning to  
 (A) explain (B) restrict (C) finance (D) supplement
19. What was special about flint enamel?  
 (A) Its even metallic shine (B) Its mottled appearance  
 (C) Its spattered effect (D) Its varicolored streaks
20. Which of the following kinds of Rockingham ware were probably produced in the greatest quantity?  
 (A) Picture frames (B) Dishes and bowls (C) Curtain tiebacks (D) Doorknobs
21. The passage would most probably continue with a discussion of  
 (A) what bedpans, foot warmers, and cuspidors were used for  
 (B) well-known, modern-day potters who make Rockingham ware  
 (C) examples of Rockingham ware that collectors especially want  
 (D) pieces of Rockingham ware that are inexpensive in today's market

### Question 22-31

Archaeological discoveries have led some scholars to believe that the first Mesopotamian inventors of writing may have been a people the later Babylonians called Subarians. According to tradition, they came from the north and moved into Uruk in the south. By about 3100B.C, They  
*Line* were apparently subjugated in southern Mesopotamia by the Sumerians, whose name became  
 (5) synonymous with the region immediately north of the Persian Gulf, in the fertile lower valleys of the Tigris and Euphrates. Here the Sumerians were already well established by the year 3000B.C.

They had invented bronze, an alloy that could be cast in molds, out of which they made tools and weapons. They lived in cities, and they had begun to acquire and use capital. Perhaps most important, the Sumerians adapted writing (probably from the Subarians) into a flexible tool of communication.

Archaeologists have known about the Sumerians for over 150 years. Archaeologists working at Nineveh in northern Mesopotamia in the mid-nineteenth century found many inscribed clay tablets. Some they could decipher because the language was a Semitic one (Akkadian), on which scholars had already been working for a generation. But other tablets were inscribed in another language that was not Semitic and previously unknown. Because these inscriptions made reference to the king of Sumer and Akkad, a scholar suggested that the new language be called Sumerian. But it was not until the 1890's that archaeologists excavating in city-states well to the south of Nineveh found many thousands of tablets inscribed in Sumerian only. Because the Akkadians thought of Sumerian as a classical language (as ancient Greek and Latin are considered today), they taught it to educated persons and they inscribed vocabulary, translation exercises, and other study aids on tablets. Working from known Akkadian to previously unknown Sumerian, scholars since the 1890's have learned how to read the Sumerian language moderately well. Vast quantities of tablets in Sumerian have been unearthed during the intervening years from numerous sites.

22. According to the passage, the inventors of written language in Mesopotamia were probably the  
(A) Babylonians                      (B) Subarians                      (C) Akkadians                      (D) Sumerians
23. The word "subjugated" in line 4 is closest in meaning to  
(A) distinguished                      (B) segregated                      (C) concentrated                      (D) conquered
24. The phrase "synonymous with" in line 5 is closest in meaning to  
(A) equivalent to                      (B) important for                      (C) respected in                      (D) familiar with
25. According to the passage, by the year 3000 B.C. the Sumerians had already done all of the following EXCEPT:  
(A) They had abandoned the area north of the Persian Gulf.  
(B) They had established themselves in cities.  
(C) They had started to communicate through  
(D) They had created bronze tools and weapons.
26. The word "some" in line 14 refers to  
(A) Archaeologists                      (B) Sumerians                      (C) years                      (D) clay tablets
27. Which of the following can be inferred from the passage concerning the Sumerians?  
(A) They were descendants of the Persians.  
(B) They were the first people to cultivate the valley of the Tigris.  
(C) They were accomplished musicians.  
(D) They had the beginnings of an economy.
28. According to the passage, when did archaeologists begin to be able to understand tablets inscribed in Sumerian?  
(A) In the early nineteenth century                      (B) More than 150 years ago  
(C) After the 1890's                      (D) In the mid-eighteenth century
29. According to the passage, in what way did the Sumerian language resemble ancient Greek and Latin?  
(A) It was invented in Mesopotamia.  
(B) It became well established around 3000 B.C.  
(C) It became a classical language.  
(D) It was used exclusively for business transactions.
30. The word "excavating" in line 19 is closest in meaning to  
(A) Living                      (B) digging                      (C) assembling                      (D) building

31. According to the passage, how did archaeologists learn to read the Sumerian language?
- (A) By translating the work of the Sumerians
  - (B) By using their knowledge of spoken Semitic languages
  - (C) By comparing Sumerian to other classical languages
  - (D) By using their knowledge of Akkadian

### Question 32-40

Generally, in order to be preserved in the fossil record, organisms must possess hard body parts such as shells or bones. Soft, fleshy structures are quickly destroyed by predators or decayed by bacteria. Even hard parts left on the surface for a long length of time will be destroyed. Therefore, organisms must be buried rapidly to escape destruction by the elements and to be protected from agents of weathering and erosion. Marine organisms thus are better candidates for fossilization than those living on the land because the ocean is typically the site of sedimentation, whereas the land is largely the site of erosion.

The beds of ancient lakes were also excellent sites for rapid burial of skeletal remains of freshwater organisms and skeletons of other animals, including those of early humans. Ancient swamps were particularly plentiful with prolific growths of vegetation, which fossilized in abundance. Many animals became trapped in bogs overgrown by vegetation. The environment of the swamps kept bacterial decay to a minimum, which greatly aided in the preservation of plants and animals. The rapidly accumulating sediments in flood plains, deltas, and stream channels buried freshwater organisms, along with other plants and animals that happened to fall into the water.

Only a small fraction of all the organisms that have ever lived are preserved as fossils. Normally, the remains of a plant or animal are completely destroyed through predation and decay. Although it seems that fossilization is common for some organisms, for others it is almost impossible. For the most part, the remains of organisms are recycled in the earth, which is fortunate because otherwise soil and water would soon become depleted of essential nutrients. Also, most of the fossils exposed on Earth's surface are destroyed by weathering processes. This makes for an incomplete fossil record with poor or no representation of certain species. The best fossils are those composed of unaltered remains. Generally, it is the inorganic hard parts, composed mostly of calcium carbonate, that form the vast majority of unaltered fossils. Calcite and aragonite also contributed to a substantial number of fossils of certain organisms.

32. According to the passage, an organism without hard body parts
- (A) is not likely to appear in the fossil record
  - (B) is not heavy enough to sink below the surface
  - (C) is not attractive to predators
  - (D) takes a long time to decay
33. The word "agents" in line 5 is closest in meaning to
- (A) dangers
  - (B) examples
  - (C) areas
  - (D) causes
34. Why are marine organisms good candidates for fossilization?
- (A) they have more fleshy structures than land organisms.
  - (B) It is likely that they will be buried rapidly

- (C) The water environment speeds the decay caused by bacteria.
- (D) It takes longer for them to be preserved.

- 35.** The fact that the "land is largely the site of erosion" (line 7) is significant because
- (A) erosion is less destructive than sedimentation
  - (B) fossils are most common in areas subject to erosion
  - (C) erosion contributes to the destruction of skeletal remains
  - (D) few organisms live in areas that experience extensive erosion
- 36.** According to the passage, why were the remains of organisms trapped in swamps better preserved for the fossil record than those that were not?
- (A) The swamp environment reduced the amount of bacterial decay.
  - (B) Swamp waters contained higher amounts of materials such as calcium carbonate.
  - (C) There were fewer sediments in swamps than in other bodies of water.
  - (D) Swamp vegetation accelerated the decomposition of organisms.
- 37.** The word "aided" in line 12 is closest in meaning to
- (A) reversed
  - (B) helped
  - (C) reformed
  - (D) counted
- 38.** It can be inferred that flood plains, deltas, and stream channels (lines 13-14) are similar in which of the following ways?
- (A) Animals rather than plants have been preserved at such locations.
  - (B) Such locations are likely to be rich sources of fossils.
  - (C) Fossilized human remains are only rarely found in such locations.
  - (D) Rapid sedimentation in such locations makes it difficult to locate fossils.
- 39.** What is the author's main point in paragraph 3?
- (A) Weathering makes it impossible to identify many fossils.
  - (B) Many fossils have been buried forever under the soil.
  - (C) Fossils provide a limited sample of ancient organisms.
  - (D) It is easier to find the remains of plants than animals.
- 40.** Why does the author mention "aragonite" in line 26
- (A) To explain why fossils are rare
  - (B) To compare aragonite fossils and calcite fossils
  - (C) To argue that certain fossils are more informative than others
  - (D) To illustrate the kinds of inorganic hard parts that can form fossils

**Question 41-50**

Naturalists and casual observers alike have been struck by the special relationship between squirrels and acorns (the seeds of oak trees). Ecologists, though, cannot observe these energetic mammals scurrying up and down oak trees and eating and burying acorns without wondering about their complex relationship with trees. Are squirrels dispersers  
*Line* (5) and planters of oak forests or pesky seed predators? The answer is not simple. Squirrels may devour many acorns, but by storing and failing to recover up to 74 percent of them (as they do when seeds are abundant), these arboreal rodents can also aid regeneration and dispersal of the oaks.

Their destructive powers are well documented. According to one report, squirrels  
*(10)* destroyed tens of thousands of fallen acorns from an oak stand on the University of

Indiana campus. A professor there estimated that each of the large white oaks had produced between two and eight thousand acorns, but within weeks of seed maturity, hardly an intact acorn could be found among the fallen leaves.

- (15) Deer, turkey, wild pigs, and bears also feed heavily on acorns, but do not store them, and are therefore of no benefit to the trees. Flying squirrels, chipmunks, and mice are also unlikely to promote tree dispersal – whose behavior of caching (hiding) acorns below the leaf litter often promotes successful germination of acorns – and perhaps blue jays, important long-distance dispersers, seem to help oaks spread and reproduce.

- (20) Among squirrels, though, there is a particularly puzzling behavior pattern. Squirrels pry off the caps of acorns, bite through the shells to get at the nutritious inner kernels, and then discard them half-eaten. The ground under towering oaks is often littered with thousands of half-eaten acorns, each one only bitten from the top. Why would any animal waste so much time and energy and risk exposure to such predators as red-tail hawks only to leave a large part of each acorn uneaten? While research is not conclusive at this point, (25) one thing that is certain is that squirrels do hide some of the uneaten portions, and these acorn halves, many of which contain the seeds, may later germinate.

41. What does the passage mainly discuss?  
 (A) The ecology of oak trees  
 (B) Factors that determine the feeding habits of Squirrels  
 (C) Various species of animals that promote the dispersal of tree seeds  
 (D) The relationship between squirrels and oak trees
42. The word "they" in line 7 refers to  
 (A) oak forests (B) acorns (C) squirrels (D) predators
43. According to the passage, what do squirrels do when large quantities of acorns are available?  
 (A) They do not store acorns.  
 (B) They eat more than 74 percent of available acorns.  
 (C) They do not retrieve all the acorns that they have stored.  
 (D) They hide acorns in tree cavities.
44. The word "estimated" in line 11 is closest in meaning to  
 (A) commented (B) judged (C) observed (D) discovered
45. Why does the author mention "the University of Indiana campus" in line 10-11  
 (A) To provide evidence that intact acorns are hard to find under oak trees  
 (B) To indicate a place where squirrels can aid seed dispersal of oaks  
 (C) To argue in favor of additional studies concerning the destructive force of squirrels  
 (D) To support the claim that squirrels can do great damage to oak stands
46. It can be inferred from paragraph 3 that chipmunks do not aid in the dispersal of oak trees because  
 (A) they store their acorns where they cannot germinate  
 (B) they consume most of their stored acorns  
 (C) their stored acorns are located and consumed by other species  
 (D) they cannot travel the long distance required for dispersal
47. According to the passage, which of the following do squirrels and blue jays have in common?  
 (A) They travel long distances to obtain acorns. (B) They promote the reproduction of oak trees.  
 (C) They bury acorns under fallen leaves. (D) They store large quantities of acorns.
48. The phrase "pry off" in line 21 is closest in meaning to  
 (A) swallow (B) remove (C) squeeze (D) locate



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49. The word "littered" in line 22 is closest in meaning to  
(A) covered                      (B) displayed                      (C) fertilized                      (D) planted
50. According to the passage, scientists cannot explain which of the following aspects of squirrel behavior?  
(A) Where squirrels store their acorn caches  
(B) Why squirrels prefer acorns over other seeds  
(C) Why squirrels eat only a portion of each acorn they retrieve  
(D) Why squirrels prefer acorns from a particular species of oak trees

# PRACTICE TEST 09

## October 2002

### Question 1-9

The first birds appeared during late Jurassic times. These birds are known from four very good skeletons, two incomplete skeletons, and an isolated feather, all from the Solnhofen limestone of Bavaria, Germany. This fine-grained rock, which is extensively quarried for lithographic stone, was evidently deposited in a shallow coral lagoon of a tropical sea, and flying vertebrates occasionally fell into the water and were buried by the fine limy mud, to be preserved with remarkable detail. In this way, the late Jurassic bird skeletons, which have been named Archaeopteryx, were fossilized. And not only were the bones preserved in these skeletons, but so also were imprints of the feathers. If the indications of feathers had not been preserved in association with Archaeopteryx, it is likely that these fossils would have been classified among the dinosaurs, for they show numerous theropod characteristics. Archaeopteryx were animals about the size of a crow, with an archeosaurian type of skull, a long neck, a compact body balanced on a pair of strong hind limbs, and a long tail. The forelimbs were enlarged and obviously functioned as wings.

Modern birds, who are the descendants of these early birds, are highly organized animals, with a constant body temperature and a very high rate of metabolism. In addition, they are remarkable for having evolved extraordinarily complex behavior patterns such as those of nesting and song, and the habit among many species of making long migrations from one continent to another and back each year.

Most birds also have very strong legs, which allows them to run or walk on the ground as well as to fly in the air. Indeed, some of the waterbirds, such as ducks and geese, have the distinction of being able to move around proficiently in the water, on land, and in the air, a range in natural locomotor ability that has never been attained by any other vertebrate.

1. According to the author, all of the following evidence relating to the first birds was found EXCEPT  
(A) nesting materials  
(B) four skeletons in good condition  
(C) two fragmented skeletons  
(D) a single feather
2. The word "preserved" in line 8 is closest in meaning to  
(A) confused with others  
(B) gradually weakened  
(C) protected from destruction  
(D) lost permanently
3. It can be inferred from the passage that the Archaeopteryx were classified as birds on the basis of  
(A) imprints of bones  
(B) imprints of feathers  
(C) the neck structure  
(D) skeletons
4. The word "they" in line 11 refers to  
(A) indications  
(B) fossils  
(C) dinosaurs  
(D) characteristics
5. Why does the author mention "a crow" in line 12?  
(A) to indicate the size of Archaeopteryx  
(B) To specify the age of the Archaeopteryx fossils  
(C) To explain the evolutionary history of Archaeopteryx  
(D) To demonstrate the superiority of the theropod to Archaeopteryx

6. It can be inferred from the passage that theropods were  
(A) dinosaurs                      (B) birds                      (C) Archaeopteryx                      (D) crows
7. The word "constant" in line 16 is closest in meaning to  
(A) comfortable                      (B) combined                      (C) consistent                      (D) complementary
8. The author mentions all of the following as examples of complex behavior patterns evolved by birds EXCEPT  
(A) migrating                      (B) nesting                      (C) singing                      (D) running
9. The word "attained" in line 24 is closest in meaning to  
(A) required                      (B) achieved                      (C) observed                      (D) merited

### Questions 10-19

Newspaper publishers in the United States have long been enthusiastic users and distributors of weather maps. Although some newspapers that had carried the United States Weather Bureau's national weather map in 1912 dropped it once the novelty had passed, many continued to print the daily weather chart provided by their local forecasting office. In the 1930's, when interest in aviation and progress in air-mass analysis made weather patterns more newsworthy, additional newspapers started or resumed the daily weather map. In 1935, The Associated Press (AP) news service inaugurated its WirePhoto network and offered subscribing newspapers morning and afternoon weather maps redrafted by the AP's Washington, B.C., office from charts provided by the government agency. Another news service, United Press International (UPI), developed a competing photowire network and also provided timely weather maps for both morning and afternoon newspapers. After the United States government launched a series of weather satellites in 1966, both the AP and UPI offered cloud-cover photos obtained from the Weather Bureau.

In the late 1970's and early 1980's, the weather map became an essential ingredient in the redesign of the American newspaper. News publishers, threatened by increased competition from television for readers' attention, sought to package the news more conveniently and attractively. In 1982, many publishers felt threatened by the new USA Today, a national daily newspaper that used a page-wide, full-color weather map as its key design element. That the weather map in USA today did not include information about weather fronts and pressures attests to the largely symbolic role it played. Nonetheless, competing local and metropolitan newspapers responded in a variety of ways. Most substituted full-color temperature maps for the standard weather maps, while others dropped the comparatively drab satellite photos or added regional forecast maps with pictorial symbols to indicate rainy, snowy, cloudy, or clear conditions. A few newspapers, notably The New York Times, adopted a highly informative yet less visually prominent weather map that was specially designed to explain an important recent or imminent weather event. Ironically, a newspaper's richest, most instructive weather maps often are comparatively small and inconspicuous.

10. What does the passage mainly discuss?  
(A) The differences between government and newspaper weather forecasting in the United States.  
(B) The history of publishing weather maps in United States newspapers  
(C) A comparison of regional and national weather reporting in the United States.  
(D) Information that forms the basis for weather forecasting in the United States

11. The word "resumed" in line 7 is closest in meaning to  
 (A) began again (B) held back  
 (C) thought over (D) referred to
12. According to the passage, one important reason why newspapers printed daily weather maps during the first half of the twentieth century was  
 (A) the progress in printing technology  
 (B) a growing interest in air transportation  
 (C) a change in atmospheric conditions  
 (D) the improvement of weather forecasting techniques
13. What regular service did The Associated Press and United Press International begin to offer subscribing newspapers in the 1930's?  
 (A) A new system of weather forecasting (B) An air-mass analysis  
 (C) Twice daily weather maps (D) Cloud-cover photographs
14. The phrase "attests to" in line 21 is closest in meaning to  
 (A) makes up for (B) combines with  
 (C) interferes with (D) gives evidence of
15. The word "others" in line 24 refers to  
 (A) newspapers (B) ways  
 (C) temperature maps (D) weather maps
16. The word "drab" in line 24 is closest in meaning to  
 (A) precise (B) poor (C) simple (D) dull
17. In contrast to the weather maps of USA Today, weather maps in The New York Times tended to be  
 (A) printed in foil color (B) included for symbolic reasons  
 (C) easily understood by the readers (D) filled with detailed information
18. The word "prominent" in line 27 is closest in meaning to  
 (A) complex (B) noticeable (C) appealing (D) perfect
19. The author uses the term "Ironically" in line 29 to indicate that a weather map's appearance  
 (A) is not important to newspaper publishers  
 (B) does not always indicate how much information it provides  
 (C) reflects how informative a newspaper can be  
 (D) often can improve newspaper sales

### Question 20-30

Some animal behaviorists argue that certain animals can remember past events, anticipate future ones, make plans and choices, and coordinate activities within a group. These scientists, however, are cautious about the extent to which animals can be credited with conscious processing.

Line

- (5) Explanations of animal behavior that leave out any sort of consciousness at all and ascribe actions entirely to instinct leave many questions unanswered. One example of such unexplained behavior: Honeybees communicate the sources of nectar to one another by doing a dance in a figure-eight pattern. The orientation of the dance conveys the position of the food relative to the sun's position in the sky,

- (10) and the speed of the dance tells how far the food source is from the hive. Most researchers assume that the ability to perform and encode the dance is innate and shows no special intelligence. But in one study, when experimenters kept changing the site of the food source, each time moving the food 25 percent farther from the previous site, foraging honeybees began to anticipate where the food source would appear next. When the researchers arrived at the new location, they would find the bees circling the spot, waiting for their food. No one has yet explained how bees, whose brains weigh four ten-thousandths of an ounce, could have inferred the location of the new site.

- Other behaviors that may indicate some cognition include tool use. Many animals, like the otter who uses a stone to crack mussel shells, are capable of using objects in the natural environment as rudimentary tools. One researcher has found that mother chimpanzees occasionally show their young how to use tools to open hard nuts. In one study, chimpanzees compared two pairs of food wells containing chocolate chips. One pair might contain, say, five chips and three chips, the other our chips and three chips. Allowed to choose which pair they wanted, the chimpanzees almost always chose the one with the higher total, showing some sort of summing ability. Other chimpanzees have learned to use numerals to label quantities of items and do simple sums.

- 20.** What does the passage mainly discuss?  
(A) The role of instinct in animal behavior  
(B) Observations that suggest consciousness in animal behavior  
(C) The use of food in studies of animal behavior  
(D) Differences between the behavior of animals in their natural environments and in laboratory experiments.
- 21.** Which of the following is NOT discussed as an ability animals are thought to have?  
(A) Selecting among choices  
(B) Anticipating events to come  
(C) Remembering past experiences  
(D) Communicating emotions
- 22.** What is the purpose of the honeybee dance?  
(A) To determine the quantity of food at a site  
(B) To communicate the location of food  
(C) To increase the speed of travel to food sources  
(D) To identify the type of nectar that is available
- 23.** The word "yet" in line 16 is closest in meaning to  
(A) however  
(B) since  
(C) generally  
(D) so far
- 24.** What did researchers discover in the study of honeybees discussed in paragraph 2?  
(A) Bees are able to travel at greater speeds than scientists thought.  
(B) The bees could travel 25% farther than scientists expected.  
(C) The bees were able to determine in advance where scientists would place their food.  
(D) Changing the location of food caused bees to decrease their dance activity.
- 25.** It can be inferred from the passage that brain size is assumed to  
(A) be an indicator of cognitive ability  
(B) vary among individuals within a species  
(C) be related to food consumption  
(D) correspond to levels of activity
- 26.** Why are otters and mussel shells included in the discussion in paragraph 3?  
(A) To provide an example of tool use among animals  
(B) To prove that certain species demonstrate greater ability in tool use than other species

27. The word "rudimentary" in line 21 is closest in meaning to  
 (A) superior (B) original (C) basic (D) technical
28. It can be inferred from the statement about mother chimpanzees and their young (lines 21-23) that young chimpanzees have difficulty  
 (A) communicating with their mothers (B) adding quantities  
 (C) making choices (D) opening hard nuts
29. The phrase "the one" in line 26 refers to the  
 (A) study (B) pair (C) chimpanzee (D) ability
30. Scientists concluded from the experiment with chimpanzees and chocolate chips that chimpanzees  
 (A) lack abilities that other primates have  
 (B) prefer to work in pairs or groups  
 (C) exhibit behavior that indicates certain mathematical abilities  
 (D) have difficulty selecting when given choices

### Questions 31-39

In eighteenth-century colonial America, flowers and fruit were typically the province of the botanical artist interested in scientific illustration rather than being the subjects of fine art. Early in the nineteenth century, however, the Peale family of Philadelphia established the still life, a picture consisting mainly of inanimate objects, as a valuable part of the artist's repertoire. The fruit paintings by James and Sarah Miriam Peale are simple arrangements of a few objects, handsomely colored, small in size, and representing little more than what they are. In contrast were the highly symbolic, complex compositions by Charles Bird King, with their biting satire and critical social commentary. Each of these strains comminuted into and well past mid-century.

John F. Francis (1808-86) was a part of the Pennsylvania still-life tradition that arose, at least in part, from the work of the Peales. Most of his still lifes date from around 1850 to 1875. Luncheon Still Life looks like one of the Peales' pieces on a larger scale, kits greater complexity resulting from the number of objects. It is also indebted to the luncheon type of still life found in seventeenth-century Dutch painting. The opened bottles of wine and the glasses of wine partially consumed suggest a number of unseen guests. The appeal of the fruit and nuts to our sense of taste is heightened by the juicy orange, which has already been sliced. The arrangement is additive, that is, made up of many different parts, not always compositionally integrated, with all objects of essentially equal importance.

About 1848, Severin Roesen came to the United States from Germany and settled in New York City, where he began to paint large, lush still lifes of flowers, fruit, or both, often measuring over four feet across. Still Life with Fruit and champagne is typical in its brilliance of color, meticulous rendering of detail, compact composition, and unabashed abundance. Rich in symbolic overtones, the beautifully painted objects carry additional meanings-----butterflies or fallen buds suggest the impermanence of life, a bird's nest with eggs means fertility, and so on. Above all, Roesen's art expresses the abundance that America symbolized to many of its citizens.

31. What does the passage mainly discuss?  
(A) The artwork of James and Sarah Miriam Peale  
(B) How Philadelphia became a center for art in the nineteenth century  
(C) Nineteenth-century still-life paintings in the United States  
(D) How botanical art inspired the first still-life paintings
32. Which of the following is mentioned as a characteristic of the still lifes of James and Sarah Miriam Peale?  
(A) Simplicity (B) Symbolism  
(C) Smooth texture (D) Social commentary
33. The word "biting" in line 8 is closest in meaning to  
(A) simple (B) sorrowful (C) frequent (D) sharp
34. The word "It" in line 14 refers to  
(A) Luncheon Still Life (B) one of the Peales' pieces  
(C) a larger scale (D) the number of objects
35. The word "heightened" in line 18 is closest in meaning to  
(A) complicated (B) directed (C) observed (D) increased
36. The word "meticulous" in line 24 is closest in meaning to  
(A) careful (B) significant (C) appropriate (D) believable
37. Which of the following terms is defined in the passage?  
(A) "repertoire" (line 5) (B) "satire" (line 9)  
(C) "additive" (line 19) (D) "rendering" (line 24)
38. All of the following are mentioned as characteristics of Roesen's still lifes EXCEPT that they  
(A) are symbolic  
(B) use simplified representations of flowers and fruit  
(C) include brilliant colors  
(D) are large in size
39. Which of the following is mentioned as the dominant theme in Roesen's painting?  
(A) Fertility (B) Freedom (C) Impermanence (D) Abundance

**Question 40-50**

Scientists have discovered that for the last 160,000 years, at least, there has been a consistent relationship between the amount of carbon dioxide in the air and the average temperature of the planet. The importance of carbon dioxide in regulating the Earth's temperature was confirmed by scientists working in eastern Antarctica. Drilling down into a glacier, they extracted a mile-long cylinder of ice from the hole. The glacier had formed as layer upon layer of snow accumulated year after year. Thus drilling into the ice was tantamount to drilling back through time.

The deepest sections of the core are composed of water that fell as snow 160,000 years ago. Scientists in Grenoble, France, fractured portions of the core and measured the composition of ancient air released from bubbles in the ice. Instruments were used to measure the ratio of certain isotopes in the frozen water to get an idea of the prevailing atmospheric temperature at the time when that particular bit of water became locked in the glacier.

The result is a remarkable unbroken record of temperature and of atmospheric

- (15) levels of carbon dioxide. Almost every time the chill of an ice age descended on the planet, carbon dioxide levels dropped. When the global temperature dropped 9°F (5 °C), carbon dioxide levels dropped to 190 parts per million or so. Generally, as each ice age ended and the Earth basked in a warm interglacial period, carbon dioxide levels were around 280 parts per million. Through the 160,000 years of that ice
- (20) record, the level of carbon dioxide in the atmosphere fluctuated between 190 and 280 parts per million, but never rose much higher-until the Industrial Revolution beginning in the eighteenth century and continuing today.

- There is indirect evidence that the link between carbon dioxide levels and global temperature change goes back much further than the glacial record. Carbon
- (25) dioxide levels may have been much greater than the current concentration during the Carboniferous period, 360 to 285 million years ago. The period was named for a profusion of plant life whose buried remains produced a large fraction of the coal deposits that are being brought to the surface and burned today.

40. Which of the following does the passage mainly discuss?  
 (A) Chemical causes of ice ages  
 (B) Techniques for studying ancient layers of ice in glaciers  
 (C) Evidence of a relationship between levels of carbon dioxide and global temperature  
 (D) Effects of plant life on carbon dioxide levels in the atmosphere
41. The word "accumulated" in line 6 is closest in meaning to  
 (A) spread out                      (B) changed                      (C) became denser                      (D) built up
42. According to the passage, the drilling of the glacier in eastern Antarctica was important because it  
 (A) allowed scientists to experiment with new drilling techniques  
 (B) permitted the study of surface temperatures in an ice-covered region of Earth  
 (C) provided insight about climate conditions in earlier periods  
 (D) confirmed earlier findings about how glaciers are formed
43. The phrase "tantamount to" in line 7 is closest in meaning to  
 (A) complementary to                      (B) practically the same as  
 (C) especially well suited to                      (D) unlikely to be confused with
44. ???
45. According to the passage, scientists used isotopes from the water of the ice core to determine which of following?  
 (A) The amount of air that had bubbled to the surface since the ice had formed  
 (B) The temperature of the atmosphere when the ice was formed  
 (C) The date at which water had become locked in the glacier  
 (D) The rate at which water had been frozen in the glacier
46. The word "remarkable" in line 14 is closest in meaning to  
 (A) genuine                      (B) permanent                      (C) extraordinary                      (D) continuous
47. The word "link" in line 23 is closest in meaning to  
 (A) tension                      (B) connection                      (C) attraction                      (D) distance
48. The passage implies that the warmest temperatures among the periods mentioned occurred  
 (A) in the early eighteenth century                      (B) 160,000 years ago  
 (C) at the end of each ice age                      (D) between 360 and 285 million years ago
49. According to the passage, the Carboniferous period was characterized by  
 (A) a reduction in the number of coal deposits



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- (B) the burning of a large amount of coal
- (C) an abundance of plants
- (D) an accelerated rate of glacier formation

**50.** The passage explains the origin of which of the following terms?

- (A) Glacier (line 5)
- (B) Isotopes (line 11)
- (C) Industrial Revolution (line 21)
- (D) Carboniferous period (lines 26)

# PRACTICE TEST 10

## January 2001

### Questions 1-9

In 1972, a century after the first national park in the United States was established at Yellowstone, legislation was passed to create the National Marine Sanctuaries Program. The intent of this legislation was to provide protection to selected coastal habitats similar to that existing for land areas designated as national parks. The designation of an area as a marine sanctuary indicates that it is a protected area, just as a national park is. People are permitted to visit and observe there, but living organisms and their environments may not be harmed or removed.

- (10) The National Marine Sanctuaries Program is administered by the National Oceanic and Atmospheric Administration, a branch of the United States Department of Commerce. Initially, 70 sites were proposed as candidates for sanctuary status. Two and a half decades later, only fifteen sanctuaries had been designated, with half of these established after 1978. They range in size from the very small (less than 1 square kilometer) Fagatele Bay National Marine Sanctuary in American Samoa to the Monterey Bay National Marine Sanctuary in California, extending over 15,744 square kilometers.
- (15) The National Marine Sanctuaries Program is a crucial part of new management practices in which whole communities of species, and not just individual species, are offered some degree of protection from habitat degradation and overexploitation. Only in this way can a reasonable degree of marine species diversity be maintained in a setting that also maintains the natural interrelationships that exist among these species.
- (20) Several other types of marine protected areas exist in the United States and other countries. The National Estuarine Research Reserve System, managed by the United States government, includes 23 designated and protected estuaries. Outside the United States, marine protected-area programs exist as marine parks, reserves, and preserves. Over 100 designated areas exist around the periphery of the Caribbean Sea. Others range from the well-known Australian Great Barrier Reef Marine Park to lesser-known parks in countries such as Thailand and Indonesia, where tourism is placing growing pressures on fragile coral reef systems. As state, national, and international agencies come to recognize the importance of conserving marine biodiversity, marine protected areas, whether as sanctuaries, parks, or estuarine reserves, will play an increasingly important role in preserving that diversity.

1. What does the passage mainly discuss?  
(A) Differences among marine parks, sanctuaries, and reserves  
(B) Various marine conservation programs  
(C) International agreements on coastal protection  
(D) Similarities between land and sea protected environments
2. The word "intent" in line 3 is closest in meaning to  
(A) repetition                      (B) approval                      (C) goal                      (D) revision
3. The word "administered" in line 8 is closest in meaning to  
(A) managed                      (B) recognized                      (C) opposed                      (D) justified
4. The word "these" in line 11 refers to  
(A) sites                      (B) candidates                      (C) decades                      (D) sanctuaries

5. The passage mentions the Monterey Bay National Marine Sanctuary (lines 13-14) as an example of a sanctuary that
- (A) is not well know
  - (B) covers a large area
  - (C) is smaller than the Fagatele Bay National Marine Sanctuary
  - (D) was not originally proposed for sanctuary status
6. According to the passage, when was the National Marine Sanctuaries Program established?
- (A) Before 1972
  - (B) After 1987
  - (C) One hundred years before national parks were established
  - (D) One hundred years after Yellowstone National Park was established
7. According to the passage, all of the following are achievements of the National Marine Sanctuaries Program EXCEPT
- (A) the discovery of several new marine organisms
  - (B) the preservation of connections between individual marine species
  - (C) the protection of coastal habitats
  - (D) the establishment of areas where the public can observe marine life
8. The word “periphery” in line 24 is closest in meaning to
- (A) depth
  - (B) landmass
  - (C) warm habitat
  - (D) outer edge
9. The passage mentions which of the following as a threat to marine areas outside the United States?
- (A) Limitations in financial support
  - (B) The use of marine species as food
  - (C) Variability of the climate
  - (D) Increases in tourism

### Questions 10-17

From their inception, most rural neighborhoods in colonial North America included at least one carpenter, joiner, sawyer, and cooper in woodworking; a weaver and a tailor for clothing production; a tanner, currier, and cordwainer (shoemaker) for fabricating leather objects; and a blacksmith for metalwork. Where stone was the local building material, a mason was sure to appear on the list of people who paid taxes. With only an apprentice as an assistant, the rural artisan provided the neighborhood with common goods from furniture to shoes to farm equipment in exchange for cash or for “goods in kind” from the customer’s field, pasture, or dairy. Sometimes artisans transformed material provided by the customer wove cloth of yam spun at the farm from the wool of the family sheep; made chairs or tables from wood cut in the customer’s own woodlot; produced shoes or leather breeches from cow, deer, or sheepskin tanned on the farm.

Like their farming neighbors, rural artisans were part of an economy seen, by one historian, as “an orchestra conducted by nature.” Some tasks could not be done in the winter, other had to be put off during harvest time, and still others waited on raw materials that were only produced seasonally. As the days grew shorter, shop hours kept pace, since few artisans could afford enough artificial light to continue work when the Sun went down. To the best of their ability, colonial artisans tried to keep their shops as efficient as possible and to regularize their schedules and methods of production for the best return on their investment in time, tools, and materials. While it is pleasant to imagine a woodworker, for example, carefully matching lumber, joining a chest together without resort to nails or glue, and applying all thought and energy to carving beautiful designs on the finished piece, the time required was not justified unless the customer was willing to pay extra for the quality –

and few in rural areas were, Artisans, therefore, often found it necessary to employ as many shortcuts and economics as possible while still producing satisfactory products.

10. What aspect of rural colonial North America does the passage mainly discuss?  
 (A) Farming practices  
 (B) The work of artisans  
 (C) The character of rural neighborhoods  
 (D) Types of furniture that were popular
11. The word "inception" in line 1 is closest in meaning to  
 (A) investigation (B) location (C) beginning (D) records
12. The word "fabricating" in line 3 is closest in meaning to  
 (A) constructing (B) altering (C) selecting (D) demonstrating
13. It can be inferred from the from the passage that the use of artificial light in colonial times was  
 (A) especially helpful to woodworkers (B) popular in rural areas  
 (C) continuous in winter (D) expensive
14. Why did colonial artisans want to "regularize their schedules their schedules" (line 18)?  
 (A) To enable them to produce high quality products  
 (B) To enable them to duplicate an item many times  
 (C) To impress their customers  
 (D) To keep expenses low
15. The phrase "resort to" in line 20 is closest in meaning to  
 (A) protecting with (B) moving toward (C) manufacturing (D) using
16. The word "few" in lines 23 refers to  
 (A) woodworkers (B) finished pieces  
 (C) customers (D) chests
17. It can inferred that the artisans referred to in the passage usually produced products that were  
 (A) simple (B) delicate  
 (C) beautifully decorated (D) exceptionally long-lasting

### Questions 18-28

Cities develop as a result of functions that they can perform. Some functions result directly from the ingenuity of the citizenry, but most functions result from the needs of the local area and of the surrounding hinterland (the region that supplies goods to the city and to which the city furnishes services and other goods). Geographers often make

(5) a distinction between the situation and the site of a city. Situation refers to the general position in relation to the surrounding region, whereas site involves physical characteristics of the specific location. Situation is normally much more important to the continuing prosperity of a city. if a city is well situated in regard to its hinterland, its development is much more likely to continue. Chicago, for example, possesses an almost

(10) unparalleled situation: it is located at the southern end of a huge lake that forces east-west transportation lines to be compressed into its vicinity, and at a meeting of significant land and water transport routes. It also overlooks what is one of the world's finest large farming regions. These factors ensured that Chicago would become a great city regardless of the disadvantageous characteristics of the available site, such as being prone to flooding

(15) during thunderstorm activity.

Similarly, it can be argued that much of New York City's importance stems from its

- early and continuing advantage of situation. Philadelphia and Boston both originated at about the same time as New York and shared New York's location at the western end of one of the world's most important oceanic trade routes, but only New York possesses an
- (20) easy-access functional connection (the Hudson-Mohawk lowland) to the vast Midwestern hinterland. This account does not alone explain New York's primacy, but it does include several important factors. Among the many aspects of situation that help to explain why some cities grow and others do not, original location on a navigable waterway seems particularly applicable. Of course, such characteristic as slope, drainage, power
- (25) resources, river crossings, coastal shapes, and other physical characteristics help to determine city location, but such factors are normally more significant in early stages of city development than later.

18. What does the passage mainly discuss?
- (A) The development of trade routes through United States cities  
(B) Contrasts in settlement patterns in United States  
(C) Historical differences among three large United States cities  
(D) The importance of geographical situation in the growth of United States cities
19. The word "ingenuity" in line 2 is closest in meaning to
- (A) wealth (B) resourcefulness (C) traditions (D) organization
20. The passage suggests that a geographer would consider a city's soil type part of its
- (A) hinterland (B) situation (C) site (D) function
21. According to the passage, a city's situation is more important than its site in regard to the city's.
- (A) long-term growth and prosperity  
(B) ability to protect its citizenry  
(C) possession of favorable weather conditions  
(D) need to import food supplies
22. The author mentions each of the following as an advantage of Chicago's location EXCEPT its.
- (A) hinterland (B) nearness to a large lake  
(C) position in regard to transport routes (D) flat terrain
23. The word "characteristics" in line 14 is closest in meaning to
- (A) choices (B) attitudes (C) qualities (D) inhabitants
24. The primary purpose of paragraph 1 is to
- (A) summarize past research and introduce anew study  
(B) describe a historical period  
(C) emphasize the advantages of one theory over another  
(D) define a term and illustrate it with an example
25. According to the passage, Philadelphia and Boston are similar to New York City in
- (A) size of population (B) age  
(C) site (D) availability of rail transportation
26. The word "functional" in line 20 is closest in meaning to
- (A) alternate (B) unknown (C) original (D) usable
27. The word "it" in line 21 refers to
- (A) account (B) primacy (C) connection (D) hinterland
28. The word "significant" in line 26 is closest in meaning to
- (A) threatening (B) meaningful (C) obvious (D) available

### Questions 29-10

The largest of the giant gas planets, Jupiter, with a volume 1,300 times greater than Earth's, contains more than twice the mass of all the other planets combined. It is thought to be a gaseous and fluid planet without solid surfaces. Had it been somewhat more massive, Jupiter might have attained internal temperatures as high as the ignition point for nuclear reactions, and it would have flamed as a star in its own right. Jupiter and the other giant planets are of a low-density type quite distinct from the terrestrial planets: they are composed predominantly of such substances as hydrogen, helium, ammonia, and methane, unlike terrestrial planets. Much of Jupiter's interior might be in the form of liquid, metallic hydrogen. Normally, hydrogen is a gas, but under pressures of millions of kilograms per square centimeter, which exist in the deep interior of Jupiter, the hydrogen atoms might lock together to form a liquid with the properties of a metal. Some scientists believe that the innermost core of Jupiter might be rocky, or metallic like the core of Earth. Jupiter rotates very fast, once every 9.8 hours. As a result, its clouds, which are composed largely of frozen and liquid ammonia, have been whipped into alternating dark and bright bands that circle the planet at different speeds in different latitudes. Jupiter's puzzling Great Red Spot changes size as it hovers in the Southern Hemisphere. Scientists speculate it might be a gigantic hurricane, which because of its large size (the Earth could easily fit inside it), lasts for hundreds of years.

Jupiter gives off twice as much heat as it receives from the Sun. Perhaps this is primeval heat or heat generated by the continued gravitational contraction of the planet. Another starlike characteristic of Jupiter is its sixteen natural satellites, which, like a miniature model of the Solar System, decrease in density with distance – from rocky moons close to Jupiter to icy moons farther away. If Jupiter were about 70 times more massive, it would have become a star. Jupiter is the best-preserved sample of the early solar nebula, and with its satellites, might contain the most important clues about the origin of the Solar System.

29. The word "attained" in line 4 is closest in meaning to  
 (A) attempted (B) changed (C) lost (D) reached
30. The word "flamed" in line 5 is closest in meaning to  
 (A) burned (B) divided (C) fallen (D) grown
31. The word "they" in line 6 refers to  
 (A) nuclear reactions (B) giant planets (C) terrestrial (D) substances
32. According to the passage, hydrogen can become a metallic-like liquid when it is  
 (A) extremely hot (B) combined with helium  
 (C) similar atmospheres (D) metallic cores
33. According to the passage, some scientists believe Jupiter and Earth are similar in that they both have  
 (A) solid surfaces (B) similar masses  
 (C) similar atmospheres (D) metallic cores
34. The clouds surrounding Jupiter are mostly composed of  
 (A) ammonia (B) helium (C) hydrogen (D) methane
35. It can be inferred from the passage that the appearance of alternating bands circling Jupiter is caused by

**PRACTICE TEST 10 – January 2001**

- (A) the Great Red Spot  
(C) the planet's fast rotation
- (B) heat from the Sun  
(D) Storms from the planet's Southern Hemisphere
36. The author uses the word "puzzling" in line 15 to suggest that the Great Red Spot is  
(A) the only spot of its kind  
(C) among the largest of such spots
- (B) not well understood  
(D) a problem for the planet's continued existence
37. Paragraph 3 supports which of the following conclusions?  
(A) Jupiter gives off twice as much heat as the Sun.  
(B) Jupiter has a weaker gravitational force than the other planets.  
(C) Scientists believe that Jupiter was once a star.  
(D) Scientists might learn about the beginning of the Solar System by Studying Jupiter.
38. Why does the author mention primeval heat (lines 19-20) ?  
(A) To provide evidence that Jupiter is older than the Sun  
(B) To provide evidence that Jupiter is older than the other planets  
(C) To suggest a possible explanation for the number of satellites that Jupiter has  
(D) To suggest a possible source of the quantity of heat that Jupiter gives off
39. According to the passage, Jupiter's most distant moon is  
(A) the least dense  
(C) warm on the surface
- (B) the largest  
(D) very rocky on the surface
40. Which of the following statements is supported by the passage?  
(A) If Jupiter had fewer satellites, it would be easier for scientists to study the planet itself.  
(B) If Jupiter had had more mass, it would have developed internal nuclear reactions.  
(C) If Jupiter had been smaller, it would have become a terrestrial planet.  
(D) if Jupiter were larger, it would give off much less heat

**Questions 41-50**

The term "art deco" has come to encompass three distinct but related design trends of the 1920's and 1930's. The first was what is frequently referred to as "zigzag moderne" –the exotically ornamental style of such skyscrapers as the Chrysler Building

- Line* in New York City and related structures such as the Paramount Theater in Oakland,  
(5) California The word "zigzag" alludes to the geometric and stylized ornamentation of zigzags, angular patterns, abstracted plant and animal motifs, sunbursts, astrological imagery, formalized fountains, and related themes that were applied in mosaic relief and mural form to the exterior and interior of the buildings. Many of these buildings were shaped in the ziggurat form, a design resembling an ancient Mesopotamian temple tower  
(10) that recedes in progressively smaller stages to the summit, creating a staircase-like effect.

The second manifestation of art deco was the 1930's streamlined moderne" style – a Futuristic-looking aerodynamic style of rounded corners and horizontal bands known as "speed stripes." In architecture, these elements were frequently accompanied by round windows, extensive use of glass block, and flat rooftops.

- (15) The third style, referred to as either " international stripped classicism," or simply "classical moderne," also came to the forefront during the Depression, a period of severe economic difficult in the 1930's. This was amore conservative style, blending a simplified modernistic style with a more austere form of geometric and stylized relief sculpture and other ornament, including interior murals. May buildings in this style  
(20) were erected nationwide through government programs during the Depression.

Although art deco in its many forms was largely perceived as thoroughly modern,

- it was strongly influenced by the decorative arts movements that immediately preceded it. For example, like “art nouveau” (1890-1910), art deco also used plant motifs, but regularized the forms into abstracted repetitive patterns rather than presenting them as
- (25) flowing, asymmetrical foliage, Like the Viennese craftspeople of the Wiener Werkstatte, art deco designers worked with exotic materials, geometricized shapes, and colorfully ornate patterns. Furthermore, like the artisans of the Arts and Crafts Movement in England and the United States, art deep practitioners considered it their mission to transform the domestic environment through well-designed furniture and household accessories.
41. What aspect of art deco does the passage mainly discuss?  
 (A) The influence of art deco on the design of furniture and household accessories  
 (B) Ways in which government programs encouraged the development of art deco  
 (C) Architectural manifestations of art deco during the 1920's and 1930's  
 (D) Reasons for the popularity of art deco in New York and California
42. The word “encompass” in line 1 is closest in meaning to  
 (A) separate (B) include (C) replace (D) enhance
43. The phrase “The first” in line 2 refers to  
 (A) the term “art deco” (B) design trends  
 (C) the 1920's and 1930's (D) skyscrapers
44. In line 9, the author mentions “an ancient Mesopotamian temple tower ” in order to  
 (A) describe the exterior shape of certain “art deco” buildings  
 (B) explain the differences between ancient and modern architectural steles  
 (C) emphasize the extent of architectural advances  
 (D) argue for a return to more traditional architectural design
45. The streamlined moderne style is characterized by all of the following EXCEPT  
 (A) animal motifs (B) flat roofs  
 (C) round windows (D) “speed stripes”
46. The phrase “came to the forefront” in line 16 is closest in meaning to  
 (A) grew in complexity (B) went through a process  
 (C) changed its approach (D) became important
47. According to the passage, which of the following statements most accurately describes the relationship between art deco and art nouveau?  
 (A) They were art forms that competed with each other for government support during the Depression era.  
 (B) They were essentially the same art form.  
 (C) Art nouveau preceded art deco and influenced it.  
 (D) Art deco became important in the United States while art nouveau became popular in England.
48. According to the passage, a building having an especially ornate appearance would most probably have been designed in the style of  
 (A) zigzag moderne (B) streamlined moderne  
 (C) classical moderne (D) the Arts and Crafts Movement
49. According to the passage, which of the following design trends is known by more than one name ?  
 (A) Zigzag moderne (B) Streamlined moderne  
 (C) International stripped classicism (D) Arts and Crafts Movement
50. The passage is primarily developed as  
 (A) the historical chronology of a movement  
 (B) a description of specific buildings that became famous for their unusual beauty  
 (C) an analysis of various trends within an artistic movement



(D) an argument of the advantages of one artistic form over another

# PRACTICE TEST 11

## May 2001

### Questions 1-10

In the early 1800's, over 80 percent of the United States labor force was engaged in agriculture. Sophisticated technology and machinery were virtually nonexistent.

People who lived in the cities and were not directly involved in trade often participated in small cottage industries making handcrafted goods. Others cured meats, silversmiths, candle makers, and other artisans worked in their homes or barns, relying on help of family

Perhaps no single phenomenon brought more widespread and lasting change to the United States society than the rise of industrialization. Industrial growth hinged on several economic factors. First, industry requires an abundance of natural resources, especially coal, iron ore, water, petroleum, and timber—all readily available on the North American continent. Second, factories demand a large labor supply. Between the 1870's and the First World War (1914-1918), approximately 23 million immigrants streamed to the United States, settled in cities, and went to work in factories and mines. They also helped build the vast network of canals and railroads that crisscrossed the continent and linked important trade centers essential to industrial growth.

Factories also offered a reprieve from the backbreaking work and financial unpredictability associated with farming. Many adults, poor and disillusioned with farm life, were lured to the cities by promises of steady employment, regular paychecks, increased access to goods and services, and expanded social opportunities. Others were pushed there when new technologies made their labor cheap or expendable; inventions such as steel plows and mechanized harvesters allowed one farmhand to perform work that previously had required several, thus making farming capital-intensive rather than labor-intensive.

The United States economy underwent a massive transition and the nature of work was permanently altered. Whereas cottage industries relied on a few highly skilled craft workers who slowly and carefully converted raw materials into finished products from start to finish, factories relied on specialization. While factory work was less creative and more monotonous, it was also more efficient and allowed mass production of goods at less expense.

1. What aspect of life in the United States does the passage mainly discuss?

- (A) The transition from an agricultural to an industrial economy
- (B) The inventions that transformed life in the nineteenth century
- (C) The problems associated with the earliest factories
- (D) The difficulty of farm life in the nineteenth century

2. Blacksmiths, silversmiths, and candle makers are mentioned in lines 5-6 as examples of artisans who

- (A) maintained their businesses at home
- (B) were eventually able to use sophisticated technology
- (C) produced unusual goods and commodities
- (D) would employ only family members

3. The phrase "hinged on" in line 9 is closest in meaning to

- (A) recovered from
- (B) depended on
- (C) started on
- (D) contributed to

4. Which of the following is mentioned in the passage as a reason for the industrial growth that occurred in the United States before 1914?
- (A) The availability of natural resources found only in the United States  
(B) The decrease in number of farms resulting from technological advances  
(C) The replacement of canals and railroads by other forms of transportation  
(D) The availability of a large immigrant work force
5. The word “lured” in line 19 is closest in meaning to
- (A) attracted                      (B) assigned                      (C) restricted                      (D) attached
6. The word “Others” in line 20 refers to other
- (A) adults    (B) promises  
(C) goods and services                              (D) social opportunities
7. The word “expendable” in line 21 is closest in meaning to
- (A) nonproductive                      (B) unacceptable                      (C) nonessential                      (D) unprofitable
8. It can be inferred from the passage that industrialization affected farming in that industrialization
- (A) increased the price of farm products  
(B) limited the need for new farm machinery  
(C) created new and interesting jobs on farms  
(D) reduced the number of people willing to do farm work
9. What does the author mean when stating that certain inventions made farming “capital-intensive rather than labor-intensive” (lines 23-24)?
- (A) Workers had to be trained to operate the new machines.  
(B) Mechanized farming required more capital and fewer laborers.  
(C) The new inventions were not helpful for all farming activities.  
(D) Human labor could still accomplish as much work as the first machines.
10. According to the passage, factory workers differed from craft workers in that factory workers
- (A) were required to be more creative  
(B) worked extensively with raw materials  
(C) changed jobs frequently  
(D) specialized in one aspect of the finished product only

**Question 11-20**

Molting is one of the most involved processes of a bird’s annual life cycle.

Notwithstanding preening and constant care, the marvelously intricate structure of a bird’s Feather inevitably wears out. All adult birds molt their feathers at least once a year, and

*Line* upon close observation, one can recognize the frayed, ragged appearance of feathers that  
(5) are nearing the end of their useful life. Two distinct processes are involved in molting.

The first step is when the old, worn feather is dropped, or shed. The second is when a new feather grows in its place. When each feather has been shed and replaced, then the molt can be said to be complete. This, however, is an abstraction that often does not happen: incomplete, overlapping, and arrested molts are quite common.

(10) Molt requires that a bird find and process enough protein to rebuild approximately one-third of its body weight. It is not surprising that a bird in heavy molt often seems listless and unwell. But far from being random, molt is controlled by strong evolutionary forces that have established an optimal time and duration. Generally, molt occurs at the time of least stress on the bird. Many songbirds, for instance, molt in late summer, when  
(15) the hard work of breeding is done but the weather is still warm and food still plentiful.

This is why the woods in late summer often seem so quiet, when compared with the exuberant choruses of spring.

- Molt of the flight feathers is the most highly organized part of the process. Some species, for example, begin by dropping the outermost primary feathers on each side (to retain  
(20) balance in the air) and wait until the replacement feathers are about one-third grown before shedding the next outermost, and so on. Others always start with the innermost primary feathers and work outward. Yet other species begin in the middle and work outward on both weeks while the replacement feathers grow.
11. The passage mainly discusses how  
 (A) birds prepare for breeding (B) bird feathers differ from species  
 (C) birds shed and replace their feathers (D) birds are affected by seasonal changes
12. The word "Notwithstanding" in line 2 is closest in meaning to  
 (A) despite (B) because of (C) instead of (D) regarding
13. The word "intricate" in line 2 is closest in meaning to  
 (A) regular (B) complex (C) interesting (D) important
14. The word "random" in line 12 is closest in meaning to  
 (A) unfortunate (B) unusual (C) unobservable (D) unpredictable
15. The word "optimal" in line 13 is closest in meaning to  
 (A) slow (B) frequent (C) best (D) early
16. Which of the following is NOT mentioned as a reason that songbirds molt in the late summer?  
 (A) Fewer predators are in the woods. (B) The weather is still warm.  
 (C) The songbirds have finished breeding. (D) Food is still available.
17. Some birds that are molting maintain balance during flight by  
 (A) constantly preening and caring for their remaining feathers  
 (B) dropping flight feathers on both sides at the same time  
 (C) adjusting the angle of their flight to compensate for lost feathers  
 (D) only losing one-third of their feathers
18. The word "Others" in line 21 refers to  
 (A) ducks (B) sides (C) species (D) flight feathers
19. The author discusses ducks in order to provide an example of birds that  
 (A) grow replacement feathers that are very long  
 (B) shed all their wing feathers at one time  
 (C) keep their innermost feathers  
 (D) shed their outermost feathers first
20. It can be inferred from the discussion about ducks that the molting of their flight feathers takes.  
 (A) a year (B) a season (C) several months (D) a few weeks

**Question 21-30**

The Harlem Renaissance, a movement of the 1920's, marked the twentieth century's first period of intense activity by African Americans in the field of literature, art, and music in the United States. The philosophy of the movement combined realism, ethnic consciousness, and Americanism. Encouraged by the example of certain Americans of European descent such as Thomas Eakins, Robert Henri, and George Luks, who had included persons of African descent in their paintings as serious studies rather than as trivial or sentimental stereotypes, African American artists of this period set about creating a new portrayal of themselves and their lives in the United States. As they began to strive for social and cultural independence. Their attitudes toward themselves changed, and, to some extent, other segments of American society began to change their attitudes toward them. Thus, though the Harlem Renaissance was a short-lived movement, its impact on American art and culture continues to the present.

The district in New York City known as Harlem was the capital of the movement. In 1925 an issue of *Survey Graphic* magazine devoted exclusively to Harlem and edited by philosopher Alain Locke became the manifesto of the African American artistic movement. Locke strongly suggested that individuals, while accepting their Americanism, take pride in their African ancestral arts and urged artists to look to Africa for substance and inspiration. Far from advocating a withdrawal from American culture, as did some of his contemporaries, Locke recommended a cultural pluralism through which artists could enrich the culture of America. African Americans were urged by Locke to be collaborators and participators with other Americans in art, literature, and music; and at the same time to preserve, enhance, and promote their own cultural heritage.

Artists and intellectuals from many parts of the United States and the Caribbean had been attracted to Harlem by the pulse and beat of its unique and dynamic culture. From this unity created by the convergence of artists from various social and geographical backgrounds came a new spirit, which, particularly in densely populated Harlem, was to result in greater group awareness and self-determination. African American graphic artists took their place beside the poets and writers of the Harlem Renaissance and carried on efforts to increase and promote the visual arts.

21. What does the passage mainly discuss?
- (A) African American paintings in the 1920's
  - (B) An arts movement of the 1920's
  - (C) The influence of Alain Locke on African American art
  - (D) Some ways in which African culture inspired American literature, art and music
22. According to the passage, Thomas Eakins, Robert Henri, and George Luks were important because of
- (A) the philosophical contributions they made to the Harlem Renaissance
  - (B) their development of a new style of African American art
  - (C) the way in which they depicted African Americans in their paintings
  - (D) their independence from European artistic traditions
23. The word "them" in line 11 refers to
- (A) Americans of European descent
  - (B) paintings
  - (C) African American artists
  - (D) attitudes

24. According to the passage, African American artists of the 1920's differed from earlier African American artists in terms of their feelings about  
 (A) themselves (B) other artists  
 (C) their impact on American art (D) stereotypes
25. The word "urged" in line 17 is closest in meaning to  
 (A) prepared (B) defined (C) permitted (D) encouraged
26. Alain Locke believed all of the following to be important to the African American artistic movement EXCEPT  
 (A) pride in African art (B) cultural pluralism  
 (C) collaboration with other artists (D) withdrawal from American culture
27. In mentioning "the pulse and beat" (line 24) of Harlem during the 1920's, the author is characterizing the district as one that  
 (A) depended greatly on its interaction with other parts of the city  
 (B) grew economically in a short period of time  
 (C) was an exciting place to be  
 (D) was in danger of losing population
28. The word "convergence" in line 25 is closest in meaning to  
 (A) gathering (B) promotion (C) expression (D) influence
29. According to the passage, all of the following were true of Harlem in the 1920's EXCEPT:  
 (A) Some Caribbean artists and intellectuals lived there.  
 (B) It attracted people from various regions of United States.  
 (C) It was one of the most expensive neighborhoods in New York City.  
 (D) It was a unique cultural center.
30. The phrase "carried on" in line 29 is closest in meaning to  
 (A) continued (B) praised (C) transformed (D) connected

### Questions 31-40

Ethology is concerned with the study of adaptive, or survival, value of behavior and its Evolutionary history. Ethological theory began to be applied to research on children in the 1960's but has become even more influential today. The origins of ethology can be traced  
 Line to the work of Darwin. Its modern foundations were laid by two European zoologists,  
 (5) Konrad Lorenz and Niko Tinbergen.

Watching the behaviors diverse animal species in their natural habitats, Lorenz, and Tinbergen observed behavior patterns that promote survival. The most well-known of these is *imprinting*, the early following behavior of certain baby birds that ensures that the young will stay close to their mother and be fed and protected from danger. Imprinting takes place  
 (10) during an early, restricted time period of development. If the mother goose is not present during this time, but an object resembling her in important features is, young goslings may imprint on it instead.

Observations of imprinting led to major concept that has been applied in child Development" the *critical period*. It refers to a limited times span during which the child is  
 (15) biologically prepared to acquire certain adaptive behaviors but needs the support of suitably stimulating environment. Many researchers have conducted studies to find out whether complex cognitive and social behaviors must be learned during restricted time periods. for example, if children are deprived of adequate food or physical and social stimulation

during the early years of life, will their intelligence be permanently impaired? If language  
(20) is not mastered during the preschool years, is the child's capacity to acquire it reduced?

Inspired by observations of imprinting, in 1969 the British psychoanalyst John Bowlby applied ethological theory to the understanding of the relationship between an infant and its parents. He argued that attachment behaviors of babies, such as smiling, babbling, grasping, and crying, are built-in social signals that encourage the parents to approach,  
(25) care for, and interact with the baby. By keeping a parent near, these behaviors help ensure that the baby will be fed, protected from danger, and provided with the stimulation and affection necessary for healthy growth. The development of attachment in human infants is a lengthy process involving changes in psychological structures that lead to a deep affectional tie between parent and baby.

31. What was Darwin's contribution to ethology?  
(A) Darwin improved on the original principles of ethology.  
(B) Darwin was the professor who taught Lorenz and Tinbergen.  
(C) Darwin's work provided the basis for ethology.  
(D) Darwin was the first person to apply ethological theory to children.
32. The word "diverse" in line 6 is closest in meaning to  
(A) small (B) varied (C) wild (D) particular
33. The word "ensures" in line 8 is closest in meaning to  
(A) guarantees (B) proves (C) teaches (D) assumes
34. According to the passage, if a mother goose is not present during the time period when imprinting takes place, which of the following will most likely occur?  
(A) The gosling will not imprint on any object.  
(B) The gosling may not find a mate when it matures.  
(C) The mother will later imprint on the gosling.  
(D) The gosling may imprint on another object.
35. The word "it" in line 12 refers to  
(A) development (B) goose (C) time (D) object
36. The word "suitably" in line 15 is closest in meaning to  
(A) willingly (B) moderately (C) appropriately (D) emotionally
37. The author mentions all of the following as attachment behaviors of human infants EXCEPT  
(A) grasping (B) crying (C) eating (D) smiling
38. According to the passage, attachment behaviors of infants are intended to  
(A) get the physical, emotional and social needs of the infant met  
(B) allow the infant to become imprinted on objects that resemble the parent  
(C) provide the infant with a means of self-stimulation  
(D) prepare the infant to cope with separation
39. The phrase "affectional tie" in line 29 is closest in meaning to  
(A) cognitive development (B) emotional attachment  
(C) psychological need (D) behavioral change
40. It can be inferred from the passage that ethological theory assumes that  
(A) to learn about human behavior only human subjects should be studied  
(B) failure to imprint has no influence on intelligence  
(C) the notion of critical periods applies only to animals  
(D) there are similarities between animal and human behavior

### Questions 41-50

There are only a few clues in the rock record about climate in the Proterozoic con. Much of our information about climate in the more recent periods of geologic history comes from the fossil record, because we have a reasonably good understanding of the types of environment in which many fossil organisms flourished. The scarce fossils of the Proterozoic, mostly single-celled bacteria, provide little evidence in this regard. However, the rocks themselves do include the earliest evidence for glaciation, probably a global ice age.

The inference that some types of sedimentary rocks are the result of glacial activity is based on the principle of uniformitarianism, which posits that natural processes now at work on and within the Earth operated in the same manner in the distant past. The deposits associated with present-day glaciers have been well studied, and some of their characteristics are quite distinctive. In 2.3-billion-year-old rocks in Canada near Lake Huron (dating from the early part of the Proterozoic age), there are thin laminae of fine-grained sediments that resemble varves, the annual layers of sediment deposited in glacial lakes. Typically, present-day varves show two-layered annual cycle, one layer corresponding to the rapid ice melting and sediment transport of the summer season, and the other, finer-grained, layer corresponding to slower winter deposition. Although it is not easy to discern such details in the Proterozoic examples, they are almost certainly glacial varves. These fine-grained, layered sediments even contain occasional large pebbles or "dropstones," a characteristic feature of glacial environments where coarse material is sometimes carried on floating ice and dropped far from its source, into otherwise very fine grained sediment. Glacial sediments of about the same age as those in Canada have been found in other parts of North America and in Africa, India, and Europe. This indicates that the glaciation was global, and that for a period of time in the early Proterozoic the Earth was gripped in an ice age.

Following the early Proterozoic glaciation, however, the climate appears to have been fairly benign for a very long time. There is no evidence for glaciation for the next 1.5 billion years or so. Then, suddenly, the rock record indicates a series of glacial episodes between about 850 and 600 million year ago, near the end of the Proterozoic con.

41. Which of the following does the passage mainly discuss?

- (A) How patterns in rock layers have been used to construct theories about the climate of the Proterozoic age
- (B) What some rare fossils indicate about glacial conditions during the late Proterozoic age
- (C) The varying characteristics of Proterozoic glacial varves in different parts of the world
- (D) The number of glacial episodes that the Earth has experienced since the Proterozoic age

42. According to the passage, the fossil record of the Proterozoic con is

- (A) highly regarded because it preserves the remains of many kinds of organisms
- (B) less informative than the fossil record of more recent periods



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- (C) very difficult to interpret due to damage from bacteria  
(D) more useful to researchers than other aspects of the rock record
43. The word “scarce” in line 4 is closest in meaning to  
(A) ancient                      (B) tiny                      (C) available                      (D) rare
44. It can be inferred from the passage that the principle of uniformitarianism indicates that  
(A) similar conditions produce similar rock formations  
(B) rock layers in a given region remain undisturbed over time  
(C) different kinds of sedimentary rocks may  
(D) each continent has its own distinctive pattern of sediment layers
45. The word “resemble” in line 14 is closest in meaning to  
(A) result from                      (B) penetrate  
(C) look like                      (D) replace have similar origins
46. According to the passage, the layers in varves are primarily formed by  
(A) fossilized bacteria  
(B) pieces of ancient dropstones  
(C) a combination of ancient and recent sediments  
(D) annual cycles of sediment transport and deposition
47. The phrase “the other” in line 17 refers to another  
(A) annual cycle                      (B) glacial lake  
(C) layer of sediment                      (D) season
48. According to the passage, the presence of dropstones indicates that  
(A) the glacial environment has been unusually severe  
(B) the fine-grained sediment has built up very slowly  
(C) there has been a global ice age  
(D) coarse rock material has been carried great distances
49. Why does the author mention Canada, North America, Africa, India, and Europe in lines 23-24?  
(A) To demonstrate the global spread of dropstones  
(B) To explain the principles of varve formation  
(C) To provide evidence for the theory that there was a global ice age in the early Proterozoic eon  
(D) To illustrate the varied climatic changes of the Proterozoic eon in different parts of the globe
50. Which of the following terms is defined in the passage?  
(A) fossil record (line 3)                      (B) laminae (line 13)  
(C) varves (line 14)                      (D) glacial episodes (line 29)

# PRACTICE TEST 12

## August 2001

### Questions 1-9

Glass fibers have a long history. The Egyptians made coarse fibers by 1600 B.C., and fibers survive as decorations on Egyptian pottery dating back to 1375 B.C. During the Renaissance (fifteenth and sixteenth centuries A.D.), glassmakers from Venice used glass fibers to decorate the surfaces of plain glass vessels. However, glassmakers guarded their secrets so carefully that no one wrote about glass fiber production until the early seventeenth century.

The eighteenth century brought the invention of "spun glass" fibers. Rene-Antoine de Reaumur, a French scientist, tried to make artificial feathers from glass. He made fibers by rotating a wheel through a pool of molten glass, pulling threads of glass where the hot thick liquid stuck to the wheel. His fibers were short and fragile, but he predicted that spun glass fibers as thin as spider silk would be flexible and could be woven into fabric. By the start of the nineteenth century, glassmakers learned how to make longer, stronger fibers by pulling them from molten glass with a hot glass tube. Inventors wound the cooling end of the thread around a yarn reel, then turned the reel rapidly to pull more fiber from the molten glass. Wandering tradespeople began to spin glass fibers at fairs, making decorations and ornaments as novelties for collectors, but this material was of little practical use; the fibers were brittle, ragged, and no longer than ten feet, the circumference of the largest reels. By the mid-1870's, however, the best glass fibers were finer than silk and could be woven into fabrics or assembled into imitation ostrich feathers to decorate hats. Cloth of white spun glass resembled silver; fibers drawn from yellow-orange glass looked golden.

Glass fibers were little more than a novelty until the 1930's, when their thermal and electrical insulating properties were appreciated and methods for producing continuous filaments were developed. In the modern manufacturing process, liquid glass is fed directly from a glass-melting furnace into a bushing, a receptacle pierced with hundreds of fine nozzles, from which the liquid issues in fine streams. As they solidify, the streams of glass are gathered into a single strand and wound onto a reel.

1. Which of the following aspects of glass fiber does the passage mainly discuss?
  - (A) The major developments in its production
  - (B) Its relationship with pottery making
  - (C) Important inventors in its long history
  - (D) The variety of its uses in modern industry
2. The word "coarse" in line 1 is closest in meaning to
  - (A) decorative
  - (B) natural
  - (C) crude
  - (D) weak
3. Why was there nothing written about the making of Renaissance glass fibers until the seventeenth century?
  - (A) Glassmakers were unhappy with the quality of the fibers they could make.
  - (B) Glassmakers did not want to reveal the methods they used.
  - (C) Few people were interested in the Renaissance style of glass fibers.
  - (D) Production methods had been well known for a long time.

4. According to the passage, using a hot glass tube rather than a wheel to pull fibers from molten glass made the fibers  
(A) quicker to cool (B) harder to bend  
(C) shorter and more easily broken (D) longer and more durable
5. The phrase "this material" in line 16 refers to  
(A) glass fibers (B) decorations  
(C) ornaments (D) novelties for collectors
6. The word "brittle" in line 17 is closest in meaning to  
(A) easily broken (B) roughly made (C) hairy (D) shiny
7. The production of glass fibers was improved in the nineteenth century by which of the following  
(A) Adding silver to the molten glass  
(B) Increasing the circumference of the glass tubes  
(C) Putting silk thread in the center of the fibers  
(D) Using yam reels
8. The word "appreciated" in line 23 is closest in meaning to  
(A) experienced (B) recognized (C) explored (D) increased
9. Which of the following terms is defined in the passage?  
(A) invention (line 7) (B) circumference (line 17)  
(C) manufacturing process (line 24) (D) bushing (line 25)

### Questions 10-19

The most thoroughly studied cases of deception strategies employed by ground-nesting birds involve plovers, small birds that typically nest on beaches or in open fields, their nests merely scrapes in the sand or earth. Plovers also have an effective repertoire of tricks for distracting potential nest predators from their exposed and defenseless eggs or chicks.

- (5) The ever-watchful plover can detect a possible threat at a considerable distance. When she does, the nesting bird moves inconspicuously off the nest to a spot well away from eggs or chicks. At this point she may use one of several ploys. One technique involves first moving quietly toward an approaching animal and then setting off noisily through the grass or brush in a low, crouching run away from the nest, while emitting rodent like
- (10) squeaks. The effect mimics a scurrying mouse or vole, and the behavior rivets the attention of the type of predators that would also be interested in eggs and chicks. Another deception begins with quiet movement to an exposed and visible location well away from the nest. Once there, the bird pretends to incubate a brood. When the predator approaches, the parent flees, leaving the false nest to be searched. The direction in which
- (15) the plover "escapes" is such that if the predator chooses to follow, it will be led still further away from the true nest.

- The plover's most famous stratagem is the broken-wing display, actually a continuum of injury-mimicking behaviors spanning the range from slight disability to near-complete helplessness. One or both wings are held in an abnormal position, suggesting injury. The
- (20) bird appears to be attempting escape along an irregular route that indicates panic. In the most extreme version of the display, the bird flaps one wing in an apparent attempt to take to the air, flops over helplessly, struggles back to its feet, runs away a short distance, seemingly attempts once more to take off, flops over again as the "useless" wing fails to provide any lift, and so on. Few predators fail to pursue such obviously vulnerable prey. Needless to say, each short run between "flight attempts" is directed away from the nest.

10. What does the passage mainly discuss?  
 (A) The nest-building techniques of plovers  
 (B) How predators search for plovers  
 (C) The strategies used by plovers to deceive predators  
 (D) Why plovers are vulnerable to predators
11. The word "merely" in line 3 is closest in meaning to  
 (A) often (B) only (C) usually (D) at first
12. Which of the following is mentioned in the passage about plovers?  
 (A) Their eggs and chicks are difficult to find.  
 (B) They are generally defenseless when away from their nests.  
 (C) They are slow to react in dangerous situations.  
 (D) Their nests are on the surface of the ground.
13. The word "emitting" in line 9 is closest in meaning to  
 (A) bringing (B) attracting (C) producing (D) minimizing
14. In the deception technique described in paragraph 2 the plover tries to  
 (A) stay close to her nest (B) attract the predator's attention  
 (C) warn other plovers of danger (D) frighten the approaching predator
15. The word "spanning" in line 18 is closest in meaning to  
 (A) covering (B) selecting (C) developing (D) explaining
16. According to paragraph 4, which of the following aspects of the plover's behavior gives the appearance that it is frightened?  
 (A) Abnormal body position (B) Irregular escape route  
 (C) Unnatural wing movement (D) Unusual amount of time away from the nest
17. The word "pursue" in line 24 is closest in meaning to  
 (A) catch (B) notice (C) defend (D) chase
18. According to the passage, a female plover utilizes all of the following deception techniques EXCEPT  
 (A) appearing to be injured (B) sounding like another animal  
 (C) pretending to search for prey (D) pretending to sit on her eggs
19. Which of the following best describes the organization of the passage?  
 (A) A description of the sequence of steps involved in plovers nest building  
 (B) A generalization about plover behavior followed by specific examples  
 (C) A comparison and contrast of the nesting behavior of plovers and other ground nesting birds  
 (D) A cause-and-effect analysis of the relationship between a prey and a predator

Questions 20-28

The interrelationship of science, technology, and industry is taken for granted today – summed up, not altogether accurately, as "research and development." Yet historically this widespread faith in the economic virtues of science is a relatively recent phenomenon, dating back in the United States about 150 years, and in the Western world as a whole not over 300 years at most. Even in this current era of large scale, intensive research and development, the interrelationships involved in this process are frequently misunderstood. Until the coming of the Industrial Revolution, science and technology evolved for the most part independently of each other. Then as industrialization became increasingly complicated, the craft techniques of preindustrial society gradually gave way to a technology based on the systematic application of scientific knowledge and scientific methods. This changeover started slowly and progressed unevenly. Until late in the nineteenth century, only a few industries could use scientific techniques or cared about using them. The list expanded noticeably after 1870, but even then much of what passed for the application of science was "engineering science" rather than basic science.

(15) Nevertheless, by the middle of the nineteenth century, the rapid expansion of scientific knowledge and of public awareness-if not understanding-of it had created a belief that the advance of science would in some unspecified manner automatically generate economic benefits. The widespread and usually uncritical acceptance of this thesis led in turn to the assumption that the application of science to industrial purposes was a linear process, starting with fundamental science, then proceeding to applied science or technology, and through them to industrial use. This is probably the most common pattern, but it is not invariable. New areas of science have been opened up and fundamental discoveries made as a result of attempts to solve a specific technical or economic problem. Conversely, scientists who mainly do basic research also serve as consultants on projects that apply research in practical ways.

(25) In sum, the science-technology-industry relationship may flow in several different ways, and the particular channel it will follow depends on the individual situation. It may at times even be multidirectional.

20. What is the author's main purpose in the passage?
- (A) To show how technology influenced basic science
  - (B) To describe the scientific base of nineteenth-century American industries
  - (C) To correct misunderstandings about the connections between science, technology, and industry
  - (D) To argue that basic science has no practical application
21. The word "altogether" in line 2 is closest in meaning to
- (A) completely
  - (B) realistically
  - (C) individually
  - (D) understandably
22. The word "intensive" in line 5 is closest in meaning to
- (A) decreased
  - (B) concentrated
  - (C) creative
  - (D) advanced
23. The "list" mentioned in line 13 refers to
- (A) types of scientific knowledge
  - (B) changes brought by technology
  - (C) industries that used scientific techniques
  - (D) applications of engineering science
24. The understanding of research and development in the late nineteenth century is based on which of the following?
- (A) Engineering science is not very important.

- (B) Fundamental science naturally leads to economic benefits.  
 (C) The relationship between research and development should be criticized.  
 (D) Industrial needs should determine what areas fundamental science focuses on.
25. The word "it" in line 16 refers to  
 (A) understanding (B) public awareness  
 (C) scientific knowledge (D) expansion
26. The word "assumption" in line 19 is closest in meaning to  
 (A) regulation (B) belief (C) contract (D) confusion
27. Why does the author mention "consultants" in line 24 ?  
 (A) To show how new areas of science have given rise to new professions  
 (B) To distinguish between scientists who work in industry and those who do not  
 (C) To explain the ways in which scientists find financial support for their work  
 (D) To show how scientists who work in basic research contribute to applied science
28. Which of the following statements does the passage support?  
 (A) The development of science and of industry is now interdependent.  
 (B) Basic scientific research cannot generate practical applications.  
 (C) Industries should spend less money on research and development.  
 (D) Science and technology are becoming more separate.

### Questions 29-39

The economic depression in the late-nineteenth-century United States contributed significantly to a growing movement in literature toward realism and naturalism. After the 1870' s, a number of important authors began to reject the romanticism that had prevailed immediately following the Civil War of 1861-1865 and turned instead to realism.

(5) determined to portray life as it was, with fidelity to real life and accurate representation without idealization, they studied local dialects, wrote stories which focused on life in specific regions of the country, and emphasized the "true" relationships between people. In doing so, they reflected broader trends in the society, such as industrialization, evolutionary theory which emphasized the effect of the environment on humans, and the

(10) influence of science.

Realists such as Joel Chandler Harris and Ellen Glasgow depicted life in the South; Hamlin Garland described life on the Great Plains; and Sarah One Jewett wrote about everyday life in rural New England. Another realist, Bret Harte, achieved fame with stories that portrayed local life in the California mining camps.

(15) Samuel Clemens, who adopted the pen name Mark Twain, became the country's most outstanding realist author, observing life around him with a humorous and skeptical eye. In his stories and novels, Twain drew on his own experiences and used dialect and common speech instead of literary language, touching off a major change in American prose style. Other writers became impatient even with realism. Pushing evolutionary theory to its

(20) limits, they wrote of a world in which a cruel and merciless environment determined human fate. These writers, called naturalists, often focused on economic hardship, studying people struggling with poverty, and other aspects of urban and industrial life. Naturalists brought to their writing a passion for direct and honest experience.

Theodore Dreiser, the foremost naturalist writer, in novels such as *Sister Carrie*, grimly

(25) portrayed a dark world in which human beings were tossed about by forces beyond their

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understanding or control. Dreiser thought that writers should tell the truth about human affairs, not fabricate romance, and *Sister Carrie*, he said, was "not intended as a piece of literary craftsmanship, but was a picture of conditions."

29. Which aspect of late-nineteenth-century United States literature does the passage mainly discuss?  
(A) The influence of science on literature  
(B) The importance of dialects for realist writers  
(C) The emergence of realism and naturalism  
(D) The effects of industrialization on romanticism
30. The word "prevailed" in line 3 is closest in meaning to  
(A) dominated (B) transformed (C) entered (D) generalized
31. The word "they" in line 8 refers to  
(A) authors (B) dialects (C) stories (D) relationships
32. According to the passage, a highly significant factor in the development of realist and naturalist literature was  
(A) the Civil War  
(B) a recognition that romanticism was unpopular  
(C) an increased interest in the study of common speech  
(D) an economic depression
33. Realist writers took an interest in all of the following EXCEPT  
(A) human relationships (B) characteristics of different regions  
(C) the idealization of life (D) social and historical theories
34. The word "depicted" in line 11 is closest in meaning to  
(A) emphasized (B) described (C) criticized (D) classified
35. Why does the author mention mining camps in line 14?  
(A) To contrast the themes of realist and naturalist writers  
(B) To illustrate how Bret Harte differed from other authors  
(C) As an example of a topic taken up by realist writers  
(D) As an example of how setting can influence literary style
36. Which of the following wrote about life in rural New England?  
(A) Ellen Glasgow (B) Sarah Orne Jewett  
(C) Hamlin Garland (D) Mark Twain
37. Mark Twain is considered an important literary figure because he  
(A) was the first realist writer in the United States  
(B) rejected romanticism as a literary approach  
(C) wrote humorous stories and novels  
(D) influenced American prose style through his use of common speech
38. The word "foremost" in line 24 is closest in meaning to  
(A) most difficult (B) interesting (C) most focused (D) leading
39. Which of the following statements about Theodore Dreiser is supported by the passage?  
(A) He mainly wrote about historical subjects such as the Civil War.  
(B) His novels often contained elements of humor.  
(C) He viewed himself more as a social commentator than as a literary artist.  
(D) He believed writers should emphasize the positive aspects of life.

### Questions 40-50

In 1900 the United States had only three cities with more than a million residents—New York, Chicago, and Philadelphia. By 1930, it had ten giant metropolises. The newer ones experienced remarkable growth, which reflected basic changes in the economy.

*Line* The population of Los Angeles (114,000 in 1900) rose spectacularly in the early  
(5) decades of the twentieth century, increasing a dramatic 1,400 percent from 1900 to 1930.

A number of circumstances contributed to the meteoric rise of Los Angeles. The agricultural potential of the area was enormous if water for irrigation could be found, and the city founders had the vision and daring to obtain it by constructing a 225-mile aqueduct, completed in 1913, to tap the water of the Owens River. The city had a superb  
(10) natural harbor, as well as excellent rail connections. The climate made it possible to shoot motion pictures year-round; hence Hollywood. Hollywood not only supplied jobs; it disseminated an image of the good life in Southern California on screens all across the nation. The most important single industry powering the growth of Los Angeles, however, was directly linked to the automobile. The demand for petroleum to fuel gasoline engines  
(15) led to the opening of the Southern California oil fields, and made Los Angeles North America's greatest refining center.

Los Angeles was a product of the auto age in another sense as well: its distinctive spatial organization depended on widespread private ownership of automobiles. Los Angeles was a decentralized metropolis, sprawling across the desert landscape over an  
(20) area of 400 square miles. It was a city without a real center. The downtown business district did not grow apace with the city as a whole, and the rapid transit system designed to link the center with outlying areas withered away from disuse. Approximately 800,000 cars were registered in Los Angeles County in 1930, one per 2.7 residents. Some visitors from the east coast were dismayed at the endless urban sprawl and dismissed Los  
(25) Angeles as a mere collection of suburbs in search of a city. But the freedom and mobility of a city built on wheels attracted floods of migrants to the city.

40. What is the passage mainly about?

- (A) The growth of cities in the United States in the early 1900's
- (B) The development of the Southern California oil fields
- (C) Factors contributing to the growth of Los Angeles
- (D) Industry and city planning in Los Angeles

41. The author characterizes the growth of new large cities in the United States after 1900 as resulting primarily from

- (A) new economic conditions
- (B) images of cities shown in movies
- (C) new agricultural techniques
- (D) a large migrant population

42. The word "meteoric" in line 6 is closest in meaning to

- (A) rapid
- (B) famous
- (C) controversial
- (D) methodical

43. The word "it" in line 8 refers to

- (A) aqueduct
- (B) vision
- (C) water
- (D) agricultural potential



- 44.** According to the passage, the most important factor in the development of agriculture around Los Angeles was the
- (A) influx of "new residents to agricultural areas near the city
  - (B) construction of an aqueduct
  - (C) expansion of transportation facilities
  - (D) development of new connections to the city's natural harbor
- 45.** According to the passage, the initial success of Hollywood' s motion picture industry was due largely to the
- (A) availability of many skilled workers
  - (B) beauty of the countryside
  - (C) region's reputation for luxurious lifestyles
  - (D) region's climate and good weather
- 46.** It can be inferred from the passage that in 1930 the greatest number of people in the Los Angeles area were employed in
- (A) farming
  - (B) oil refining
  - (C) automobile manufacturing
  - (D) the motion picture industry
- 47.** According to the passage, the Southern California oil fields were initially exploited due to
- (A) the fuel requirements of Los Angeles' rail system
  - (B) an increase in the use of gasoline engines in North America
  - (C) a desire to put unproductive desert land to good use
  - (D) innovative planning on the part of the city founders
- 48.** The phrase "apace with" in line 21 is closest in meaning to
- (A) anew with
  - (B) apart from
  - (C) as fast as
  - (D) at the middle of
- 49.** It can be inferred from the passage that the spatial organization of Los Angeles contributed to the relative decline there of
- (A) public transportation
  - (B) industrial areas
  - (C) suburban neighborhoods
  - (D) oil fields
- 50.** The visitors from the east coast mentioned in the passage thought that Los Angeles
- (A) was not accurately portrayed by Hollywood images
  - (B) lacked good suburban areas in which to live
  - (C) had an excessively large population
  - (D) was not really a single city

# PRACTICE TEST 13

## October 2001

### Question 1-9

Composers today use a wider variety of sounds than ever before, including many that were once considered undesirable noises. Composer Edgar Varese (1883-1965) called thus the "liberation of sound...the right to make music with any and all sounds."

- Line* Electronic music, for example – made with the aid of computers, synthesizers, and  
(5) electronic instruments – may include sounds that in the past would not have been considered musical. Environmental sounds, such as thunder, and electronically generated hisses and blips can be recorded, manipulated, and then incorporated into a musical composition. But composers also draw novel sounds from voices and nonelectronic instruments. Singers may be asked to scream, laugh, groan, sneeze, or to sing phonetic  
(10) sounds rather than words. Wind and string players may lap or scrape their instruments. A brass or woodwind player may hum while playing, to produce two pitches at once; a pianist may reach inside the piano to pluck a string and then run a metal blade along it. In the music of the Western world, the greatest expansion and experimentation have involved percussion instruments, which outnumber strings and winds in many recent compositions.  
(15) Traditional percussion instruments are struck with new types of beaters; and instruments that used to be considered unconventional in Western music – tom-toms, bongos, slapsticks, maracas – are widely used.

- In the search for novel sounds, increased use has been made in Western music of  
(20) Microtones. Non-Western music typically divides an interval between two pitches more finely than Western music does, thereby producing a greater number of distinct tones, or micro tones, within the same interval. Composers such as Krzysztof Penderecki create sound that borders on electronic noise through tone clusters – closely spaced tones played together and heard as a mass, block, or band of sound. The directional aspect of sound has taken on new importance as well. Loudspeakers or groups of instruments may be placed  
(25) at opposite ends of the stage, in the balcony, or at the back and sides of the auditorium. Because standard music notation makes no provision for many of these innovations, recent music scores may contain graphlike diagrams, new note shapes and symbols, and novel ways of arranging notation on the page.

1. What does the passage mainly discuss?  
(A) The use of nontraditional sounds in contemporary music  
(B) How sounds are produced electronically  
(C) How standard musical notation has been adapted for nontraditional sounds  
(D) Several composers who have experimented with the electronic production of sound
2. The word "wider" in line 1 is closest in meaning to  
(A) more impressive  
(B) more distinctive  
(C) more controversial  
(D) more extensive
3. The passage suggests that Edgar Varese is an example of a composer who  
(A) criticized electronic music as too noiselike  
(B) modified some of the electronic instruments he used in his music  
(C) believed that any sound could be used in music  
(D) wrote music with environmental themes
4. The word "it" in line 12 refers to  
(A) piano  
(B) string  
(C) blade  
(D) music

5. According to the passage, which of the following types of instruments has played a role in much of the innovation in Western music?  
(A) String (B) Percussion (C) Woodwind (D) Brass
6. The word "thereby" in line 20 is closest in meaning to  
(A) in return for (B) in spite of  
(C) by the way (D) by that means
7. According to the passage, Krzysztof Penderecki is known for which of the following practices?  
(A) Using tones that are clumped together  
(B) Combining traditional and nontraditional instruments  
(C) Seating musicians in unusual areas of an auditorium  
(D) Playing Western music for non-Western audiences
8. According to the passage, which of the following would be considered traditional elements of Western music?  
(A) Microtones (B) Tom-toms and bongos  
(C) Pianos (D) Hisses
9. In paragraph 3, the author mentions diagrams as an example of a new way to  
(A) chart the history of innovation in musical notation  
(B) explain the logic of standard musical notation  
(C) design and develop electronic instruments  
(D) indicate how particular sounds should be produced

### Questions 10-19

What unusual or unique biological trait led to the remarkable diversification and unchallenged success of the ants for over 50 million years? The answer appears to be that they were the first group of predatory eusocial insects that both lived and foraged primarily in the soil and in rotting vegetation on the ground. Eusocial refers to a form of insect society characterized by specialization of tasks and cooperative care of the young; it is rare among insects. Richly organized colonies of the land made possible by eusociality enjoy several key advantages over solitary individuals.

Under most circumstances groups of workers are better able to forage for food and defend the nest, because they can switch from individual to group response and back again swiftly and according to need. When a food object or nest intruder is too large for one individual to handle, nestmates can be quickly assembled by alarm or recruitment signals. Equally important is the fact that the execution of multiple-step tasks is accomplished in a series-parallel sequence. That is, individual ants can specialize in particular steps, moving from one object (such as a larva to be fed) to another (a second larva to be fed). They do not need to carry each task to completion from start to finish – for example, to check the larva first, then collect the food, then feed the larva. Hence, if each link in the chain has many workers in attendance, a sense directed at any particular object is less likely to fail. Moreover, ants specializing in particular labor categories typically constitute a caste specialized by age or body form or both. There has been some documentation of the superiority in performance and net energetic yield of various castes for their modal tasks, although careful experimental studies are still relatively few. What makes ants unusual in the company of eusocial insects is the fact that they are the only eusocial predators (predators are animals that capture and feed on other animals) occupying the soil and ground litter. The eusocial termites live in the same places as ants

and also have wingless workers, but they feed almost exclusively on dead vegetation.

10. Which of the following questions does the passage primarily answer?  
 (A) How do individual ants adapt to specialized tasks?  
 (B) What are the differences between social and solitary insects?  
 (C) Why are ants predators?  
 (D) Why have ants been able to thrive for such a long time?
11. The word "unique" in line 1 is closest in meaning to  
 (A) inherited (B) habitual (C) singular (D) natural
12. The word "rotting" in line 4 is closest in meaning to  
 (A) decaying (B) collected (C) expanding (D) cultivated
13. The word "key" in line 7 is closest in meaning to  
 (A) uncommon (B) important (C) incidental (D) temporary
14. According to the passage, one thing eusocial insects can do is rapidly switch from  
 (A) one type of food consumption to another (B) one environment to another  
 (C) a solitary task to a group task (D) a defensive to an offensive stance
15. The task of feeding larvae is mentioned in the passage to demonstrate  
 (A) the advantages of specialization  
 (B) the type of food that larvae are fed  
 (C) the ways ant colonies train their young for adult tasks  
 (D) the different stages of ant development
16. The author uses the word "Hence" in line 16 to indicate  
 (A) a logical conclusion (B) the next step in a sense of steps  
 (C) a reason for further study (D) the relationship among ants
17. All of the following terms are defined in the passage EXCEPT  
 (A) eusocial (line 3) (B) series-parallel sequence (line 13)  
 (C) caste (line 19) (D) predators (line 23)
18. The word "they" in line 25 refers to  
 (A) termites (B) ants (C) places (D) predators
19. It can be inferred from the passage that one main difference between termites and ants is that termites  
 (A) live above ground (B) are eusocial  
 (C) protect their nests (D) eat almost no animal substances

### Questions 20-29

Glaciers are large masses of ice on land that show evidence of past or present movement. They grow by the gradual transformation of snow into glacier ice.

A fresh snowfall is a fluffy mass of loosely packed snowflakes, small delicate ice

- Line* crystals grown in the atmosphere. As the snow ages on the ground for weeks or months,  
 (5) the crystals shrink and become more compact, and the whole mass becomes squeezed together into a more dense form, granular snow. As new snow falls and buries the older snow, the layers of granular snow further compact to form firm, a much denser kind of snow, usually a year or more old, which has little pore space. Further burial and slow cementation – a process by which crystals become bound together in a mosaic of  
 (10) intergrown ice crystals – finally produce solid glacial ice. In this process of recrystallization, the growth of new crystals at the expense of old ones, the percentage of

air is reduced from about 90 percent for snowflakes to less than 20 percent for glacier ice. The whole process may take as little as a few years, but more likely ten or twenty years or longer. The snow is usually many meters deep by the time the lower layers are converted into ice.

(15)

In cold glaciers those formed in the coldest regions of the Earth, the entire mass of ice is at temperatures below the melting point and no free water exists. In temperate glaciers, the ice is at the melting point at every pressure level within the glacier, and free water is present as small drops or as larger accumulations in tunnels within or beneath the ice.

(20)

Formation of a glacier is complete when ice has accumulated to a thickness (and thus weight) sufficient to make it move slowly under pressure, in much the same way that solid rock deep within the Earth can change shape without breaking. Once that point is reached, the ice flows downhill, either as a tongue of ice filling a valley or as thick ice cap that flows out in directions from the highest central area where the most snow accumulates. The up down leads to the eventual melting of ice.

**20.** Which of the following does the passage mainly discuss?

- (A) The effect of glaciers on climate
- (B) Damage from glaciers
- (C) Glacier formation
- (D) The location of glaciers

**21.** Which of the following will cause density within the glacier to increase?

- (A) Increased water and air content
- (B) Pressure from the weight of new snow
- (C) Long periods of darkness and temperature variations
- (D) Movement of the glacier

**22.** The word "bound" in line 9 is closest in meaning to

- (A) covered
- (B) chosen
- (C) planned
- (D) held

**23.** Which of the following will be lost as a glacier forms?

- (A) Air
- (B) Pressure
- (C) Weight
- (D) Rocks

**24.** According to the passage, which of the following is the LEAST amount of time necessary for glacial ice to form?

- (A) Several months
- (B) Several years
- (C) At least fifty years
- (D) A century

**25.** The word "converted" in line 14 is closest in meaning to

- (A) changed
- (B) delayed
- (C) promoted
- (D) dissolved

**26.** What is the purpose of the material in paragraph three (lines 16-19)

- (A) To define two types of glaciers
- (B) To contrast glacier ice with non-glacier ice
- (C) To present theories of glacier formation
- (D) To discuss the similarities between glacial types

**27.** In temperate glaciers, where is water found?

- (A) Only near the surface
- (B) In pools at various depths
- (C) In a thin layer below the firm
- (D) In tunnels

**28.** The word "it" in line 21 refers to

- (A) formation
- (B) ice
- (C) thickness
- (D) weight

**29.** It can be inferred from the last paragraph that a glacier

- (A) can revert to a fluffy mass
- (B) maintains the same shape throughout the glacial process

- (C) is too cold to be thoroughly studied
- (D) can contribute water to lakes, rivers, or oceans

### Questions 30-39

The lack of printing regulations and the unenforceability of British copyright law in the American colonies made it possible for colonial printers occasionally to act as publishers. Although they rarely undertook major publishing project because it was difficult to sell books as cheaply as they could be imported from Europe, printers in Philadelphia did publish work that required only small amounts of capital, paper, and type. Broadsides could be published with minimal financial risk. Consisting of only one sheet of paper and requiring small amounts of type, broadsides involved lower investments of capital than longer works. Furthermore, the broadside format lent itself to subjects of high, if temporary, interest, enabling them to meet with ready sale. If the broadside printer miscalculated, however, and produced a sheet that did not sell, it was not likely to be a major loss, and the printer would know this immediately, There would be no agonizing wait with large amounts of capital tied up, books gathering dust on the shelves, and creditors impatient for payment

In addition to broadsides, books and pamphlets, consisting mainly of political tracts, catechisms, primers, and chapbooks were relatively inexpensive to print and to buy. Chapbook were pamphlet-sized books, usually containing popular tales, ballads, poems, short plays, and jokes, small, both in formal and number of pages, they were generally bound simply, in boards (a form of cardboard) or merely stitched in paper wrappers (a sewn antecedent of modern-day paperbacks). Pamphlets and chapbooks did not require fine paper or a great deal of type to produce they could thus be printed in large, cost-effective editions and sold cheaply.

By far, the most appealing publishing investments were to be found in small books that had proven to be steady sellers, providing a reasonably reliable source of income for the publisher. They would not, by nature, be highly topical or political, as such publications would prove of fleeting interest. Almanacs, annual publications that contained information on astronomy and weather patterns arranged according to the days, week, and months of a given year, provided the perfect steady seller because their information pertained to the locale in which they would be used

30. Which aspect of colonial printing does the passage mainly discuss?
- (A) Laws governing the printing industry.
  - (B) Competition among printers
  - (C) Types of publications produced
  - (D) Advances in printing technology
31. According to the passage, why did colonial printers avoid major publishing projects?
- (A) Few colonial printers owned printing machinery that was large enough to handle major projects.
  - (B) There was inadequate shipping available in the colonies.
  - (C) Colonial printers could not sell their work for a competitive price.
  - (D) Colonial printers did not have the skills necessary to undertake large publishing projects.
32. Broadsides could be published with little risk to colonial printers because they
- (A) required a small financial investment and sold quickly
  - (B) were in great demand in European markets
  - (C) were more popular with colonists than chapbooks and pamphlets
  - (D) generally dealt with topics of long-term interest to many colonists

33. The word "they" in line 17 refers to  
(A) chapbooks (B) tales (C) jokes (D) pages
34. The word "antecedent" in line 19 is closest in meaning to  
(A) predecessor (B) format (C) imitation (D) component
35. Chapbooks produced in colonial America were characterized by  
(A) fine paper (B) cardboard covers  
(C) elaborate decoration (D) a large number of pages
36. The word "appealing" in line 22 is closest in meaning to  
(A) dependable (B) respectable (C) enduring (D) attractive
37. What were "steady sellers" (line 23) ?  
(A) Printers whose incomes were quite large  
(B) People who traveled from town to town selling Books and pamphlets  
(C) Investors who provided reliable financial Support for new printers  
(D) Publications whose sales were usually consistent from year to year
38. The word "locale" in line 28 is closest in meaning to  
(A) topic (B) season (C) interest (D) place
39. All of the following are defined in the passage EXCEPT  
(A) "Broad­sides" (line 6) (B) "catechisms" (line 15)  
(C) "chapbooks" (line 16) (D) "Almanacs" (line 25)

**Questions 40-50**

Industrialization came to the United State after 1790 as North American entrepreneurs increased productivity by reorganizing work and building factories. These innovations in manufacturing boosted output and living standards to an unprecedented extent; the  
*Line* average per capita wealth increased by nearly 1 percent per year – 30 percent over  
(5) the course of a generation. Goods that had once been luxury items became part of everyday life.

The impressive gain in output stemmed primarily from the way in which workers made goods, since the 1790's, North American entrepreneurs – even without technological improvements – had broadened the scope of the outwork system that made manufacturing  
(10) more efficient by distributing materials to a succession of workers who each performed a single step of the production process. For example, during the 1820's and 1830's the shoe industry greatly expanded the scale and extend of me outwork system. Tens of thousands of rural women, paid according to the amount they produced, fabricated the "uppers" of shoes, which were bound to the soles by wage-earning journeymen shoemakers in dozens  
(15) of Massachusetts towns, whereas previously journeymen would have made the enduring shoe. This system of production made the employer a powerful "shoe boss" and eroded workers' control over the pace and conditions of labor. However, it also dramatically increased the output of shoes while cutting their price.

For tasks that were not suited to the outwork system, entrepreneurs created an even  
(20) more important new organization, the modern factory, which used power-driven machines and assembly-line techniques to turn out large quantities of well-made goods. As early as 1782 the prolific Delaware inventor Oliver Evans had built a highly automated, laborsaving flour mill driven by water power. His machinery lifted the grain to the top of

(25) the mill, cleaned it as it fell into containers known as hoppers, ground the grain into flour, and then conveyed the flour back to the top of the mill to allow it to cool as it descended into barrels. Subsequently, manufacturers made use of new improved stationary steam engines to power their mills. This new technology enabled them to build factories in the nation's largest cities, taking advantage of urban concentrations of inexpensive labor, good transportation networks, and eager customers.

40. What is the passage mainly about?  
 (A) The difficulties of industrialization in North America  
 (B) The influence of changes in manufacturing on the growth of urban centers  
 (C) The rapid speed of industrialization in North America  
 (D) Improved ways of organizing the manufacturing of goods
41. The word "boosted" in line 3 is closest in meaning to  
 (A) ensured (B) raised (C) arranged (D) discouraged
42. The word "scope" in line 9 is closest in meaning to  
 (A) value (B) popularity (C) extent (D) diversity
43. The author mentions the shoe industry in the second paragraph to provide an example of how  
 (A) entrepreneurs increased output by using an extended outwork system  
 (B) entrepreneurs used technological improvements to increase output  
 (C) rural workers responded to "shoe bosses"  
 (D) changes in the outwork system improved the quality of shoes
44. All of the following are mentioned as effects of changes in the shoe industry during the 1820's and 1830's EXCEPT  
 (A) an increase in the worker's dependence on entrepreneurs  
 (B) an increase in the wages paid to journeymen shoemakers  
 (C) a decline in the workers ability to control the speed of production  
 (D) a decrease in the price of shoes
45. All of the following are true of the outwork system EXCEPT  
 (A) It involved stages of production.  
 (B) It was more efficient than the systems used before 1790.  
 (C) It made many employers less powerful than they had been before.  
 (D) It did not necessarily involve any technological improvements.
46. The word "prolific" in line 22 is closest in meaning to  
 (A) efficient (B) productive (C) self-employed (D) progressive
47. According to the passage, how did later mills differ from the mills built by Oliver Evans?  
 (A) They were located away from large cities.  
 (B) They used new technology to produce power.  
 (C) They did not allow flour to cool before it was placed in Barrels.  
 (D) They combined technology with the outwork system.
48. The word "it" in line 24 refers to  
 (A) water power (B) machinery (C) grain (D) mill
49. The passage mentions which of the following as a result of improvements in factory machinery?  
 (A) It became easier for factory owners to find workers and customers.  
 (B) Manufacturers had to employ more highly skilled workers.



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- (C) The amount of power required for factories operate was reduced.
- (D) Factories could operate more than one engine at a time.

**50.** The word "eager" in line 29 is closest in meaning to

- (A) wealthy
- (B) knowledgeable
- (C) regular
- (D) enthusiastic

# PRACTICE TEST 14

## January 2000

### Questions 1-10

As Philadelphia grew from a small town into a city in the first half of the eighteenth century, it became an increasingly important marketing center for a vast and growing agricultural hinterland. Market days saw the crowded city even more crowded, as  
*Line* farmers from within a radius of 24 or more kilometers brought their sheep, cows, pigs,  
(5) vegetables, cider, and other products for direct sale to the townspeople. The High Street Market was continuously enlarged throughout the period until 1736, when it reached from Front Street to Third. By 1745 New Market was opened on Second Street between Pine and Cedar. The next year the Callowhill Market began operation.

Along with market days, the institution of twice-yearly fairs persisted in  
(10) Philadelphia even after similar trading days had been discontinued in other colonial cities. The fairs provided a means of bringing handmade goods from outlying places to would-be buyers in the city. Linens and stockings from Germantown, for example, were popular items.

Auctions were another popular form of occasional trade. Because of the  
(15) competition, retail merchants opposed these as well as the fairs. Although governmental attempts to eradicate fairs and auctions were less than successful, the ordinary course of economic development was on the merchants' side, as increasing business specialization became the order of the day. Export merchants became differentiated from their importing counterparts, and specialty shops began to appear in  
(20) addition to general stores selling a variety of goods.

One of the reasons Philadelphia's merchants generally prospered was because the surrounding area was undergoing tremendous economic and demographic growth. They did their business, after all, in the capital city of the province. Not only did they cater to the governor and his circle, but citizens from all over the colony came to the  
(25) capital for legislative sessions of the assembly and council and the meetings of the courts of justice.

1. What does the passage mainly discuss?  
(A) Philadelphia's agriculture importance  
(B) Philadelphia's development as a marketing center  
(C) The sale of imported goods in Philadelphia  
(D) The administration of the city of Philadelphia
2. It can be inferred from the passage that new markets opened in Philadelphia because  
(A) they provided more modern facilities than older markets  
(B) the High Street Market was forced to close  
(C) existing markets were unable to serve the growing population  
(D) farmers wanted markets that were closer to the farms.
3. The word "hinterland" in line 3 is closest in meaning to  
(A) tradition                      (B) association                      (C) produce                      (D) region
4. The word "it" in line 6 refers to  
(A) the crowded city                      (B) a radius  
(C) the High Street Market                      (D) the period
5. The word "persisted" in line 9 is closest in meaning to

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- (A) returned                      (B) started                      (C) declined                      (D) continued
6. According to the passage, fairs in Philadelphia were held  
(A) on the same day as market days                      (B) as often as possible  
(C) a couple of times a year                      (D) whenever the government allowed it
7. It can be inferred that the author mentions "Linens and stockings" in line 12 to show that they were items that  
(A) retail merchants were not willing to sell  
(B) were not available in the stores in Philadelphia  
(C) were more popular in Germantown than in Philadelphia  
(D) could easily be transported
8. The word "eradicate" in line 16 is closest in meaning to  
(A) eliminate                      (B) exploit                      (C) organize                      (D) operate
9. What does the author mean by stating in line 17 that "economic development was on the merchants' side"?  
(A) Merchants had a strong impact on economic expansion.  
(B) Economic forces allowed merchants to prosper.  
(C) Merchants had to work together to achieve economic independence  
(D) Specialty shops near large markets were more likely to be economically successful.
10. The word "undergoing" in line 22 is closest in meaning to  
(A) requesting                      (B) experiencing                      (C) repeating                      (D) including

**Questions 11-22**

Aviculturists, people who raise birds for commercial sale, have not yet learned how to simulate the natural incubation of parrot eggs in the wild. They continue to look for better ways to increase egg production and to improve chick survival rates.

- Line* When parrots incubate their eggs in the wild, the temperature and humidity of the  
(5) nest are controlled naturally. Heat is transferred from the bird's skin to the top portion of the eggshell, leaving the sides and bottom of the egg at a cooler temperature. This temperature gradient may be vital to successful hatching. Nest construction can contribute to this temperature gradient. Nests of loosely arranged sticks, rocks, or dirt are cooler in temperature at the bottom where the egg contacts the nesting material.  
(10) Such nests also act as humidity regulators by allowing rain to drain into the bottom sections of the nest so that the eggs are not in direct contact with the water. As the water that collects in the bottom of the nest evaporates, the water vapor rises and is heated by the incubating bird, which adds significant humidity to the incubation environment.  
(15) In artificial incubation programs, aviculturists remove eggs from the *nests* of parrots and incubate them under laboratory conditions. Most commercial incubators heat the eggs fairly evenly from top to bottom, thus ignoring the bird's method of natural incubation, and perhaps reducing the viability and survivability of the hatching chicks. When incubators are not used, aviculturists sometimes suspend wooden boxes outdoors  
(20) to use as nests in which to place eggs. In areas where weather can become cold after eggs are laid, it is very important to maintain a deep foundation of nesting material to act as insulator against the cold bottom of the box. If eggs rest against the wooden bottom in extremely cold weather conditions, they can become chilled to a point where the embryo can no longer survive. Similarly, these boxes should be protected from  
(25) direct sunlight to avoid high temperatures that are also fatal to the growing embryo.

Nesting material should be added in sufficient amounts to avoid both extreme temperature situations mentioned above and assure that the eggs have a soft, secure place to rest.

11. What is the main idea of the passage?  
 (A) Nesting material varies according to the parrots' environment.  
 (B) Humidity is an important factor in incubating parrots' eggs.  
 (C) Aviculturists have constructed the ideal nest box for parrots.  
 (D) Wild parrots' nests provide information useful for artificial incubation.
12. The word "They" in line 2 refers to  
 (A) aviculturists (B) birds (C) eggs (D) rates
13. According to paragraph 2, when the temperature of the sides and bottom of the egg are cooler than the top, then  
 (A) there may be a good chance for successful incubation  
 (B) the embryo will not develop normally  
 (C) the incubating parent moves the egg to a new position.  
 (D) the incubation process is slowed down
14. According to paragraph 2, sticks, rocks, or dirt are used to  
 (A) soften the bottom of the nest for the newly hatched chick  
 (B) hold the nest together  
 (C) help lower the temperature at the bottom of the nest  
 (D) make the nest bigger
15. According to paragraph 2, the construction of the nest allows water to  
 (A) provide a beneficial source of humidity in the nest  
 (B) loosen the materials at the bottom of the nest  
 (C) keep the nest in a clean condition  
 (D) touch the bottom of the eggs
16. All of the following are part of a parrot's incubation method EXCEPT  
 (A) heating the water vapor as it rises from the bottom of the nest  
 (B) arranging nesting material at the bottom of the nest  
 (C) transferring heat from the parent to the top of the eggshell  
 (D) maintaining a constant temperature on the eggshell
17. The word "suspend" in line 19 is closest in meaning to  
 (A) build (B) paint (C) hang (D) move
18. The word "fatal" in line 25 is closest in meaning to  
 (A) close (B) deadly (C) natural (D) hot
19. The word "secure" in line 27 is closest in meaning to  
 (A) fresh (B) dry (C) safe (D) warm
20. According to paragraph 3, a deep foundation of nesting material provides  
 (A) a constant source of humidity (B) a strong nest box  
 (C) more room for newly hatched chicks (D) protection against cold weather
21. Which of the following is a problem with commercial incubators?  
 (A) They lack the natural temperature changes of the outdoors.  
 (B) They are unable to heat the eggs evenly  
 (C) They do not transfer heat to the egg in the same way the parent bird does.  
 (D) They are expensive to operate.

22. Which of the following terms is defined in the passage?

- (A) Aviculturists (line 1) (B) Gradient (line 8)  
(C) Incubation (line 15) (D) Embryo (line 24)

**Questions 23-33**

The mineral particles found in soil range in size from microscopic clay particles to large boulders. The most abundant particles – sand, silt, and clay – are the focus of examination in studies of soil texture. *Texture* is the term used to describe the

Line composite sizes of particles in a soil sample, typically several representative handfuls.

(5) To measure soil texture, the sand, silt, and clay particles are sorted out by size and weight. The weights of each size are then expressed as a percentage of the sample weight.

In the field, soil texture can be estimated by extracting a handful of sod and squeezing the damp soil into three basic shapes; (1) cast, a lump formed by squeezing  
(10) a sample in a clenched fist; (2) thread, a pencil shape formed by rolling soil between the palms; and (3) ribbon, a flatfish shape formed by squeezing a small sample between the thumb and index finger. The behavioral characteristics of the soil when molded into each of these shapes, if they can be formed at all, provides the basis for a general textural classification. The behavior of the soil in the hand test is determined by the  
(15) amount of clay in the sample. Clay particles are highly cohesive, and when dampened, behave as a plastic. Therefore the higher the clay content in a sample, the more refined and durable the shapes into which it can be molded.

Another method of determining soil texture involves the use of devices called sediment sieves, screens built with a specified mesh size. When the soil is filtered  
(20) through a group of sieves, each with a different mesh size, the particles become grouped in corresponding size categories. Each category can be weighed to make a textural determination. Although sieves work well for silt, sand, and larger particles, they are not appropriate for clay particles. Clay is far too small to sieve accurately; therefore, in soils with a high proportion of clay, the fine particles are measured on the  
(25) basis of their settling velocity when suspended in water. Since clays settle so slowly, they are easily segregated from sand and silt. The water can be drawn off and evaporated, leaving a residue of clay, which can be weighed.

23. What does the passage mainly discuss?

- (A) Characteristics of high quality soil  
(B) Particles typically found in most soils  
(C) How a high clay content affects the texture of soil  
(D) Ways to determine the texture of soil

24. The author mentions "several representative handfuls" in line 4 in order to show

- (A) the range of soil samples  
(B) the process by which soil is weighed  
(C) the requirements for an adequate soil sample  
(D) how small soil particles are

25. The phrase "sorted out" in line 5 is closest in meaning to

- (A) mixed (B) replaced (C) carried (D) separated

26. It can be inferred that the names of the three basic shapes mentioned in paragraph 2 reflect

- (A) the way the soil is extracted (B) the results of squeezing the soil

- (C) the need to check more than one handful      (D) the difficulty of forming different shapes
27. The word "dampened" in line 15 is closest in meaning to  
 (A) damaged      (B) stretched      (C) moistened      (D) examined
28. Which of the following can be inferred from the passage about a soil sample with little or no clay in it?  
 (A) It is not very heavy.      (B) It may not hold its shape when molded.  
 (C) Its shape is durable      (D) Its texture cannot be classified
29. The word "they" in line 23 refers to  
 (A) categories      (B) sieves      (C) larger particles      (D) clay particles
30. It can be inferred from the passage that the sediment sieve has an advantage over the hand test in determining soil texture because  
 (A) using the sieve takes less time      (B) the sieve can measure clay  
 (C) less training is required to use the sieve      (D) the sieve allows for a more exact measure
31. During the procedure described in paragraph 3, when clay particles are placed into water they  
 (A) stick to the sides of the water container      (B) take some time to sink to the bottom  
 (C) separate into different sizes      (D) dissolve quickly
32. The word "fine" in line 24 is closest in meaning to  
 (A) tiny      (B) many      (C) excellent      (D) various
33. All of the following words are defined in the passage EXCEPT  
 (A) texture (line 3)      (B) ribbon (line 11)  
 (C) sediment sieves (line 19)      (D) evaporated (line 27)

### Questions 34-43

A number of factors related to the voice reveal the personality of the speaker.

- The first is the broad area of communication, which includes imparting information by use of language, communicating with a group or an individual, and specialized  
*Line* communication through performance. A person conveys thoughts and ideas through  
 (5) choice of words, by a tone of voice that is pleasant or unpleasant, gentle or harsh, by the rhythm that is inherent within the language itself, and by speech rhythms that are flowing and regular or uneven and hesitant, and finally, by the pitch and melody of the utterance. When speaking before a group, a person's tone may indicate unsureness or fright, confidence or calm. At interpersonal levels, the tone may reflect ideas and  
 (10) feelings over and above the words chosen, or may belie them. Here the conversant's tone can consciously or unconsciously reflect intuitive sympathy or antipathy, lack of concern or interest, fatigue, anxiety, enthusiasm or excitement, all of which are usually discernible by the acute listener. Public performance is a manner of communication that is highly specialized with its own techniques for obtaining effects by voice and /or  
 (15) gesture. The motivation derived from the text, and in the case of singing, the music, in combination with the performer's skills, personality, and ability to create empathy will determine the success of artistic, political, or pedagogic communication.

- Second, the voice gives psychological clues to a person's self-image, perception of others, and emotional health. Self-image can be indicated by a tone of voice that is  
 (20) confident, pretentious, shy, aggressive, outgoing, or exuberant, to name only a few personality traits. Also the sound may give a clue to the facade or mask of that person,

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for example, a shy person hiding behind an overconfident front. How a speaker perceives the listener's receptiveness, interest, or sympathy in any given conversation can drastically alter the tone of presentation, by encouraging or discouraging the speaker. Emotional health is evidenced in the voice by free and melodic sounds of the happy, by constricted and harsh sound of the angry, and by dull and lethargic qualities of the depressed

34. What does the passage mainly discuss?  
(A) The function of the voice in performance  
(B) The connection between voice and personality  
(C) Communication styles  
(D) The production of speech
35. What does the author mean by stating that, "At interpersonal levels, tone may reflect ideas and feelings over and above the words chosen" (lines 9-10)?  
(A) Feelings are expressed with different words than ideas are.  
(B) The tone of voice can carry information beyond the meaning of words.  
(C) A high tone of voice reflects an emotional communication.  
(D) Feelings are more difficult to express than ideas.
36. The word "Here" in line 10 refers to  
(A) interpersonal interactions  
(B) the tone  
(C) ideas and feelings  
(D) words chosen
37. The word "derived" in line 15 is closest in meaning to  
(A) discussed  
(B) prepared  
(C) registered  
(D) obtained
38. Why does the author mention "artistic, political, or pedagogic communication" in line 17?  
(A) As examples of public performance  
(B) As examples of basic styles of communication  
(C) To contrast them to singing  
(D) To introduce the idea of self-image
39. According to the passage, an exuberant tone of voice, may be an indication of a person's  
(A) general physical health  
(B) personality  
(C) ability to communicate  
(D) vocal quality
40. According to the passage, an overconfident front may hide  
(A) hostility  
(B) shyness  
(C) friendliness  
(D) strength
41. The word "drastically" in line 24 is closest in meaning to  
(A) frequently  
(B) exactly  
(C) severely  
(D) easily
42. The word "evidenced" in line 25 is closest in meaning to  
(A) questioned  
(B) repeated  
(C) indicated  
(D) exaggerated
43. According to the passage, what does a constricted and harsh voice indicate?  
(A) Lethargy  
(B) Depression  
(C) Boredom  
(D) Anger

**Questions 44-50**

As the twentieth century began, the importance of formal education in the United States increased. The frontier had mostly disappeared and by 1910 most Americans lived in towns and cities. Industrialization and the bureaucratization of economic life combined with a new emphasis upon credentials and expertise to make schooling increasingly important for economic and social mobility. Increasingly, too, schools

were viewed as the most important means of integrating immigrants into American society.

- The arrival of a great wave of southern and eastern European immigrants at the turn of the century coincided with and contributed to an enormous expansion of formal schooling. By 1920 schooling to age fourteen or beyond was compulsory in most states, and the school year was greatly lengthened. Kindergartens, vacation schools, extracurricular activities, and vocational education and counseling extended the influence of public schools over the lives of students, many of whom in the larger industrial cities were the children of immigrants. Classes for adult immigrants were sponsored by public schools, corporations, unions, churches, settlement houses, and other agencies.

- Reformers early in the twentieth century suggested that education programs should suit the needs of specific populations. Immigrant women were one such population. Schools tried to educate young women so they could occupy productive places in the urban industrial economy, and one place many educators considered appropriate for women was the home.

- Although looking after the house and family was familiar to immigrant women, American education gave homemaking a new definition. In preindustrial economies, homemaking had meant the production as well as the consumption of goods, and it commonly included income-producing activities both inside and outside the home, in the highly industrialized early-twentieth-century United States, however, overproduction rather than scarcity was becoming a problem. Thus, the ideal American homemaker was viewed as a consumer rather than a producer. Schools trained women to be consumer homemakers cooking, shopping, decorating, and caring for children "efficiently" in their own homes, or if economic necessity demanded, as employees in the homes of others. Subsequent reforms have made these notions seem quite out-of-date.

44. It can be inferred from paragraph 1 that one important factor in the increasing importance of education in the United States was
- (A) the growing number of schools in frontier communities
  - (B) an increase in the number of trained teachers
  - (C) the expanding economic problems of schools
  - (D) the increased urbanization of the entire country
45. The word "means" in line 6 is closest in meaning to
- (A) advantages
  - (B) probability
  - (C) method
  - (D) qualifications
46. The phrase "coincided with" in line 9 is closest in meaning to
- (A) was influenced by
  - (B) happened at the same time as
  - (C) began to grow rapidly
  - (D) ensured the success of
47. According to the passage, one important change in United States education by the 1920's was that
- (A) most places required children to attend school
  - (B) the amount of time spent on formal education was limited
  - (C) new regulations were imposed on nontraditional education
  - (D) adults and children studied in the same classes
48. Vacation schools and extracurricular activities are mentioned in lines 11-12 to illustrate
- (A) alternatives to formal education provided by public schools
  - (B) the importance of educational changes
  - (C) activities that competed to attract new immigrants to their programs.



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(D) the increased impact of public schools on students.

**49.** According to the passage, early-twentieth century education reformers believed that

(A) different groups needed different kinds of education

(B) special programs should be set up in frontier communities to modernize them

(C) corporations and other organizations damaged educational progress

(D) more women should be involved in education and industry

**50.** The word "it" in line 24 refers to

(A) consumption

(B) production

(C) homemaking

(D) education

# ANSWER KEY

## PRACTICE TEST 01

ACDDA ABCDB CACBC ABBDA DCBAB CCACD BBDCC AADBC AAAAD BCBC

## PRACTICE TEST 02

DACDB DACCA BCDCC ADADB CADBA DABAA ACADB CACCB AACDD BCDAC

## PRACTICE TEST 03

DAABA DDBAB CDBC BDCBBA BDACB DDBAA DDABC DCBBA DCDBC CADCB

## PRACTICE TEST 04

CDACD BDABC DBADB DCACB DAACA DBCBD CDDBD BCBAB AACCB CCDD

## PRACTICE TEST 05

ABCCB CABDB BADBD ACCBA DABCC CDCCC BADCC DCCBD BCCCA DBAAD

## PRACTICE TEST 06

BDBCC ACAAC ABCDA AABDB BACCD BBBCB BDCCC ADBDA CBCDA ABACC

## PRACTICE TEST 07

ABCCC DDAAB DACBD ADCDB CDCDA ADABC ABBDB DCABD BCDAD CCCDC

## PRACTICE TEST 08

BABDB CDADC DAADC CDADB CBDDBA DDCCB DADBD ABBCD DCCBC ABBAC

## PRACTICE TEST 09

ACBBA ACDBB ABBDA DDBBB CBDCA ABDBC CADAD ACBDC DCBDB CBACC

## PRACTICE TEST 10

BCADB DADDB CADAD CDDBC ADCDB DABDA BCDAC BDDAA CBBA DCDCC

## PRACTICE TEST 11

AABDA ADDBD CCBDC ABCBD BACAD DCACA CBADD CCABD BBDCC DCDCC

## PRACTICE TEST 12

ACBDA ADBDC BDCBA BDCBC ABCBC BDACA ADCBC BDDCC AACBD BBCAD

## PRACTICE TEST 13

ADCBB DACDD CABCA ACADC BDABA ADBDC CAAAB DDDBD BCABC BBCAD

## PRACTICE TEST 14

BCDCD CBABB DAACA DCBCD CADAD BCBBD BADBB ADABB CCDDC BADAC

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# PRACTICE TEST 15

## May 2000

### Question 1-9

The canopy, the upper level of the trees in the rain forest, holds a plethora of climbing mammals of moderately large size, which may include monkeys, cats, civets, and porcupines. Smaller species, including such rodents as mice and small squirrels, are not as prevalent overall in high tropical canopies as they are in most habitats globally.

(5) Small mammals, being warm blooded, suffer hardship in the exposed and turbulent environment of the uppermost trees. Because a small body has more surface area per unit of weight than a large one of similar shape, it gains or loses heat more swiftly. Thus, in the trees, where shelter from heat and cold may be scarce and conditions may fluctuate, a small mammal may have trouble maintaining its body temperature.

(10) Small size makes it easy to scramble among twigs and branches in the canopy for insects, flowers, or fruit, but small mammals are surpassed, in the competition for food, by large ones that have their own tactics for browsing among food-rich twigs. The weight of a gibbon (a small ape) hanging below a branch arches the terminal leaves down so that fruit-bearing foliage drops toward the gibbon's face. Walking or leaping species of a similar or even larger size access the outer twigs either by snapping off and retrieving the whole branch or by clutching stiff branches with the feet or tail and plucking food with their hands.

(20) Small climbing animals may reach twigs readily, but it is harder for them than for large climbing animals to cross the wide gaps from one tree crown to the next that typify the high canopy. A macaque or gibbon can hurl itself farther than a mouse can: it can achieve a running start, and it can more effectively use a branch as a springboard, even bouncing on a climb several times before jumping. The forward movement of a small animal is seriously reduced by the air friction against the relatively large surface area of its body.

(25) Finally, for the many small mammals that supplement their insect diet with fruits or seeds an inability to span open gaps between tree crowns may be problematic, since trees that yield these foods can be sparse.

1. The passage answers which of the following questions?

- (A) How is the rain forest different from other habitats?
- (B) How does an animal's body size influence an animal's need for food?
- (C) Why does the rain forest provide an unusual variety of food for animals?
- (D) Why do large animals tend to dominate the upper canopy of the rain forest?

2. Which of the following animals is less common in the upper canopy than in other environments?

- (A) Monkeys
- (B) Cats
- (C) Porcupines
- (D) Mice

3. The word "they" in line 4 refers to

- (A) trees
- (B) climbing mammals of moderately large size
- (C) smaller species
- (D) high tropical canopies

4. According to paragraph 2, which of the following is true about the small mammals in the rain forest?

- (A) They have body shapes that are adapted to life in the canopy.
- (B) They prefer the temperature and climate of the canopy to that of other environments.
- (C) They have difficulty with the changing conditions in the canopy.
- (D) They use the trees of the canopy for shelter from heat and cold.

5. In discussing animal size in paragraph 3, the author indicates that  
(A) small animals require proportionately more food than larger animals do  
(B) a large animal's size is an advantage in obtaining food in the canopy  
(C) small animals are often attacked by large animals in the rain forest  
(D) small animals and large animals are equally adept at obtaining food in the canopy
6. The word "typify" in line 19 is closest in meaning to  
(A) resemble (B) protect (C) characterize (D) divide
7. According to paragraph 4, what makes jumping from one tree crown to another difficult for small mammals?  
(A) Air friction against the body surface (B) The thickness of the branches  
(C) The dense leaves of the tree crown (D) The inability to use the front feet as hands
8. The word "supplement" in line 24 is closest in meaning to  
(A) control (B) replace (C) look for (D) add to
9. Which of the following terms is defined in the passage?  
(A) canopy(line 1) (B) warm blooded(line 5)  
(C) terminal leaves(line13) (D) springboard(line 21)

### Question 10-19

During the seventeenth and eighteenth centuries, almost nothing was written about the contributions of women during the colonial period and the early history of the newly formed United States. Lacking the right to vote and absent from the seats of power, women  
*Line* were not considered an important force in history. Anne Bradstreet wrote some significant  
(5) poetry in the seventeenth century, Mercy Otis Warren produced the best contemporary history of the American Revolution, and Abigail Adams penned important letters showing she exercised great political influence over her husband, John, the second President of the United States. But little or no notice was taken of these contributions. During these centuries, women remained invisible in history books.

(10) Throughout the nineteenth century, this lack of visibility continued, despite the efforts of female authors writing about women. These writers, like most of their male counterparts, were amateur historians. Their writings were celebratory in nature, and they were uncritical in their selection and use of sources.

During the nineteenth century, however, certain feminists showed a keen sense of  
(15) history by keeping records of activities in which women were engaged. National, regional, and local women's organizations compiled accounts of their doings. Personal correspondence, newspaper clippings, and souvenirs were saved and stored. These sources from the core of the two greatest collections of women's history in the United States one at the Elizabeth and Arthur Schlesinger Library at Radcliffe College, and the other the Sophia  
(20) Smith Collection at Smith College. Such sources have provided valuable materials for later Generations of historians.

Despite the gathering of more information about ordinary women during the nineteenth Century, most of the writing about women conformed to the "great women" theory of History, just as much of mainstream American history concentrated on "great men." To  
(25) demonstrate that women were making significant contributions to American life, female authors singled out women leaders and wrote biographies, or else important women produced their autobiographies. Most of these leaders were involved in public life as reformers, activists working for women's right to vote, or authors, and were not

- representative at all of the great of ordinary woman. The lives of ordinary people  
(30) continued, generally, to be untold in the American histories being published.
10. What does the passage mainly discuss?  
 (A) The role of literature in early American histories  
 (B) The place of American women in written histories  
 (C) The keen sense of history shown by American women  
 (D) The “great women” approach to history used by American historians
11. The word “contemporary” in line 5 means that the history was  
 (A) informative (B) written at that time  
 (C) thoughtful (D) faultfinding
12. In the first paragraph, Bradstreet, Warren, and Adams are mentioned to show that  
 (A) a woman’s status was changed by marriage  
 (B) even the contributions of outstanding women were ignored  
 (C) only three women were able to get their writing published  
 (D) poetry produced by women was more readily accepted than other writing by women
13. The word “celebratory” in line 12 means that the writings referred to were  
 (A) related to parties (B) religious (C) serious (D) full of praise
14. The word “they” in line 12 refers to  
 (A) efforts (B) authors (C) counterparts (D) sources
15. In the second paragraph, what weakness in nineteenth-century histories does the author point out?  
 (A) They put too much emphasis on daily activities  
 (B) They left out discussion of the influence of money on politics.  
 (C) The sources of the information they were based on were not necessarily accurate.  
 (D) They were printed on poor-quality paper.
16. On the basis of information in the third paragraph, which of the following would most likely have been collected by nineteenth-century feminist organizations?  
 (A) Newspaper accounts of presidential election results  
 (B) Biographies of John Adams  
 (C) Letters from a mother to a daughter advising her how to handle a family problem  
 (D) Books about famous graduates of the country’s first college
17. What use was made of the nineteenth-century women’s history materials in the Schlesinger Library and the Sophia Smith Collection?  
 (A) They were combined and published in a multivolume encyclopedia  
 (B) They formed the basis of college courses in the nineteenth century.  
 (C) They provided valuable information for twentieth—century historical researchers.  
 (D) They were shared among women’s colleges throughout the United States.
18. In the last paragraph, the author mentions all of the following as possible roles of nineteenth-century “great women” EXCEPT  
 (A) authors (B) reformers  
 (C) activists for women’s rights (D) politicians
19. The word “representative” in line 29 is closest in meaning to  
 (A) typical (B) satisfied (C) supportive (D) distinctive

**Question 20-29**

The end of the nineteenth century and the early years of the twentieth century were marked by the development of an international Art Nouveau style, characterized by sinuous lines, floral and vegetable motifs, and soft evanescent coloration. The Art Nouveau style was an eclectic one, bringing together elements of Japanese art, motifs of ancient cultures, and natural forms. The glass objects of this style were elegant in outline, although often deliberately distorted, with pale or iridescent surfaces. A favored device of the style was to imitate the iridescent surface seen on ancient glass that had been buried. Much of the Art Nouveau glass produced during the years of its greatest popularity had been generically termed "art glass." Art glass was intended for decorative purposes and relied for its effect on carefully chosen color combinations and innovative techniques.

France produced a number of outstanding exponents of the Art Nouveau style; among the most celebrated was Emile Galle (1846-1904). In the United States, Louis Comfort Tiffany (1843-1933) was the most noted exponent of this style, producing a great variety of glass forms and surfaces, which were widely copied in their time and are highly prized today. Tiffany was a brilliant designer, successfully combining ancient Egyptian, Japanese, and Persian motifs.

The Art Nouveau style was a major force in the decorative arts from 1895 until 1915, although its influence continued throughout the mid-1920's. It was eventually to be overtaken by a new school of thought known as Functionalism that had been present since the turn of the century. At first restricted to a small avant-garde group of architects and designers, Functionalism emerged as the dominant influence upon designers after the First World War. The basic tenet of the movement—that function should determine form—was not a new concept. Soon a distinct aesthetic code evolved: form should be simple, surfaces plain, and any ornament should be based on geometric relationships. This new design concept, coupled with the sharp postwar reactions to the styles and conventions of the preceding decades, created an entirely new public taste which caused Art Nouveau types of glass to fall out of favor. The new taste demanded dramatic effects of contrast, stark outline and complex textural surfaces.

20. What does paragraph 1 mainly discuss?  
(A) Design elements in the Art Nouveau style  
(B) The popularity of the Art Nouveau style  
(C) Production techniques for art glass  
(D) Color combinations typical of the Art Nouveau style
21. The word "one" in line 4 refers to  
(A) century                      (B) development                      (C) style                      (D) coloration
22. Para.1 mentions that Art Nouveau glass was sometimes similar to which aspect of ancient buried glass  
(A) The distortion of the glass                      (B) The appearance of the glass surface  
(C) The shapes of the glass objects                      (D) The size of the glass objects
23. What is the main purpose of paragraph 2?  
(A) To compare different Art Nouveau styles  
(B) To give examples of famous Art Nouveau artists  
(C) To explain why Art Nouveau glass was so popular in the United States  
(D) To show the impact Art Nouveau had on other cultures around the world



24. The word "prized" in line 14 is closest in meaning to  
 (A) valued (B) universal (C) uncommon (D) preserved
25. The word "overtaken" in line 19 is closest in meaning to  
 (A) surpassed (B) inclined (C) expressed (D) applied
26. What does the author mean by stating that "function should determine form" (line 22)?  
 (A) A useful object should not be attractive.  
 (B) The purpose of an object should influence its form.  
 (C) The design of an object is considered more significant than its function.  
 (D) The form of an object should not include decorative elements.
27. It can be inferred from the passage that one reason Functionalism became popular was that it  
 (A) clearly distinguished between art and design  
 (B) appealed to people who liked complex painted designs  
 (C) reflected a common desire to break from the past  
 (D) was easily interpreted by the general public
28. Paragraph 3 supports which of the following statements about Functionalism?  
 (A) Its design concept avoided geometric shapes.  
 (B) It started on a small scale and then spread gradually.  
 (C) It was a major force in the decorative arts before the First World War.  
 (D) It was not attractive to architects all designers.
29. According to the passage, an object made in the Art Nouveau style would most likely include  
 (A) a flowered design (B) bright colors  
 (C) modern symbols (D) a textured surface

### Question 30-40

During most of their lives, surge glaciers behave like normal glaciers, traveling perhaps only a couple of inches per day. However, at intervals of 10 to 100 years, these glaciers move forward up to 100 times faster than usual. The surge often progresses along a glacier  
*line* like a great wave, proceeding from one section to another. Subglacial streams of meltwater  
 (5) water pressure under the glacier might lift it off its bed, overcoming the friction between ice and rock, thus freeing the glacier, which rapidly slides downhill. Surge glaciers also might be influenced by the climate, volcanic heat, or earthquakes. However, many of these glaciers exist in the same area as normal glaciers, often almost side by side.

- (10) Some 800 years ago, Alaska's Hubbard Glacier advanced toward the sea, retreated, and advanced again 500 years later. Since 1895, this seventy-mile-long river of ice has been flowing steadily toward the Gulf of Alaska at a rate of approximately 200 feet per year. In June 1986, however, the glacier surged ahead as much as 47 feet a day. Meanwhile, a western tributary, called Valerie Glacier, advanced up to 112 feet a day. Hubbard's surge  
 (15) closed off Russell Fiord with a formidable ice dam, some 2,500 feet wide and up to 800 feet high, whose caged waters threatened the town of Yakutat to the south.

About 20 similar glaciers around the Gulf of Alaska are heading toward the sea. If enough surge glaciers reach the ocean and raise sea levels, West Antarctic ice shelves could rise off the seafloor and become adrift. A flood of ice would then surge into the Southern  
 (20) Sea. With the continued rise in sea level, more ice would plunge into the ocean, causing sea levels to rise even higher, which in turn would release more ice and set in motion a vicious

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cycle. The additional sea ice floating toward the tropics would increase Earth's Albedo and lower global temperatures, perhaps enough to initiate a new ice age. This situation appears to have occurred at the end of the last warm interglacial (the time between glacations),  
(25) called the Sangamon, when sea ice cooled the ocean dramatically, spawning the beginning of the Ice Age.

30. What is the main topic of the passage?  
(A) The classification of different types of surge glaciers  
(B) The causes and consequences of surge glaciers  
(C) The definition of a surge glacier  
(D) The history of a particular surge glacier
31. The word "intervals" in line 2 is closest in meaning to  
(A) records (B) speeds (C) distances (D) periods
32. The author compares the surging motion of a surge glacier to the movement of a  
(A) fish (B) wave (C) machine (D) boat
33. Which of the following does the author mention as a possible cause of surging glaciers?  
(A) The decline in sea levels  
(B) The occurrence of unusually large ocean waves  
(C) The shifting Antarctic ice shelves  
(D) The pressure of meltwater underneath the glacier
34. The word "freeing" in line 7 is closest in meaning to  
(A) pushing (B) releasing (C) strengthening (D) draining
35. According to the passage, the Hubbard Glacier  
(A) moves more often than the Valerie Glacier  
(B) began movement toward the sea in 1895  
(C) is 800 feet wide  
(D) has moved as fast as 47 feet per day
36. Yakutat is the name of  
(A) an Alaskan town (B) the last ice age  
(C) a surge glacier (D) an Antarctic ice shelf
37. The word "plunge" in line 20 is closest in meaning to  
(A) drop (B) extend (C) melt (D) drift
38. The term "vicious cycle" in lines 21-22 refers to the  
(A) movement pattern of surge glaciers  
(B) effect surge glaciers could have on the temperature of tropical areas  
(C) effect that repeated rising sea levels might have on glacial ice  
(D) constant threat surge glaciers could pose to the Gulf of Alaska
39. The author provides a definition for which of the following terms?  
(A) Tributary (line 14) (B) Ice dam (line 15)  
(C) Albedo (line 22) (D) Interglacial (line 24)
40. Which of the following statements is supported by the passage?  
(A) The movement of surge glaciers can be prevented.  
(B) The next ice age could be caused by surge glaciers.  
(C) Surge glaciers help to support Antarctic ice shelves.  
(D) Normal glaciers have little effect on Earth's climate.

**Question 41-50**

According to sociologists, there are several different ways in which a person may become recognized as the leader of a social group in the United States. In the family, traditional cultural patterns confer leadership on one or both of the parents. In other cases, such as friendship groups, one or more persons may gradually emerge as leaders, although there is no formal process of selection. In larger groups, leaders are usually chosen formally through election or recruitment.

Although leaders are often thought to be people with unusual personal ability, decades of research have failed to produce consistent evidence that there is any category of "natural leaders." It seems that there is no set of personal qualities that all leaders have in common; rather, virtually any person may be recognized as a leader if the person has qualities that meet the needs of that particular group.

Furthermore, although it is commonly supposed that social groups have a single leader, research suggests that there are typically two different leadership roles that are held by different individuals. Instrumental leadership is leadership that emphasizes the completion of tasks by a social group. Group members look to instrumental leaders to "get things done." Expressive leadership, on the other hand, is leadership that emphasizes the collective well-being of a social group's member. Expressive leaders are less concerned with the overall goals of the group than with providing emotional support to group members and attempting to minimize tension and conflict among them. Group members expect expressive leaders to maintain stable relationships within the group and provide support to individual members.

Instrumental leaders are likely to have a rather secondary relationship to other group members. They give orders and may discipline group members who inhibit attainment of the group's goals. Expressive leaders cultivate a more personal or primary relationship to others in the group. They offer sympathy when someone experiences difficulties or is subjected to discipline, are quick to lighten a serious moment with humor, and try to resolve issues that threaten to divide the group. As the differences in these two roles suggest, expressive leaders generally receive more personal affection from group members; instrumental leaders, if they are successful in promoting group goals, may enjoy a more distant respect.

41. What does the passage mainly discuss?

- (A) The problems faced by leaders
- (B) How leadership differs in small and large groups
- (C) How social groups determine who will lead them
- (D) The role of leaders in social groups

42. The passage mentions all of the following ways by which people can become leaders EXCEPT

- (A) recruitment
- (B) formal election process
- (C) specific leadership training
- (D) traditional cultural patterns

43. In mentioning "natural leaders" in lines 8-9, the author is making the point that

**PRACTICE TEST 15 – May 2000**

- (A) few people qualify as “natural leaders”
- (B) there is no proof that “natural leaders” exist
- (C) “natural leaders” are easily accepted by the members of a social group
- (D) “natural leaders” share a similar set of characteristics

**44.** Which of the following statements about leadership can be inferred from paragraph 2?

- (A) A person who is an effective leader of a particular group may not be an effective leader in another group.
- (B) Few people succeed in sharing a leadership role with another person.
- (C) A person can best learn how to be an effective leader by studying research on leadership.
- (D) Most people desire to be leaders but can produce little evidence of their qualifications.

**45.** The passage indicates that instrumental leaders generally focus on

- (A) ensuring harmonious relationships
- (B) sharing responsibility with group members
- (C) identifying new leaders
- (D) achieving a goal

**46.** The word “collective” in line 17 is closest in meaning to

- (A) necessary
- (B) typical
- (C) group
- (D) particular

**47.** The word “them” in line 19 refers to

- (A) expressive leaders
- (B) goals of the group
- (C) group members
- (D) tension and conflict

**48.** A “secondary relationship” mentioned in line 22 between a leader and the members of a group could best be characterized as

- (A) distant
- (B) enthusiastic
- (C) unreliable
- (D) personal

**49.** The word “resolve” in line 27 is closest in meaning to

- (A) avoid repeating
- (B) talk about
- (C) avoid thinking about
- (D) find a solution for

**50.** Paragraphs 3 and 4 organize the discussion of leadership primarily in term of

- (A) examples that illustrate a problem
- (B) cause and effect analysis
- (C) narration of events
- (D) comparison and contrast

# PRACTICE TEST 16

## August 2000

### Questions 1-8

Prehistoric mammoths have been preserved in the famous tar pits of Rancho La Brea (Brea is the Spanish word for tar) in what now the heart of Los Angeles, California. These tar pits have been known for centuries and were formerly mined for their natural asphalt, a black or brown petroleum-like substance. Thousands of tons were extracted before 1875, when it was first noticed that the tar contained fossil remains. Major excavations were undertaken that established the significance of this remarkable site. The tar pits were found to contain the remains of scores of species of animals from the last 30,000 years of the Ice Age.

Since then, over 100 tons of fossils, 1.5 million from vertebrates, 2.5 million from invertebrates, have been recovered, often in densely concentrated tangled masses. The creatures found range from insects and birds to giant ground sloth's, but a total of 17 proboscides (animal with a proboscis or long nose)- including mastodons and Columbian mammoths- have been recovered, most of them from Pit 9, the deepest bone-bearing deposit, which was excavated in 1914. Most of the fossils date to between 40,000 and 10,000 years ago.

The asphalt at La Brea seeps to the surface, especially in the summer, and forms shallow puddles that would often have been concealed by leaves and dust. Unwary animals would become trapped on these thin sheets of liquid asphalt, which are extremely sticky in warm weather. Stuck, the unfortunate beasts would die of exhaustion and hunger or fall prey to predators that often also became stuck.

As the animals decayed, more scavengers would be attracted and caught in their turn. Carnivores greatly outnumber herbivores in the collection: for every large herbivore, there is one saber-tooth cat, a coyote, and four wolves. The fact that some bones are heavily weathered shows that some bodies remained above the surface for weeks or months. Bacteria in the asphalt would have consumed some of the tissues other than bones, and the asphalt itself would dissolve what was left, at the same time impregnating and beautifully preserving the saturated bones, rendering them dark brown and shiny.

1. What aspect of the La Brea tar pits does the passage mainly discuss?  
(A) The amount of asphalt that was mined there  
(B) The chemical and biological interactions between asphalt and animals  
(C) The fossil remains that have been found there  
(D) Scientific methods of determining the age of tar pits
2. In using the phrase "the heart of Los Angeles" in line 2, the author is talking about the city's  
(A) beautiful design  
(B) central area  
(C) basic needs  
(D) supplies of natural asphalt
3. The word "noticed" in line 5 closest in meaning to  
(A) predicted  
(B) announced  
(C) corrected  
(D) observed
4. The word "tangled" in line 10 is closest in meaning to  
(A) buried beneath  
(B) twisted together  
(C) quickly formed  
(D) easily dated
5. The word "them" in line 13 refers to

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- (A) insects                      (B) birds                      (C) cloths                      (D) proboscideans
6. How many proboscideans have been found at the La Brea tar pits?  
(A) 9                      (B) 17                      (C) 1.5 million                      (D) 2.5 million
7. The word “concealed” in line 17 is closest in meaning to  
(A) highlighted                      (B) covered                      (C) transformed                      (D) contaminated
8. Why does the author mention animals such as coyotes and wolves in paragraph 4?  
(A) To give examples of animals that are classified as carnivores  
(B) To specify the animals found least commonly at La Brea  
(C) To argue that these animals were especially likely to avoid extinction.  
(D) To define the term “scavengers”

**Questions 9-19**

The principal difference between urban growth in Europe and in the American colonies was the slow evolution of cities in the former and their rapid growth in the latter. In Europe they grew over a period of centuries from town economies to their present] *Line*  
(5) urban structure. In North America, they started as wilderness communities and developed to mature urbanism’s in little more than a century.

In the early colonial day in North America, small cities sprang up along the Atlantic Coastline, mostly in what are now New America, small cities sprang up along the Atlantic United States and in the lower Saint Lawrence valley in Canada. This was natural because these areas were nearest England and France, particularly England, from which (10) most capital goods (assets such as equipment) and many consumer goods were imported. Merchandising establishments were, accordingly, advantageously located in port cities from which goods could be readily distributed to interior settlements. Here, too, were the favored locations for processing raw materials prior to export. Boston, Philadelphia, New York, Montreal, and other cities flourished, and, as the colonies grew, these cities (15) increased in importance.

This was less true in the colonial South, where life centered around large farms, known as plantations, rather than around towns, as was the case in the areas further north along the Atlantic coastline. The local isolation and the economic self-sufficiency of the plantations were antagonistic to the development of the towns. The plantations (20) maintained their independence because they were located on navigable streams and each had a wharf accessible to the small shipping of that day. In fact, one of the strongest factors in the selection of plantation land was the desire to have it front on a water highway.

When the United States became an independent nation in 1776, it did not have a single (25) city as large as 50,000 inhabitants, but by 1820 it had a city of more than 10,000 people, and by 1880 it had recorded a city of over one million. It was not until after 1823, after the mechanization of the spinning had weaving industries, that cities started drawing young people away from farms. Such migration was particularly rapid following the Civil War (1861-1865).

9. What does the passage mainly discuss?  
(A) Factors that slowed the growth of cities in Europe.  
(B) The evolution of cities in North America  
(C) Trade between North American and European cities  
(D) The effects of the United States’ independence on urban growth in New England.
10. The word “they” in line 4 refers to

- (A) North American colonies (B) cities  
(C) centuries (D) town economies
11. The passage compares early European and North American cities on the basis of which of the following?  
(A) Their economic success  
(B) The type of merchandise they exported  
(C) Their ability to distribute goods to interior settlements  
(D) The pace of their development
12. The word "accordingly" in line 11 is closest in meaning to  
(A) as usual (B) in contrast (C) to some degree (D) for that reason
13. According to the passage, early colonial cities were established along the Atlantic coastline of North America due to  
(A) an abundance of natural resources (B) financial support from colonial governments  
(C) proximity to parts of Europe (D) a favorable climate
14. The passage indicates that during colonial times, the Atlantic coastline cities prepared which of the following for shipment to Europe?  
(A) Manufacturing equipment (B) Capital goods  
(C) Consumer goods (D) Raw materials
15. According to the passage, all of the following aspects of the plantation system influenced the growth of southern cities EXCEPT the  
(A) location of the plantations  
(B) access of plantation owners to shipping  
(C) relationships between plantation residents and city residents  
(D) economic self-sufficiency of the plantation
16. It can be inferred from the passage that, in comparison with northern cities, most southern cities were  
(A) imagined (B) discovered (C) documented (D) planned
17. The word "recorded" in line 26 is closest in meaning to  
(A) imagined (B) discovered (C) documented (D) planned
18. The word "drawing" in line 27 is closest in meaning to  
(A) attracting (B) employing (C) instructing (D) representing
19. The passage mentions the period following the Civil War (line 28-29) because it was a time of  
(A) significant obstacles to industrial growth  
(B) decreased dependence on foreign trade  
(C) increased numbers of people leaving employment on farms  
(D) increased migration from northern states to southern states

## Questions 20-28

During the second half of the nineteenth century, the production of food and feed crops in the United States rose at an extraordinarily rapid rate. Corn production increased by four and a half times, hay by five times, oats and wheat by seven times. The most crucial factor behind this phenomenal upsurge in productivity was the widespread adoption of

(5) labor-saving machinery by northern farmers. By 1850 horse-drawn reaping machines that cut grain were being introduced into the major grain-growing regions of the country. Horse-powered threshing machines to separate the seeds from the plants were already in general use. However, it was the onset of the Civil War in 1861 that provided the great stimulus for the mechanization of northern agriculture. With much of the labor force

(10) inducted into the army and with grain prices on the rise, northern farmers rushed to avail

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themselves of the new labor-saving equipment. In 1860 there were approximately 80,000 reapers in the country; five years later there were 350,000.

- After the close of the war in 1865, machinery became ever more important in northern agriculture, and improved equipment was continually introduced. By 1880 a self-binding reaper had been perfected that not only cut the grain, but also gathered the stalks and bound them with twine. Threshing machines were also being improved and enlarged, and after 1870 they were increasingly powered by steam engines rather than by horses. Since steam-powered threshing machines were costly items—running from \$ 1,000 to \$4,000 — they were usually owned by custom thresher owners who then worked their way from farm to farm during the harvest season. “Combines” were also coming into use on the great wheat ranches in California and the Pacific Northwest. These ponderous machines — sometimes pulled by as many as 40 horses — reaped the grain, threshed it, and bagged it, all in one simultaneous operation.

- The adoption of labor-saving machinery had a profound effect upon the sale of agricultural operations in the northern states—allowing farmers to increase vastly their crop acreage. By the end of century, a farmer employing the new machinery could plant and harvest two and half times as much corn as a farmer had using hand methods 50 years before.

20. What aspect of farming in the United States in the nineteenth century does the Passage mainly discuss?  
(A) How labor-saving machinery increased crop Production  
(B) Why southern farms were not as successful as Successful as northern farms  
(C) Farming practices before the Civil War  
(D) The increase in the number of people farming
21. The word “crucial” in line 3 is closest in meaning to  
(A) obvious                      (B) unbelievable                      (C) important                      (D) desirable
22. The phrase “avail themselves” in lines 10-11 is closest in meaning to  
(A) take care                      (B) make use                      (C) get rid                      (D) do more
23. According to the passage, why was the Civil War a stimulus for mechanization?  
(A) The army needed more grain in order to feed the soldiers.  
(B) Technology developed for the war could also be used by farmers.  
(C) It was hoped that harvesting more grain would lower the price of grain.  
(D) Machines were needed to replace a disappearing labor force.
24. The passage supports which of the following statements about machinery after the Civil War?  
(A) Many farmers preferred not to use the new machinery.  
(B) Returning laborers replaced the use of machinery.  
(C) The use of farm machinery continued to increase.  
(D) Poor-quality machinery slowed the pace of crop production.
25. Combines and self-binding reapers were similar because each  
(A) could perform more than one function                      (B) required relatively little power to operate  
(C) was utilized mainly in California                      (D) required two people to operate
26. The word “they” in line 17 refers to  
(A) grain stalks                      (B) horses                      (C) steam engines                      (D) threshing machines
27. It can be inferred from the passage that most farmers did not own threshing machines because.  
(A) farmers did not know how to use the new machines  
(B) farmers had no space to keep the machines  
(C) thresher owner had chance to buy the machines before farmers did



(D) the machines were too expensive for every farmer to own

28. The word "ponderous" in line 21 is closest in meaning to  
 (A) advanced (B) heavy (C) complex (D) rapid

### Questions 29-39

The Native American peoples of the north Pacific Coast created a highly complex maritime culture as they invented modes of production unique to their special environment. In addition to their sophisticated technical culture, they also attained one of the most complex social organizations of any nonagricultural people in the world.

- (5) In a division of labor similar to that of the hunting peoples in the interior and among foraging peoples throughout the world, the men did most of the fishing, and the women processed the catch. Women also specialized in the gathering of the abundant shellfish that lived closer to shore. They collected oysters, crabs, sea urchins, mussels, abalone, and clams, which they could gather while remaining close to their children. The maritime
- (10) life harvested by the women not only provided food, but also supplied more of the raw materials for making tools than did fish gathered by the men. Of particular importance for the native tool than did the fish gathered by the men. Of particular made from the larger mussel shells, and a variety of cutting edges that could be made from other marine shells.
- (15) The women used their tools to process all of the fish and marine mammals brought in by the men. They cleaned the fish, and dried vast quantities of them for the winter. They sun-dried fish when practical, but in the rainy climate of the coastal area they also used smokehouses to preserve tons of fish and other seafood annually. Each product had its own peculiar characteristics that demanded a particular way of cutting or drying the meat,
- (20) and each task required its own cutting blades and other utensils.

After drying the fish, the women pounded some of them into fish meal, which was an easily transported food used in soups, stews, or other dishes to provide protein and thickening in the absence of fresh fish or while on long trips. The women also made a cheese-like substance from a mixture of fish and roe by aging it in storehouses or by burying it in wooden boxes or pits lined with rocks and tree leaves.

29. Which aspect of the lives of the Native Americans of the north Pacific Coast does the passage mainly discuss?  
 (A) Methods of food preservation  
 (B) How diet was restricted by the environment  
 (C) The contributions of women to the food supply  
 (D) Difficulties in establishing successful farms
30. The word "unique" in line 2 is closest in meaning to  
 (A) comprehensible (B) productive (C) intentional (D) particular
31. The word "attained" in line 3 is closest in meaning to  
 (A) achieved (B) modified (C) demanded (D) spread
32. It can be inferred from paragraph 1 that the social organization of many agricultural peoples is  
 (A) more complex than that of hunters and foragers  
 (B) less efficient than that of hunters and foragers  
 (C) more widespread than that of hunters and foragers  
 (D) better documented than that of hunters and foragers
33. According to the passage, what is true of the "division of labor" mentioned in line 5?

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- (A) It was first developed by Native Americans of the north Pacific Coast.  
(B) It rarely existed among hunting  
(C) It was a structure that the Native Americans of the north Pacific Coast shared with many other peoples.  
(D) It provided a form of social organization that was found mainly among coastal peoples.
34. The word “abundant” in line 7 is closest in meaning to  
(A) prosperous (B) plentiful (C) acceptable (D) fundamental
35. All of the following are true of the north Pacific coast women EXCEPT that they  
(A) were more likely to catch shellfish than other kinds of fish  
(B) contributed more materials for tool making than the men did  
(C) sometimes searched for food far inland from the coast  
(D) prepared and preserved the fish
36. The word “They” in line 16 refers to  
(A) women (B) tools (C) mammals (D) men
37. The Native Americans of the north Pacific Coast used smokehouses in order to  
(A) store utensils used in food preparation (B) prevent fish and shellfish from spoiling  
(C) have a place to store fish and shellfish (D) prepare elaborate meals
38. The word “peculiar” in line 19 is closest in meaning to  
(A) strange (B) distinctive (C) appealing (D) biological
39. All of following are true of the cheese-like substance mentioned in paragraph 4 EXCEPT that it was  
(A) made from fish (B) not actually cheese  
(C) useful on long journeys (D) made in a short period of time

**Question 40-50**

Archaeological literature is rich in descriptions of pot making. Unlike modern industrial potters, prehistoric artisans created each of their pieces individually, using the simplest technology but demonstrating remarkable skill in making and adorning their vessels.

- Line* The clay used in prehistoric pot making was invariably selected with the utmost care:  
(5) often it was traded over considerable distances. The consistency of the clay was crucial: it was pounded meticulously and mixed with water to make it entirely even in texture. By careful kneading, the potter removed the air bubbles and made the clay as plastic as possible, allowing it to be molded into shape as the pot was built up. When a pot is fired. It loses its water and can crack, so the potter added a temper to the clay, a substance that  
(10) helped reduce shrinkage and cracking.

- Since surface finishes provided a pleasing appearance and also improved the durability in day-to-day use, the potter smoothed the exterior surface of the pot with wet hands. Often a wet clay solution, known as a slip, was applied to the smooth surface. Brightly colored slips were often used and formed painted decorations on the vessel. In later times, glazes  
(15) came into use in some areas. A glaze is a form of slip that turns to a glasslike finish during high-temperature firing. When a slip was not applied, the vessel was allowed to dry slowly until the external surface was almost like leather in texture. It was then rubbed with a round stone or similar object to give it a shiny, hard surface. Some pots were adorned with incised or stamped decorations.
- (20) Most early pottery was then fired over open hearths. The vessels were covered with fast-burning wood; as it burned, the ashes would all around the pots and bake them

evenly over a few hours. Far higher temperatures were attained in special ovens, known as kilns, which would not only bake the clay and remove its plasticity, but also dissolve carbons and iron compounds. Kilns were also used for glazing, when two firings were needed. Once fired, the pots were allowed to cool slowly, and small cracks were repaired before they were ready for use.

40. What does the passage mainly discuss?  
 (A) Why archaeologists study prehistoric pot making  
 (B) How early pottery was made and decorated  
 (C) The development of kilns used by early potters  
 (D) The variety of decorations on Prehistoric pottery
41. The word "meticulously" in line 6 is closest in meaning to  
 (A) heavily (B) initially (C) carefully (D) completely
42. Which of the following was a process used by prehistoric potters to improve the texture of the clay?  
 (A) Adding temper (B) Removing the water  
 (C) Beating on the clay (D) Mixing the clay with plastic substances
43. The word "durability" in line 11 is closest in meaning to  
 (A) quality (B) endurance (C) adaptability (D) applicability
44. Prehistoric potters applied slips and glazes to their vessels in order to do which of the following?  
 (A) Improve the appearance of the vessels (B) prevent the vessels from leaking  
 (C) Help the vessels a leather like quality (D) Give the vessels a leather like quality
45. Which of the following was a method used by some potters to give vessels a glossy finish?  
 (A) Smoothing them with wet hands (B) Mixing the clay with colored solutions  
 (C) Baking them at a very high temperature (D) Rubbing them with a smooth hard object
46. The word "incised" in line 19 is closest in meaning to  
 (A) designed (B) carved (C) detailed (D) painted
47. The word "they" in line 26 refers to  
 (A) kilns (B) firings (C) pots (D) cracks
48. According to the passage, the advantage of kilns over open fires was that the kilns  
 (A) required less wood for burning (B) reached higher temperatures  
 (C) kept ashes away from the pots (D) baked vessels without cracking them
49. Look at the terms "temper" (line 9), "glazes" (line 14), "kilns" (line 23), and "compounds" (line 24). Which of these terms is NOT defined in the passage?  
 (A) temper (B) glazes (C) kilns (D) compounds
50. The passage mentions that when pottery is fired under burning wood, the ashes help  
 (A) prevent the clay from cracking (B) produce a more consistently baked pot  
 (C) attain a very high temperature (D) give the vessel a glasslike finish

# PRACTICE TEST 17

## October 2000

### Questions 1-10

One area of paleoanthropological study involves the eating and dietary habits of hominids, erect bipedal primates—including early humans. It is clear that at some stage of history, humans began to carry their food to central places, called home bases, where it

- Line* was shared and consumed with the young and other adults. The use of home bases is a  
(5) fundamental component of human social behavior; the common meal served at a common hearth is a powerful symbol, a mark of social unity. Home base behavior does not occur among nonhuman primates and is rare among mammals. It is unclear when humans began to use home bases, what kind of communications and social relations were involved, and what the ecological and food-choice contexts of the shift were. Work on early tools,  
(10) surveys of paleoanthropological sites, development and testing of broad ecological theories, and advances in comparative primatology are contributing to knowledge about this central chapter in human prehistory.

One innovative approach to these issues involves studying damage and wear on stone tools. Researchers make tools that replicate excavated specimens as closely as possible

- (15) and then try to use them as the originals might have been used, in woodcutting, hunting, or cultivation. Depending on how the tool is used, characteristic chippage patterns and microscopically distinguishable polishes develop near the edges. The first application of this method of analysis to stone tools that are 1.5 million to 2 million years old indicates that, from the start, an important function of early stone tools was to extract highly  
(20) nutritious food—meat and marrow—from large animal carcasses. Fossil bones with cut marks caused by stone tools have been discovered lying in the same 2-million-year-old layers that yielded the oldest such tools and the oldest hominid specimens (including humans) with larger than ape-sized brains. This discovery increases scientists' certainty about when human ancestors began to eat more meat than present-day nonhuman  
(25) primates. But several questions remain unanswered: how frequently meat eating occurred; what the social implications of meat eating were; and whether the increased use of meat coincides with the beginnings of the use of home bases.

1. The passage mainly discusses which of the following aspects of hominid behavior?  
(A) Changes in eating and dietary practices  
(B) The creation of stone hunting tools  
(C) Social interactions at home bases  
(D) Methods of extracting nutritious food from carcasses
2. According to the passage, bringing a meal to a location to be shared by many individuals is  
(A) an activity typical of nonhuman primates  
(B) a common practice among animals that eat meat  
(C) an indication of social unity.  
(D) a behavior that encourages better dietary habits
3. The word "consumed" in line 4 is closest in meaning to  
(A) prepared                      (B) stored                      (C) distributed                      (D) eaten
4. According to paragraph 2, researchers make copies of old stone tools in order to  
(A) protect the old tools from being worn out  
(B) display examples of the old tools in museums  
(C) test theories about how old tools were used

- (D) learn how to improve the design of modern tools
5. In paragraph 2, the author mentions all of the following as examples of ways in which early stone tools were used EXCEPT to  
 (A) build home bases      (B) obtain food      (C) make weapons      (D) shape wood
6. The word "innovative" in line 13 is closest in meaning to  
 (A) good      (B) new      (C) simple      (D) costly
7. The word "them" in line 15 refers to  
 (A) issues      (B) researchers      (C) tools      (D) specimens
8. The author mentions "characteristic chippage patterns" in line 16 as an example of  
 (A) decorations cut into wooden objects  
 (B) differences among tools made of various substances  
 (C) impressions left on prehistoric animal bones  
 (D) indications of wear on stone tools
9. The word "extract" in line 19 is closest in meaning to  
 (A) identify      (B) remove      (C) destroy      (D) compare
10. The word "whether" in line 26 is closest in meaning to  
 (A) if      (B) how      (C) why      (D) when

### Questions 11-20

In seventeenth-century colonial North America, all day-to-day cooking was done in the fireplace. Generally large, fireplaces were planned for cooking as well as for warmth. Those in the Northeast were usually four or five feet high, and in the South, they were  
*Line* often high enough for a person to walk into. A heavy timber called the mantel tree was  
 (5) used as a lintel to support the stonework above the fireplace opening. This timber might be scorched occasionally, but it was far enough in front of the rising column of heat to be safe from catching fire.

Two ledges were built across from each other on the inside of the chimney. On these rested the ends of a "lug pole" from which pots were suspended when cooking. Wood  
 (10) from a freshly cut tree was used for the lug pole, so it would resist heat, but it had to be replaced frequently because it dried out and charred, and was thus weakened. Sometimes the pole broke and the dinner fell into the fire. When iron became easier to obtain, it was used instead of wood for lug poles, and later fireplaces had pivoting metal rods to hang pots from.

Beside the fireplace and built as part of it was the oven. It was made like a small,  
 (15) secondary fireplace with a flue leading into the main chimney to draw out smoke. Sometimes the door of the oven faced the room, but most ovens were built with the opening facing into the fireplace. On baking days (usually once or twice a week) a roaring fire of "oven wood," consisting of brown maple sticks, was maintained in the oven until its walls were extremely hot. The embers were later removed, bread dough was put into the oven, and the oven was sealed shut until the bread was fully baked.

Not all baking was done in a big oven, however. Also used was an iron "bake kettle," which looked like a stewpot on legs and which had an iron lid. This is said to have worked well when it was placed in the fireplace, surrounded by glowing wood embers, with more embers piled on its lid.

11. Which of the following aspects of domestic life in colonial North America does the passage mainly discuss?  
 (A) Methods of baking bread

- (B) Fireplace cooking
  - (C) The use of iron kettles in a typical kitchen
  - (D) The types of wood used in preparing meals
12. The author mentions the fireplaces built in the South to illustrate
- (A) how the materials used were similar to the materials used in northeastern fireplaces
  - (B) that they served diverse functions
  - (C) that they were usually larger than northeastern fireplaces
  - (D) how they were safer than northeastern fireplaces
13. The word "scorched" in line 6 is closest in meaning to
- (A) burned
  - (B) cut
  - (C) enlarged
  - (D) bent
14. The word "it" in line 6 refers to
- (A) the stonework
  - (B) the fireplace opening
  - (C) the mantel tree
  - (D) the rising column of heat
15. According to the passage, how was food usually cooked in a pot in the seventeenth century?
- (A) By placing the pot directly into the fire
  - (B) By putting the pot in the oven
  - (C) By filling the pot with hot water
  - (D) By hanging the pot on a pole over the fire
16. The word "obtain" in line 12 is closest in meaning to
- (A) maintain
  - (B) reinforce
  - (C) manufacture
  - (D) acquire
17. Which of the following is mentioned in paragraph 2 as a disadvantage of using a wooden lug pole?
- (A) It was made of wood not readily available.
  - (B) It was difficult to move or rotate.
  - (C) It occasionally broke.
  - (D) It became too hot to touch.
18. It can be inferred from paragraph 3 that, compared to other firewood, "oven wood" produced
- (A) less smoke
  - (B) more heat
  - (C) fewer embers
  - (D) lower flames
19. According to paragraph 3, all of the following were true of a colonial oven EXCEPT:
- (A) It was used to heat the kitchen every day.
  - (B) It was built as part of the main fireplace.
  - (C) The smoke it generated went out through the main chimney.
  - (D) It was heated with maple sticks.
20. According to the passage, which of the following was an advantage of a "bake kettle"?
- (A) It did not take up a lot of space in the fireplace.
  - (B) It did not need to be tightly closed.
  - (C) It could be used in addition to or instead of the oven.
  - (D) It could be used to cook several foods at one time.

**Questions 21-29**

Butterflies are among the most extensively studied insects—an estimated 90 percent of the world's species have scientific names. As a consequence, they are perhaps the best group of insects for examining patterns of terrestrial biotic diversity and distribution. Butterflies also have a favorable image with the general public. Hence, they are an excellent group for

(5) communicating information on science and conservation issues such as diversity.

Perhaps the aspect of butterfly diversity that has received the most attention over the past century is the striking difference in species richness between tropical and temperate regions. For example, in 1875 one biologist pointed out the diversity of butterflies in the Amazon when he mentioned that about 700 species were found within an hour's walk, whereas the total

(10) number found on the British islands did not exceed 66, and the whole of Europe supported only

321. This early comparison of tropical and temperate butterfly richness has been well confirmed.

A general theory of diversity would have to predict not only this difference between temperate and tropical zones, but also patterns within each region, and how these patterns vary among different animal and plant groups. However, for butterflies, variation of species richness within temperate or tropical regions, rather than between them, is poorly understood. Indeed, comparisons of numbers of species among the Amazon basin, tropical Asia, and Africa are still mostly "personal communication" citations, even for vertebrates. In other words, unlike comparison between temperate and tropical areas, these patterns are still in the documentation phase.

In documenting geographical variation in butterfly diversity, some arbitrary, practical decisions are made. Diversity, number of species, and species richness are used synonymously; little is known about the evenness of butterfly distribution. The New World butterflies make up the preponderance of examples because they are the most familiar species. It is hoped that by focusing on them, the errors generated by imperfect and incomplete taxonomy will be minimized.

21. Which aspect of butterflies does the passage mainly discuss?  
 (A) Their physical characteristics (B) Their names  
 (C) Their adaptation to different habitats (D) Their variety
22. The word "consequence" in line 2 is closest in meaning to  
 (A) result (B) explanation (C) analysis (D) requirement
23. Butterflies are a good example for communicating information about conservation issues because they  
 (A) are simple in structure (B) are viewed positively by people  
 (C) have been given scientific names (D) are found mainly in temperate climates
24. The word "striking" in line 7 is closest in meaning to  
 (A) physical (B) confusing (C) noticeable (D) successful
25. The word "exceed" in line 10 is closest in meaning to  
 (A) locate (B) allow (C) go beyond (D) come close to
26. All of the following are mentioned as being important parts of a general theory of diversity EXCEPT  
 (A) differences between temperate and tropical zones  
 (B) patterns of distribution of species in each region  
 (C) migration among temperate and tropical zones  
 (D) variation of patterns of distribution of species among different animals and plants
27. The author mentions tropical Asia in lines 17-18 as an example of a location where  
 (A) butterfly behavior varies with climate  
 (B) a general theory of butterfly diversity has not yet been firmly established  
 (C) butterflies are affected by human populations  
 (D) documenting plant species is more difficult than documenting butterfly species
28. Which of the following is NOT well understood by biologists?  
 (A) European butterfly habitats  
 (B) Differences in species richness between temperate and tropical regions  
 (C) Differences in species richness within a temperate or a tropical region  
 (D) Comparisons of behavior patterns of butterflies and certain animal groups
29. The word "generated" in line 25 is closest in meaning to  
 (A) requested (B) caused (C) assisted (D) estimated

**Questions 30-40**

According to anthropologists, people in preindustrial societies spent 3 to 4 hours per day or about 20 hours per week doing the work necessary for life. Modern comparisons of the amount of work performed per week, however, begin with the Industrial Revolution

*Line* (1760-1840) when 10- to 12-hour workdays with six workdays per week were the norm.

(5) Even with extensive time devoted to work, however, both incomes and standards of living were low. As incomes rose near the end of the Industrial Revolution, it became increasingly common to treat Saturday afternoons as a half-day holiday. The half holiday had become standard practice in Britain by the 1870's, but did not become common in the United States until the 1920's.

(10) In the United States, the first third of the twentieth century saw the workweek move from 60 hours per week to just under 50 hours by the start of the 1930' s. In 1914 Henry Ford reduced daily work hours at his automobile plants from 9 to 8. In 1926 he announced that henceforth his factories would close for the entire day on Saturday. At the time, Ford received criticism from other firms such as United States Steel and Westinghouse, but the

(15) idea was popular with workers.

The Depression years of the 1930's brought with them the notion of job sharing to spread available work around; the workweek dropped to a modern low for the United States of 35 hours. In 1938 the Fair Labor Standards Act mandated a weekly maximum of 40 hours to begin in 1940, and since that time the 8-hour day, 5-day workweek has been the standard in

(20) the United States. Adjustments in various places, however, show that this standard is not immutable. In 1987, for example, German metalworkers struck for and received a 37.5-hour workweek; and in 1990 many workers in Britain won a 37-hour week. Since 1989, the Japanese government has moved from a 6- to a 5-day workweek and has set a national target of 1,800 work hours per year for the average worker. The average amount of work

(25) per year in Japan in 1989 was 2,088 hours per worker, compared to 1,957 for the United States and 1,646 for France.

30. What does the passage mainly discuss?

- (A) Why people in preindustrial societies worked few hours per week
- (B) Changes that have occurred in the number of hours that people work per week
- (C) A comparison of the number of hours worked per year in several industries
- (D) Working conditions during the Industrial Revolution

31. Compared to preindustrial times, the number of hours in the workweek in the nineteenth century

- (A) remained constant
- (B) decreased slightly
- (C) decreased significantly
- (D) increased significantly

32. The word "norm" in line 4 is closest in meaning to

- (A) minimum.
- (B) example
- (C) possibility
- (D) standard

33. The word "henceforth" in line 13 is closest in meaning to

- (A) in the end
- (B) for a brief period
- (C) from that time on
- (D) on occasion

34. The "idea" mentioned in line 15 refers to

- (A) the 60-hour workweek



- (B) the reduction in the cost of automobiles  
 (C) the reduction in the workweek at some automobile factories  
 (D) the criticism of Ford by United States Steel and Westinghouse
35. What is one reason for the change in the length of the workweek for the average worker in the United States during the 1930's?  
 (A) Several people sometimes shared a single job.  
 (B) Labor strikes in several countries influenced labor policy in the United States.  
 (C) Several corporations increased the length of the workweek.  
 (D) The United States government instituted a 35-hour workweek.
36. Which of the following is mentioned as one of the purposes of the Fair Labor Standards Act of 1938 ?  
 (A) To discourage workers from asking for increased wages  
 (B) To establish a limit on the number of hours in the workweek  
 (C) To allow employers to set the length of the workweek for their workers  
 (D) To restrict trade with countries that had a long workweek
37. The word "mandated" in line 18 is closest in meaning to  
 (A) required (B) recommended (C) eliminated (D) considered
38. The word "immutable" in line 21 is closest in meaning to  
 (A) unmatched (B) irregular (C) unnecessary (D) unchangeable
39. Which of the following is NOT mentioned as evidence that the length of the workweek has been declining since the nineteenth century?  
 (A) The half-day holiday (line 7)  
 (B) Henry Ford (lines 11-12)  
 (C) United States Steel and Westinghouse (line 14)  
 (D) German metalworkers (line 21)
40. According to the passage, one goal of the Japanese government is to reduce the average annual amount of work to  
 (A) 1,646 hours (B) 1,800 hours (C) 1,957 hours (D) 2,088 hours

### Questions 41-50

- The Arts and Crafts Movement in the United States was responsible for sweeping changes in attitudes toward the decorative arts, then considered the minor or household arts. Its focus on decorative arts helped to induce United States museums and private collectors to begin collecting
- Line* furniture, glass, ceramics, metalwork, and textiles in the late nineteenth and early twentieth  
 (5) centuries. The fact that artisans, who were looked on as mechanics or skilled workers in the eighteenth century, are frequently considered artists today is directly attributable to the Arts and Crafts Movement of the nineteenth century. The importance now placed on attractive and harmonious home decoration can also be traced to this period, when Victorian interior arrangements were revised to admit greater light and more freely flowing spaces.
- (10) The Arts and Crafts Movement reacted against mechanized processes that threatened handcrafts and resulted in cheapened, monotonous merchandise. Founded in the late nineteenth century by British social critics John Ruskin and William Morris, the movement revered craft as a form of art. In a rapidly industrializing society, most Victorians agreed that art was an essential moral ingredient in the home environment, and in many middle- and working-class homes craft was the only

- (15) form of art, Ruskin and his followers criticized not only the degradation of artisans reduced to machine operators, but also the impending loss of daily contact with handcrafted objects, fashioned with pride, integrity, and attention to beauty.

In the United States as well as in Great Britain, reformers extolled the virtues of handcrafted objects: simple, straightforward design; solid materials of good quality; and sound, enduring

- (20) construction techniques. These criteria were interpreted in a variety of styles, ranging from rational and geometric to romantic or naturalistic. Whether abstract, stylized, or realistically treated, the consistent theme in virtually all Arts and Crafts design is nature.

The Arts and Crafts Movement was much more than a particular style; it was a philosophy of domestic life. Proponents believed that if simple design, high-quality materials, and honest construction were realized in the home and its appointments, then the occupants would enjoy moral and therapeutic effects. For both artisan and consumer,

- (30) the Arts and Crafts doctrine was seen as a magical force against the undesirable effects of industrialization.

41. The passage primarily focuses on nineteenth-century arts and crafts in terms of which of the following?  
(A) Their naturalistic themes (B) Their importance in museum collections  
(C) Their British origin (D) Their role in an industrialized society

42. According to the passage, before the nineteenth century, artisans were thought to be  
(A) defenders of moral standards (B) creators of cheap merchandise  
(C) skilled workers (D) artists

43. It can be inferred from the passage that the Arts and Crafts Movement would have considered all of the following to be artists EXCEPT  
(A) creators of textile designs  
(B) people who produce handmade glass objects  
(C) operators of machines that automatically cut legs, for furniture  
(D) metalworkers who create unique pieces of jewelry

44. The word "revered" in line 12 is closest in meaning to  
(A) respected (B) described (C) avoided (D) created

45. According to paragraph 2, the handcrafted objects in the homes of middle- and working-class families usually were  
(A) made by members of the family (B) the least expensive objects in their homes  
(C) regarded as being morally uplifting (D) thought to symbolize progress

46. The word "extolled" in line 18 is closest in meaning to  
(A) exposed (B) praised (C) believed (D) accepted

47. The author mentions all of the following as attributes of handcrafted objects EXCEPT  
(A) the pride with which they were crafted (B) the complexity of their design  
(C) the long time that they lasted (D) the quality of their materials

48. The word "consistent" in line 22 is closest in meaning to  
(A) conservative (B) considerable (C) constant (D) concrete

49. According to the passage, which of the following changes occurred at the same time as the Arts and Crafts Movement?  
(A) The creation of brighter and more airy spaces inside homes  
(B) The rejection of art that depicted nature in a realistic manner  
(C) A decline of interest in art museum collections  
(D) An increase in the buying of imported art objects

50. Which of the following statements is supported by the passage?
- (A) Private collectors in the nineteenth century concentrated on acquiring paintings.
  - (B) The Arts and Crafts Movement in the United States, unlike the one in Britain, did not react strongly against mechanized processes.
  - (C) Handcrafted objects in the United States and Britain in the nineteenth century did not use geometric designs.
  - (D) The Arts and Crafts Movement believed in the beneficial effect for people from being surrounded by beautiful objects.

# PRACTICE TEST 18

## January 1999

### Question 1-12

The Native Americans of northern California were highly skilled at basketry, using the reeds, grasses, bards, and roots they found around them to fashion articles of all sorts and sizes - not only trays, containers, and cooking pots, but hats, boats, fish

*Line* traps, baby carriers, and ceremonial objects.

- (5) Of all these experts, none excelled the Pomo - a group who lived on or near the coast during the 1800's, and whose descendants continue to live in parts of the same region to this day. They made baskets three feet in diameter and others no bigger than a thimble. The Pomo people were masters of decoration. Some of their baskets were completely covered with shell pendants; others with feathers that made the baskets' surfaces as soft as the breasts of birds. Moreover, the Pomo people made use of more weaving techniques than did their neighbors. Most groups made all their basketwork by twining - the twisting of a flexible horizontal material, called a weft, around stiffer vertical strands of material, the warp. Others depended primarily on coiling - a process in which a continuous coil of stiff material is held in the desired shape by a tight wrapping of flexible strands. Only the Pomo people used both processes with equal ease and frequency. In addition, they made use of four distinct variations on the basic twining process, often employing more than one of them in a single article.

- (15) Although a wide variety of materials was available, the Pomo people used only a few. The warp was always made of willow, and the most commonly used weft was sedge root, a woody fiber that could easily be separated into strands no thicker than a thread. For color, the Pomo people used the bark of redbud for their twined work and dyed bullrush root for black in coiled work. Though other materials were sometimes used, these four were the staples in their finest basketry.

- (20) If the basketry materials used by the Pomo people were limited, the designs were amazingly varied. Every Pomo basketmaker knew how to produce from fifteen to twenty distinct patterns that could be combined in a number of different ways.

1. What best distinguished Pomo baskets from baskets of other groups?  
(A) The range of sizes, shapes, and designs      (B) The unusual geometric  
(C) The absence of decoration      (D) The rare materials used
2. The word "fashion" in line 2 is closest in meaning to  
(A) maintain      (B) organize      (C) trade      (D) create
3. The Pomo people used each of the following materials to decorate baskets EXCEPT  
(A) shells      (B) feathers      (C) leaves      (D) bark
4. What is the author's main point in the second paragraph?  
(A) The neighbors of the Pomo people tried to improve on the Pomo basket weaving techniques.  
(B) The Pomo people were the most skilled basket weavers in their region.  
(C) The Pomo people learned their basket weaving techniques from other Native Americans.  
(D) The Pomo baskets have been handed down for generations.
5. The word "others" in line 9 refers to  
(A) masters      (B) baskets      (C) pendants      (D) surfaces

6. According to the passage is a  
 (A) tool for separating sedge root (B) process used for coloring baskets  
 (C) pliable material woven around the warp (D) pattern used to decorate baskets
7. According to the passage, what did the Pomo people use as the warp in their baskets?  
 (A) Bullrush (B) willow (C) Sedge (D) Redbud
8. The word "article" in line 17 is close in meaning to  
 (A) decoration (B) shape (C) design (D) object
9. According to the passage. The relationship between redbud and twining is most similar to the relationship between  
 (A) bullrush and coiling (B) weft and warp  
 (C) willow and feathers (D) sedge and weaving
10. The word "staples" in line 23 is closest in meaning to  
 (A) combinations (B) limitations (C) accessories (D) basic elements
11. The word "distinct" in line 26 is closest in meaning to  
 (A) systematic (B) beautiful (C) different (D) compatible
12. Which of the following statements about Pomo baskets can be best inferred from the passage?  
 (A) Baskets produced by other Native Americans were less varied in design than those of the Pomo people.  
 (B) Baskets produced by Pomo weavers were primarily for ceremonial purposes.  
 (C) There was a very limited number of basketmaking materials available to the Pomo people.  
 (D) The basketmaking production of the Pomo people has increased over the years.

### Questions 13-20

Any rock that has cooled and solidified from a molten state is an igneous rock. Therefore, if the Earth began as a superheated sphere in space, all the rocks making up its crust may well have been igneous and thus the ancestors of all other rocks. Even  
*Line* today, approximately 95 percent of the entire crust is igneous. Periodically, molten  
 (5) material wells out of the Earth's interior to invade the surface layers or to flow onto the surface itself. This material cools into a wide variety of igneous rocks. In the molten state, it is called magma as it pushes into the crust and lava when it runs out onto the surface.

All magma consists basically of a variety of silicate minerals (high in siliconoxygen  
 (10) compounds), but the chemical composition of any given flow may differ radically from that of any other. The resulting igneous rocks will reflect these differences. Igneous rocks also vary in texture as well as chemistry. Granite, for instance, is a coarse-grained igneous rock whose individual mineral crystals have formed to a size easily seen by the naked eye. A slow rate of cooling has allowed the  
 (15) crystals to reach this size. Normally, slow cooling occurs when the crust is invaded by magma that remains buried well below the surface. Granite may be found on the surface of the contemporary landscape, but from its coarse texture we know that it must have formed through slow cooling at a great depth and later been laid bare by erosion. Igneous rocks with this coarse-grained texture that formed at depth are called *plutonic*.

(20) On the other hand, if the same magma flows onto the surface and is quickly cooled by the atmosphere, the resulting rock will be fine-grained and appear quite different

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- from granite, although the chemical composition will be identical. This kind of rock is called rhyolite. The most finely grained igneous rock is volcanic glass or obsidian, which has no crystals. Some researchers believe this is because of rapid cooling; others
- (25) believe it is because of a lack of water vapor and other gases in the lava. The black obsidian cliffs of Yellowstone National Park are the result of a lava flow of basalt running head on into a glacier. Some of the glacier melted on contact, but suddenly there also appeared a huge black mass of glassy stone.
13. In the first paragraph, the author mentions that  
(A) the Earth began as a molten mass  
(B) a thin layer of magma flows beneath the Earth's crust  
(C) the minerals found in igneous rock are very common  
(D) igneous rock is continually being formed
14. The word "invade" in line 5 is closest in meaning to  
(A) move into                      (B) neutralize                      (C) cover                      (D) deposit
15. The word "contemporary" in line 17 is closest in meaning to  
(A) vast                      (B) natural                      (C) existing                      (D) uneven
16. The word "it" in line 17 refers to  
(A) granite                      (B) surface                      (C) landscape                      (D) texture
17. Granite that has been found above ground has been  
(A) pushed up from below the crust by magma                      (B) produced during a volcanic explosion  
(C) gradually exposed due to erosion                      (D) pushed up by the natural shifting of the Earth
18. Which of the following is produced when magma cools rapidly?  
(A) Granite                      (B) Plutonic rock                      (C) Rhyolite                      (D) Mineral crystals
19. The word "finely" in line 23 is closest in meaning to  
(A) minutely                      (B) loosely                      (C) sensitively                      (D) purely
20. Which of the following is another name for volcanic glass?  
(A) Plutonic rock                      (B) Crystal                      (C) Lava                      (D) Obsidian

**Questions 21-33**

Although only 1 person in 20 in the Colonial period lived in a city, the cities had a disproportionate influence on the development of North America. They were at the cutting edge of social change. It was in the cities that the elements that can be associated with modern capitalism first appeared - the use of money and commercial

*Line* (5) paper in place of barter, open competition in place of social deference and hierarchy, with an attendant rise in social disorder, and the appearance of factories using coal or water power in place of independent craftspeople working with hand tools. "The cities predicted the future," wrote historian Gary. B. Nash, "even though they were but overgrown villages compared to the great urban centers of Europe, the Middle East

(10) and China."

Except for Boston, whose population stabilized at about 16,000 in 1760, cities grew by exponential leaps through the eighteenth century. In the fifteen years prior to the outbreak of the War for independence in 1775, more than 200,000 immigrants arrived on North American shores. This meant that a population the size of Boston was

(15) arriving every year, and most of it flowed into the port cities in the Northeast.

Philadelphia's population nearly doubled in those years, reaching about 30,000 in 1774, New York grew at almost the same rate, reaching about 25,000 by 1775.

(20) The quality of the hinterland dictated the pace of growth of the cities. The land surrounding Boston had always been poor farm country, and by the mid-eighteenth century it was virtually stripped of its timber. The available farmland was occupied, there was little in the region beyond the city to attract immigrants. New York and Philadelphia, by contrast, served a rich and fertile hinterland laced with navigable watercourses. Scots, Irish, and Germans landed in these cities and followed the rivers inland. The regions around the cities of New York and Philadelphia became the breadbaskets of North America, sending grain not only to other colonies but also to England and southern Europe, where crippling droughts in the late 1760's created a whole new market.

21. Which of the following aspects of North America in the eighteenth century does the passage mainly discuss?
- (A) The effects of war on the growth of cities  
 (B) The growth and influence of cities  
 (C) The decline of farming in areas surrounding cities  
 (D) The causes of immigration to cities
22. Why does the author say that "the cities had a disproportionate influence on the development of North America (lines 1-2)?"
- (A) The influence of the cities was mostly negative  
 (B) The populations of the cities were small, but their influence was great.  
 (C) The cities were growing at a great rate.  
 (D) Most people pretended to live in cities
23. The phrase "in place of" in line 5 is closest in meaning to
- (A) connected to                      (B) in addition to                      (C) because of                      (D) instead of
24. The word "attendant" in line 6 is closest in meaning to
- (A) avoidable                      (B) accompanying                      (C) unwelcome                      (D) unexpected
25. Which of the following is mentioned as an element of modern capitalism?
- (A) Open competition                      (B) Social deference  
 (C) Social hierarchy                      (D) Independent craftspeople
26. It can be inferred that in comparison with North American cities, cities in Europe, the Middle East, and China had
- (A) large populations                      (B) little independence  
 (C) frequent social disorder                      (D) few power sources
27. The phrase "exponential leaps" in line 12 is closest in meaning to
- (A) long wars                      (B) new laws  
 (C) rapid increases                      (D) exciting changes
28. The word "it" in line 15 refers to
- (A) population                      (B) size                      (C) Boston                      (D) Year
29. How many immigrants arrived in North America between 1760 and 1775?
- (A) About 16,000                      (B) About 25,000  
 (C) About 30,000                      (D) More than 200,000
30. The word "dictated" in line 18 is closest in meaning to
- (A) spoiled                      (B) reduced                      (C) determined                      (D) divided

31. The word "virtually" in line 20 is closest in meaning to  
(A) usually (B) hardly  
(C) very quickly (D) almost completely
32. The region surrounding New York and Philadelphia is contrasted with the region surrounding Boston in terms of  
(A) quality of farmland (B) origin of immigrants  
(C) opportunities for fishing (D) type of grain grown
33. Why does the author describe the regions around the cities of New York and Philadelphia as "breadbaskets"?
- (A) They produced grain especially for making bread.  
(B) They stored large quantities of grain during periods of drought  
(C) They supplied grain to other parts of North America and other countries.  
(D) They consumed more grain than all the other regions of North America.

### **Questions 34-44**

- Researchers in the field of psychology have found that one of the best ways to make an important decision, such as choosing a university to attend or a business to invest in, involves the utilization of a decision worksheet. Psychologists who study optimization
- Line* compare the actual decisions made by people to theoretical ideal decisions to see how
- (5) similar they are. Proponents of the worksheet procedure believe that it will yield optimal, that is, the best decisions. Although there are several variations on the exact format that worksheets can take, they are all similar in their essential aspects. Worksheets require defining the problem in a clear and concise way and then listing all possible solutions to the problem. Next, the pertinent considerations that will be
- (10) affected by each decision are listed, and the relative importance of each consideration or consequence is determined. Each consideration is assigned a numerical value to reflect its relative importance. A decision is mathematically calculated by adding these values together. The alternative with the highest number of points emerges as the best decision.
- (15) Since most important problems are multifaceted, there are several alternatives to choose from, each with unique advantages and disadvantages. One of the benefits of a pencil and paper decision-making procedure is that it permits people to deal with more variables than their minds can generally comprehend and remember. On the average, people can keep about seven ideas in their minds at once. A worksheet can be
- (20) especially useful when the decision involves a large number of variables with complex relationships. A realistic example for many college students is the question "What will I do after graduation?" A graduate might seek a position that offers specialized training, pursue an advanced degree, or travel abroad for a year.
- A decision-making worksheet begins with a succinct statement of the problem that
- (25) will also help to narrow it. It is important to be clear about the distinction between long-range and immediate goals because long-range goals often involve a different decision than short-range ones. Focusing on long-range goals, a graduating student might revise the question above to "What will I do after graduation that will lead to a successful career?"



34. What does the passage mainly discuss?  
 (A) A tool to assist in making complex decisions.  
 (B) A comparison of actual decisions and ideal decisions  
 (C) Research on how people make decisions  
 (D) Differences between long-range and short-range decision making
35. The word "essential" in line 7 is closest in meaning to  
 (A) introductory (B) changeable (C) beneficial (D) fundamental
36. The word "pertinent" in line 9 is closest in meaning to  
 (A) relevant (B) preceding (C) insightful (D) responsive
37. Of the following steps, which occurs before the others in making a decision worksheet?  
 (A) Listing the consequences of each solution  
 (B) Calculating a numerical summary of each solution  
 (C) Deciding which consequences are most important  
 (D) Writing down all possible solutions
38. According to decision-worksheet theory, an optimal decision is defined as one that  
 (A) has the fewest variables to consider (B) uses the most decision worksheets  
 (C) has the most points assigned to it (D) is agreed to by the greatest number of people
39. The author develops the discussion in paragraph I by means of  
 (A) describing a process (B) classifying types of worksheets  
 (C) providing historical background (D) explaining a theory
40. The author states that "On the average, people can keep about seven ideas in their minds at once (lines 18-19) to explain that  
 (A) most decisions involve seven steps  
 (B) human mental capacity has limitations  
 (C) some people have difficulty making minor as well as major decisions  
 (D) people can learn to keep more than seven ideas in their minds with practice
41. The word "succinct" in line 24 is closest in meaning to  
 (A) creative (B) satisfactory (C) personal (D) concise
42. Which of the following terms is defined in the passage?  
 (A) Proponents (line 5) (B) Optimal (line 6)  
 (C) Variables (line 18) (D) Long-range goals (line 26)
43. The word "it" in line 25 refers to  
 (A) worksheet (B) problem (C) distinction (D) decision
44. The word "revise" in line 28 is closest in meaning to  
 (A) ask (B) explain (C) change (D) predict

### Questions 45-50

Elizabeth Hazen and Rachel Brown copatented one of the most widely acclaimed wonder drugs of the post-Second World War years. Hazen and Brown's work was stimulated by the wartime need to find a cure for the fungus infections that afflicted many military personnel. Scientists had been feverishly searching for an antibiotic  
*Line* (5) toxic enough to kill the fungi but safe enough for human use, since, unfortunately, the new "wonder drugs" such as penicillin and streptomycin killed the very bacteria in the body that controlled the fungi. It was to discover a fungicide without that double effect that Brown, of New York State's Department of Health Laboratories at Albany, and

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Hazen, senior microbiologist at the Department of Health in New York, began their  
(10) long-distance collaboration. Based upon Hazen's previous research at Columbia University, where she had built an impressive collection of fungus cultures, both were convinced that an antifungal organism already existed in certain soils.

They divided the work. Hazen methodically screened and cultured scores of soil samples, which she then sent to her partner, who prepared extracts, isolated and  
(15) purified active agents, and shipped them back to New York, where Hazen could study their biological properties. On a 1948 vacation, Hazen fortuitously collected a clump of soil from the edge of W.B. Nourse's cow pasture in Fauquier County, Virginia, that, when tested, revealed the presence of the microorganisms. In farm owner Nourse's honor. Hazen named it *Streptomyces noursei*, and within a year the two scientists knew  
(20) that the properties of their substance distinguished it from previously described antibiotics. After further research they eventually reduced their substance to a fine, yellow powder, which they first named "fungiciden." Then renamed "nystatin" (to honor the New York State laboratory) when they learned the previous name was already in use. Of their major discovery, Brown said lightly that it simply illustrated  
(25) "how unpredictable consequences can come from rather modest beginnings."

**45.** What is the main topic of the passage?

- (A) The lives of Hazen and Brown. (B) The development of a safe fungicide.  
(C) The New York State Department of Health. (D) The development of penicillin.

**46.** What can be inferred from the passage about penicillin?

- (A) It effectively treats fungus infections.  
(B) It was developed before nystatin.  
(C) It was developed before the Second World War.  
(D) One of its by-products is nystatin.

**47.** Why does the author mention Columbia University in lines 10 and 11?

- (A) Hazen and Brown developed nystatin there.  
(B) Brown was educated there.  
(C) Hazen did research there.  
(D) It awarded a prize to Hazen and Brown.

**48.** The word "both" in line 11 refers to

- (A) Hazen and Brown  
(B) penicillin and streptomycin  
(C) the Department of Health laboratories at Albany and New York  
(D) double effect

**49.** What substance did Brown and Hazen analyze?

- (A) Dirt (B) Streptomycin (C) Bacteria (D) ???

**50.** Who was W. B. Nourse?

- (A) A microbiologist (B) A teacher of Hazen's  
(C) A collector of fungi (D) A farmer

# PRACTICE TEST 19

## May 1999

### Questions 1-9

The term "Hudson River school" was applied to the foremost representatives of nineteenth-century North American landscape painting. Apparently unknown during the golden days of the American landscape movement, which began around 1850 and lasted until the late 1860's, the Hudson River school seems to have emerged in the 1870's as a direct result of the struggle between the old and the new generations of artists, each to assert its own style as the representative American art. The older painters, most of whom were born before 1835, practiced in a mode often self-taught and monopolized by landscape subject matter and were securely established in and fostered by the reigning American art organization, the National Academy of Design. The younger painters returning home from training in Europe worked more with figural subject matter and in a bold and impressionistic technique; their prospects for patronage in their own country were uncertain, and they sought to attract it by attaining academic recognition in New York. One of the results of the conflict between the two factions was that what in previous years had been referred to as the "American", "native", or, occasionally, "New York" school – the most representative school of American art in any genre – had by 1890 become firmly established in the minds of critics and public alike as the Hudson River school.

The sobriquet was first applied around 1879. While it was not intended as flattering, it was hardly inappropriate. The Academicians at whom it was aimed had worked and socialized in New York, the Hudson's port city, and had painted the river and its shores with varying frequency. Most important, perhaps, was that they had all maintained with a certain fidelity a manner of technique and composition consistent with those of America's first popular landscape artist, Thomas Cole, who built a career painting the Catskill Mountain scenery bordering the Hudson River. A possible implication in the term applied to the group of landscapists was that many of them had, like Cole, lived on or near the banks of the Hudson. Further, the river had long served as the principal route to other sketching grounds favored by the Academicians, particularly the Adirondacks and the mountains of Vermont and New Hampshire.

1. What does the passage mainly discuss?  
(A) The National Academy of Design  
(B) Paintings that featured the Hudson River  
(C) North American landscape paintings  
(D) The training of American artists in European academies
2. Before 1870, what was considered the most representative kind of American painting?  
(A) Figural painting  
(B) Landscape painting  
(C) Impressionistic painting  
(D) Historical painting
3. The word "struggle" in line 5 is closest in meaning to  
(A) connection  
(B) distance  
(C) communication  
(D) competition
4. The word "monopolized" in line 8 is closest in meaning to  
(A) alarmed  
(B) dominated  
(C) repelled  
(D) pursued

5. According to the passage, what was the function of the National Academy of Design for the painters born before 1835?
- (A) It mediated conflicts between artists.
  - (B) It supervised the incorporation of new artistic techniques.
  - (C) It determined which subjects were appropriate.
  - (D) It supported their growth and development.
6. The word "it" in line 12 refers to
- (A) matter
  - (B) technique
  - (C) patronage
  - (D) country
7. The word "factions" in line 14 is closest in meaning to
- (A) sides
  - (B) people
  - (C) cities
  - (D) images
8. The word "flattering" in line 18 is closest in meaning to
- (A) expressive
  - (B) serious
  - (C) complimentary
  - (D) flashy
9. Where did the younger generation of painters receive its artistic training?
- (A) In Europe
  - (B) In the Adirondacks
  - (C) In Vermont
  - (D) In New Hampshire

### Questions 10-22

Television has transformed politics in the United States by changing the way in which information is disseminated, by altering political campaigns, and by changing citizen's patterns of response to politics. By giving citizens independent access to the candidates, television diminished the role of the political party in the selection of the major party candidates. By centering politics on the person of the candidate, television accelerated the citizen's focus on character rather than issues.

Television has altered the forms of political communication as well. The messages on which most of us rely are briefer than they once were. The stump speech, a political speech given by traveling politicians and lasting 3/2 to 2 hours, which characterized nineteenth-century political discourse, has given way to the 30-second advertisement and the 10 second "sound bite" in broadcast news. Increasingly the audience for speeches is not that standing in front of the politician but rather the viewing audience who will hear and see a snippet of the speech on the news.

In these abbreviated forms, much of what constituted the traditional political discourse of earlier ages has been lost. In 15 or 30 seconds, a speaker cannot establish the historical context that shaped the issue in question, cannot detail the probable causes of the problem, and cannot examine alternative proposals to argue that one is preferable to others. In snippets, politicians assert but do not argue.

Because television is an intimate medium, speaking through it require a changed political style that was more conversational, personal, and visual than that of the oldstyle stump speech. Reliance on television means that increasingly our political world contains memorable pictures rather than memorable words. Schools teach us to analyze words and print. However, in a word in which politics is increasingly visual, informed citizenship requires a new set of skills.

Recognizing the power of television's pictures, politicians craft televisual, staged events, called pseudo-event, designed to attract media coverage. Much of the political activity we see on television news has been crafted by politicians, their speechwriters,

and their public relations advisers for televised consumption. Sound bites in news and answers to questions in debates increasingly sound like advertisements.

10. What is the main point of the passage?  
 (A) Citizens in the United States are now more informed about political issues because of television coverage.  
 (B) Citizens in the United States prefer to see politicians on television instead of in person.  
 (C) Politics in the United States has become substantially more controversial since the introduction of television.  
 (D) Politics in the United States has been significantly changed by television.
11. The word "disseminated" in line 2 is closest in meaning to  
 (A) analyzed (B) discussed (C) spread (D) stored
12. It can be inferred that before the introduction of television, political parties  
 (A) had more influence over the selection of political candidates  
 (B) spent more money to promote their political candidates  
 (C) attracted more members  
 (D) received more money
13. The word "accelerated" in line 6 is closest in meaning to  
 (A) allowed (B) increased (C) required (D) started
14. The author mentions the "stump speech" in line 8 as an example of  
 (A) an event created by politicians to attract media attention  
 (B) an interactive discussion between two politicians  
 (C) a kind of political presentation typical of the nineteenth century  
 (D) a style of speech common to televised political events
15. The phrase "given way to" in line 10 is closest in meaning to  
 (A) added interest to (B) modified  
 (C) imitated (D) been replaced by
16. The word "that" in line 12 refers to  
 (A) audience (B) broadcast news  
 (C) politician (D) advertisement
17. According to the passage, as compared with televised speeches, traditional political discourse was more successful at  
 (A) allowing news coverage of political candidates  
 (B) placing political issues within a historical context  
 (C) making politics seem more intimate to citizens  
 (D) providing detailed information about a candidates private behavior
18. The author states that "politicians assert but do not argue" (line 18) in order to suggest that politicians  
 (A) make claims without providing reasons for the claims  
 (B) take stronger positions on issues than in the past  
 (C) enjoy explaining the issue to broadcasters  
 (D) dislike having to explain their own positions on issues to citizens
19. The word "Reliance" in line 21 is closest in meaning to  
 (A) abundance (B) clarification (C) dependence (D) information
20. The purpose of paragraph 4 is to suggest that  
 (A) politicians will need to learn to become more personal when meeting citizens

- (B) politicians who are considered very attractive are favored by citizens over politicians who are less attractive
- (C) citizens tend to favor a politician who analyzed the issue over one who does not
- (D) citizens will need to learn how to evaluate visual political images in order to become better informed

21. According to paragraph 5, staged political events are created so that politicians can

- (A) create more time to discuss political issues
- (B) obtain more television coverage for themselves
- (C) spend more time talking to citizens in person
- (D) engages in debates with their opponents

22. Which of the following statements is supported by the passage?

- (A) Political presentations today are more like advertisements than in the past.
- (B) Politicians today tend to be more familiar with the views of citizens than in the past.
- (C) Citizens today are less informed about a politician's character than in the past.
- (D) Political speeches today focus more on details about issues than in the past.

### Questions 23-33

The spectacular aurora light displays that appear in Earth's atmosphere around the north and south magnetic poles were once mysterious phenomena. Now, scientists have data from satellites and ground-based observations from which we know that the  
*Line* aurora brilliance is an immense electrical discharge similar to that occurring in a  
(5) neon sign.

To understand the cause of auroras, first picture the Earth enclosed by its magnetosphere, a huge region created by the Earth's magnetic field. Outside the magnetosphere, blasting toward the earth is the solar wind, a swiftly moving plasma of ionized gases with its own magnetic field. Charged particles in this solar wind speed  
(10) earthward along the solar wind's magnetic lines of force with a spiraling motion. The Earth's magnetosphere is a barrier to the solar winds, and forces the charged particles of the solar wind to flow around the magnetosphere itself. But in the polar regions, the magnetic lines of force of the Earth and of the solar wind bunch together. Here many of the solar wind's charged particles break through the magnetosphere and enter Earth's  
(15) magnetic field. They then spiral back and forth between the Earth's magnetic poles very rapidly. In the polar regions, electrons from the solar wind ionize and excite the atoms and molecules of the upper atmosphere, causing them to emit aurora radiations of visible light.

The colors of an aurora depend on the atoms emitting them. The dominant greenish  
(20) white light comes from low energy excitation of oxygen atoms. During huge magnetic storms oxygen atoms also undergo high energy excitation and emit a crimson light. Excited nitrogen atoms contribute bands of color varying from blue to violet.

Viewed from outer space, auroras can be seen as dimly glowing belts wrapped around each of the Earth's magnetic poles. Each aurora hangs like a curtain of light  
(25) stretching over the polar regions and into the higher latitudes. When the solar flares that result in magnetic storms and aurora activity are very intense, aurora displays may extend as far as the southern regions of the United States.

Studies of auroras have given physicists new information about the behavior of plasmas, which has helped to explain the nature of outer space and is being applied in  
(30) attempts to harness energy from the fusion of atoms.

23. What does the passage mainly discuss?  
 (A) The methods used to observe auroras from outer space  
 (B) The formation and appearance of auroras around the Earth's poles  
 (C) The factors that cause the variety of colors in auroras  
 (D) The periodic variation in the display of auroras
24. The word "phenomena" in line 2 is closest in meaning to  
 (A) ideas (B) stars (C) events (D) colors
25. The word "picture" in line 6 is closest in meaning to  
 (A) frame (B) imagine (C) describe (D) explain
26. The passage describes the magnetosphere as a barrier (line 11) because  
 (A) its position makes it difficult to be observed from Earth  
 (B) it prevents particles from the solar wind from easily entering Earth's atmosphere  
 (C) it increases the speed of particles from the solar wind  
 (D) it is strongest in the polar regions
27. The word "them" in line 17 refers to  
 (A) polar regions (B) electrons  
 (C) atoms and molecules (D) aurora radiations
28. According to the passage, which color appears most frequently in an aurora display?  
 (A) Greenish-white (B) Crimson (C) Blue (D) Violet
29. The word "emit" in line 21 is closest in meaning to  
 (A) change from (B) connect with (C) add to (D) give off
30. The word "glowing" in line 23 is closest in meaning to  
 (A) shining (B) moving (C) charging (D) hanging
31. Auroras may be seen in the southern regions of the United States when  
 (A) magnetic storms do not affect Earth  
 (B) solar flares are very intense  
 (C) the speed of the solar wind is reduced  
 (D) the excitation of atoms is low
32. The passage supports which of the following statements about scientists' understanding of auroras?  
 (A) Before advances in technology, including satellites, scientists knew little about auroras.  
 (B) New knowledge about the fusion of atoms allowed scientists to learn more about auroras.  
 (C) Scientists cannot explain the cause of the different colors in auroras.  
 (D) Until scientists learn more about plasma physics, little knowledge about auroras will be available.
33. Which of the following terms is defined in the passage?  
 (A) "magnetosphere" (line 7) (B) "electrons" (line 16)  
 (C) "ionize" (line 16) (D) "fusion" (line 30)

**Questions 34-44**

Matching the influx of foreign immigrants into the larger cities of the United States during the late nineteenth century was a domestic migration, from town and farm to city, within the United States. The country had been overwhelmingly rural at the beginning of the century, with less than 5 percent of Americans living in large towns or cities. The proportion of urban population began to grow remarkably after 1840, increasing from 11 percent that year to 28 percent by 1880 and to 46 percent by 1900. A country with only 6 cities boasting a population of more than 8,000 in 1800 had become one with 545 such cities in 1900. of these, 26 had a population of more than 100,000 including 3 that held more than a million people. Much of the migration producing an urban society came from smaller towns within the United States, but the combination of new immigrants and old American "settlers" on America's "urban frontier" in the late nineteenth century proved extraordinary.

The growth of cities and the process of industrialization fed on each other. The agricultural revolution stimulated many in the countryside to seek a new life in the city and made it possible for fewer farmers to feed the large concentrations of people needed to provide a workforce for growing numbers of factories. Cities also provided ready and convenient markets for the products of industry, and huge contracts in transportation and construction-as well as the expanded market in consumer goods-allowed continued growth of the urban sector of the overall economy of the United States.

Technological developments further stimulated the process of urbanization. One example is the Bessemer converter (an industrial process for manufacturing steel), which provided steel girders for the construction of skyscrapers. The refining of crude oil into kerosene, and later the development of electric lighting as well as of the telephone, brought additional comforts to urban areas that were unavailable to rural Americans and helped attract many of them from the farms into the cities. In every era the lure of the city included a major psychological element for country people; the bustle and social interaction of urban life seemed particularly intriguing to those raised in rural isolation.

34. What aspects of the United States in the nineteenth century does the passage mainly discuss?  
(A) Technological developments  
(B) The impact of foreign immigrants on cities  
(C) Standards of living  
(D) The relationship between industrialization and urbanization
35. The word "influx" in line 1 is closest in meaning to  
(A) working                      (B) processing                      (C) arrival                      (D) attraction
36. The paragraph preceding the passage most probably discuss  
(A) foreign immigration                      (B) rural life  
(C) the agricultural revolution                      (D) famous cities of the twentieth century



37. What proportion of population of the United States was urban in 1900?  
 (A) Five percent (B) Eleven percent  
 (C) Twenty-eight percent (D) Forty-six percent
38. The word "extraordinary" in line 12 is closest in meaning to  
 (A) expensive (B) exceptional (C) supreme (D) necessary
39. The phrase "each other" in line 13 refers to  
 (A) foreign immigrants and domestic migrants (B) farms and small towns  
 (C) growth of cities and industrialization (D) industry and transportation
40. The word "stimulated" in line 14 is closest in meaning to  
 (A) forced (B) prepared (C) limited (D) motivated
41. Why does the author mention "electric lighting" and "the telephone" in lines 24-25?  
 (A) They contributed to the agricultural revolution  
 (B) They are examples of the conveniences of city life  
 (C) They were developed by the same individual.  
 (D) They were products of the Bessemer converter.
42. The word "them" in line 26 refers to  
 (A) urban areas (B) rural Americans (C) farms (D) cities
43. The word "era" in line 26 is closest in meaning to  
 (A) period of time (B) location (C) action (D) unique situation
44. The word "intriguing" in line 28 is closest in meaning to  
 (A) profitable (B) attractive (C) comfortable (D) challenging

### Questions 45-50

The nervous system of vertebrates is characterized by a hollow, dorsal nerve cord that ends in the head region as an enlargement, the brain. Even in its most primitive form this cord and its attached nerves are the result of evolutionary specialization, and their further evolution from lower to higher vertebrate classes is a process that is far from fully understood. Nevertheless, the basic arrangements are similar in all vertebrates, and the study of lower animals gives insight into the form and structure of the nervous system of higher animals. Moreover, for any species, the study of the embryological development of the nervous system is indispensable for an understanding of adult morphology.

- (10) In any vertebrate two chief parts of the nervous system may be distinguished. These are the central nervous system (the nerve cord mentioned above), consisting of the brain and spinal cord, and the peripheral nervous system, consisting of the cranial, spinal, and peripheral nerves, together with their motor and sensory endings. The term "autonomic nervous system" refers to the parts of the central and peripheral systems that supply and regulate the activity of cardiac muscle, smooth muscle, and many glands.

The nervous system is composed of many millions of nerve and glial cells, together with blood vessels and a small amount of connective tissue. The nerve cells, or "neurons", are characterized by many processes and are specialized in that they exhibit

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(20) to a great degree the phenomena of irritability and conductivity. The glial cells of the central nervous system are supporting cells collectively termed "neuroglia". They are characterized by short processes that have special relationships to neurons, blood vessels, and connective tissue. The comparable cells in the peripheral nervous system are termed "neurilemmal" cells.

45. What does the passage mainly discuss?  
(A) The parts of a neuron (B) The structure of animals' nerve  
(C) The nervous system of vertebrates (D) The development of the brain
46. According to the passage, the nerve cord of vertebrates is  
(A) large (B) hollow (C) primitive (D) embryological
47. The author implies that a careful investigation of a biological structure in an embryo may  
(A) Improved research of the same structure in other species  
(B) A better understanding of the fully developed structure  
(C) Discovering ways in which poor development can be corrected  
(D) A method by which scientists can document the various stages of development
48. The two main parts of the central nervous system are the brain and the  
(A) sensory endings (B) cranial nerve (C) spinal cord (D) peripheral nerves
49. All of the following are described as being controlled by the autonomic nervous system EXCEPT  
(A) connective tissue (B) cardiac muscle (C) glandular activity (D) smooth muscle
50. In what lines does the author identify certain characteristic of nerve cells?  
(A) 1-2 (B) 10-13 (C) 13-16 (D) 18-20

# PRACTICE TEST 20

## August 1999

### Questions 1-10

Perhaps the most obvious way artistic creation reflect how people live is by mirroring the environment-the materials and technologies available to a culture. Stone, wood, tree bark, clay, and sand are generally available materials. In addition, depending on the locality, other resources may be accessible: shells, horns, gold, copper, and silver. The different uses to which societies put these materials are of interest to anthropologists who may ask, for example, why a people chooses to use clay and not copper when both items are available. Although there are no conclusive answers yet, the way in which a society views its environment is sometimes apparent in its choice and use of artistic materials. The use of certain metals, for example, may be reserved for ceremonial objects of special importance. Or the belief in the supernatural powers of a stone or tree may cause a sculptor to be sensitive to that material.

What is particularly meaningful to anthropologist is the realization that although the materials available to a society may to some extent limit or influence what it can do artistically, the materials by no means determine what is done. Why does the artist in Japanese society rake sand into patterns; and the artist in Roman society melt sand to form glass? Moreover, even when the same material is used in the same way by members of different societies, the form or style of the work varies enormously from culture to culture. A society may simply choose to represent objects or phenomena that are important to its population. An examination of the art of the Middle Ages tells us something about the medieval preoccupation with theological doctrine. In addition to revealing the primary concerns of a society, the content of that society's art may also reflect the culture's social stratification.

1. According to the passage, gold, copper, and silver are
  - (A) more difficult to handle than wood and stone
  - (B) commonly used by artists in all societies
  - (C) essential to create ceremonial objects
  - (D) available only in specific locations
2. The word "conclusive" in line 7 is closest in meaning to
  - (A) definitive
  - (B) controversial
  - (C) concurrent
  - (D) realistic
3. The word "apparent" in line 8 is closest in meaning to
  - (A) attractive
  - (B) logical
  - (C) evident
  - (D) distinct
4. Why does the author mention the "supernatural powers of a stone or tree" in line 11?
  - (A) To show that some sculptors avoid working with specific materials
  - (B) To emphasize the unusual properties of certain materials
  - (C) As an example of how art can be influenced by cultural beliefs
  - (D) As an illustration of the impact of the environment on religious beliefs
5. The word "it" in line 14 refers to
  - (A) realization
  - (B) society
  - (C) extent
  - (D) influence

6. It can be inferred that the author mentions the Japanese and Roman societies because  
(A) they influenced each other  
(B) of their stable social conditions  
(C) of the unique stylistic features of their art  
(D) they used the same artistic material in very different ways
7. According to the passage, all of the following statements about sand are true EXCEPT  
(A) It is used to create glass.  
(B) Roman artists mix it into their paints.  
(C) Its use varies from culture to culture.  
(D) Japanese artists use it to create artistic patterns.
8. The word "Moreover" in line 17 is closest in meaning to  
(A) similarly                      (B) in addition                      (C) in contrast                      (D) frequently
9. The word "preoccupation" in line 21 is closest in meaning to  
(A) involvement                      (B) separation                      (C) relationship                      (D) argument
10. The word "primary" in line 22 is closest in meaning to  
(A) discrete                      (B) preliminary                      (C) ideal                      (D) fundamental

### Questions 11-22

- Fungi, of which there are over 100,000 species, including yeasts and other single-celled organisms as well as the common molds and mushrooms, were formerly classified as members of the plant kingdom. However, in reality they are very different from plants and today they are placed in a separate group altogether.
- Line*
- (5) The principal reason for this is that none of them possesses chlorophyll, and since they cannot synthesize their own carbohydrates, they obtain their supplies either from the breakdown of dead organic matter or from other living organisms. Furthermore the walls of fungal cells are not made of cellulose, as those of plants are, but of another complex sugarlike polymer called chitin, the material from which
- (10) the hard outer skeletons of shrimps, spiders, and insects are made. The difference between the chemical composition of the cell walls of fungi and those of plants is of enormous importance because it enables the tips of the growing hyphae, the threadlike cells of the fungus, to secrete enzymes that break down the walls of plant cells without having any effect on those of the fungus itself. It is these cellulose –
- (15) destroying enzymes that enable fungi to attack anything made from wood, wood pulp, cotton, flax, or other plant material.

- The destructive power of fungi is impressive. They are a major cause of structural damage to building timbers, a cause of disease in animals and humans, and one of the greatest causes of agricultural losses. Entire crops can be wiped out by fungal
- (20) attacks both before and after harvesting. Some fungi can grow at + 50°C, while others can grow at -5°C, so even food in cold storage may not be completely safe from them. On the other hand, fungi bring about the decomposition of dead organic matter, thus enriching the soil and returning carbon dioxide to the atmosphere. They also enter into a number of mutually beneficial relationships with plants and other
- (25) organisms. In addition, fungi are the source of many of the most potent antibiotics used in clinical medicine, including penicillin.

11. What does paragraph 1 mainly discuss?  
 (A) Differences between simply and complex fungi  
 (B) Functions of chlorophyll in plants  
 (C) Functions of sugar in the walls of fungal cells  
 (D) Differences between fungi and plants
12. Which of the following is mentioned as a major change in how scientists approach the study of fungi?  
 (A) Fungi are no longer classified as plants  
 (B) Some single-cell organisms are no longer classified as fungi.  
 (C) New methods of species identification have been introduced  
 (D) Theories about the chemical composition of fungi have been revised.
13. The word "principal" in line 5 is closest in meaning to  
 (A) true (B) main (C) logical (D) obvious
14. According to the passage, how do fungi obtain carbohydrates?  
 (A) They absorb carbohydrates from their own cell walls.  
 (B) They synthesize chlorophyll to produce carbohydrates.  
 (C) They produce carbohydrates by breaking down chitin.  
 (D) They acquire carbohydrates from other organic matter, both living and dead.
15. The passage mentions shrimps, spiders, and insects in line 10 because their skeletons  
 (A) can be destroyed by fungi  
 (B) have unusual chemical compositions  
 (C) contain a material found in the walls of fungal cells  
 (D) secrete the same enzymes as the walls of fungal cells do
16. Which of the following terms is defined in the passage?  
 (A) "chlorophyll" (line 5) (B) "polymer" (line 9)  
 (C) "hyphae" (line 12) (D) "enzymes" (line 13)
17. The word "those" in line 14 refers to  
 (A) tips (B) hyphae (C) enzymes (D) walls
18. Fungi have all of the following characteristics EXCEPT  
 (A) They grow hyphae. (B) They secrete enzymes.  
 (C) They synthesize cellulose. (D) They destroy crops.
19. The word "Entire" in line 19 is closest in meaning to  
 (A) certain (B) whole (C) mature (D) diseased
20. The passage describes the negative effects of fungi on all the following EXCEPT  
 (A) buildings (B) animals (C) food (D) soil
21. The phrase "bring about" in line 22 is closest in meaning to  
 (A) cause (B) join (C) take (D) include
22. The passage mentions "penicillin" in line 26 as an example of  
 (A) a medicine derived from plants  
 (B) a beneficial use of fungi  
 (C) a product of the relationship between plants and fungi  
 (D) a type of fungi that grows at extreme temperatures.

Questions 23-33

The history of clinical nutrition, or the study of the relationship between health and how the body takes in and utilizes food substances, can be divided into four distinct eras: the first began in the nineteenth century and extended into the early  
*Line* twentieth century when it was recognized for the first time that food contained  
(5) constituents that were essential for human function and that different foods provided different amounts of these essential agents. Near the end of this era, research studies demonstrated that rapid weight loss was associated with nitrogen imbalance and could only be rectified by providing adequate dietary protein associated with certain foods.

(10) The second era was initiated in the early decades of the twentieth century and might be called "the vitamin period." Vitamins came to be recognized in foods, and deficiency syndromes were described. As vitamins became recognized as essential food constituents necessary for health, it became tempting to suggest that every disease and condition for which there had been no previous effective treatment might  
(15) be responsive to vitamin therapy. At that point in time, medical schools started to become more interested in having their curricula integrate nutritional concepts into the basic sciences. Much of the focus of this education was on the recognition of vitamin deficiency symptoms. Herein lay the beginning of what ultimately turned from ignorance to denial of the value of nutritional therapies in medicine. Reckless  
(20) claims were made for effects of vitamins that went far beyond what could actually be achieved from the use of them.

In the third era of nutritional history in the early 1950's to mid-1960's, vitamin therapy began to fall into disrepute. Concomitant with this, nutrition education in medical schools also became less popular. It was just a decade before this that many  
(25) drug companies had found their vitamin sales skyrocketing and were quick to supply practicing physicians with generous samples of vitamins and literature extolling the virtue of supplementation for a variety of health-related conditions. Expectations as to the success of vitamins in disease control were exaggerated. As is known in retrospect, vitamin and mineral therapies are much less effective when applied to  
(30) health-crisis conditions than when applied to long-term problems of under nutrition that lead to chronic health problems.

23. What does the passage mainly discuss?

- (A) The effects of vitamins on the human body
- (B) The history of food preferences from the nineteenth century to the present
- (C) The stages of development of clinical nutrition as a field of study
- (D) Nutritional practices of the nineteenth century

24. It can be inferred from the passage that which of the following discoveries was made during the first era in the history of nutrition?

- (A) Protein was recognized as an essential component of diet.
- (B) Vitamins were synthesized from foods.
- (C) Effective techniques of weight loss were determined.
- (D) Certain foods were found to be harmful to good health.

25. The word "tempting" in line 13 is closest in meaning to

- (A) necessary                      (B) attractive                      (C) realistic                      (D) correct

26. It can be inferred from the passage that medical schools began to teach concepts of nutrition in order to  
 (A) convince medical doctors to participate in research studies on nutrition  
 (B) encourage medical doctors to apply concepts of nutrition in the treatment of disease  
 (C) convince doctors to conduct experimental vitamin therapies on their patients  
 (D) support the creation of artificial vitamins
27. The word "Reckless" in line 19 is closest in meaning to  
 (A) recorded                      (B) irresponsible                      (C) informative                      (D) urgent
28. The word "them" in line 21 refers to  
 (A) therapies                      (B) claims                      (C) effects                      (D) vitamins
29. Why did vitamin therapy begin losing favor in the 1950's  
 (A) The public lost interest in vitamins.  
 (B) Medical schools stopped teaching nutritional concepts.  
 (C) Nutritional research was of poor quality  
 (D) Claims for the effectiveness of vitamin therapy were seen to be exaggerated.
30. The phrase "concomitant with" in line 23 is closest in meaning to  
 (A) in conjunction with                      (B) prior to                      (C) in dispute with                      (D) in regard to
31. The word "skyrocketing" in line 25 is closest in meaning to  
 (A) internationally popular                      (B) increasing rapidly  
 (C) acceptable                      (D) surprising
32. The word "extolling" in line 26 is closest in meaning to  
 (A) analyzing                      (B) questioning                      (C) praising                      (D) promising
33. The paragraph following the passage most probably discusses  
 (A) the fourth era of nutrition history                      (B) problems associated with undernutrition  
 (C) how drug companies became successful                      (D) why nutrition education lost its appeal

### Questions 34-43

The observation of the skies has played a special part in the lives and cultures of peoples since the earliest of times. Evidence obtained from a site known as the Hole in the Rock, in Papago Park in Phoenix, Arizona, indicates that it might have been  
*Line* used as an observatory by a prehistoric people known as the Hohokam.

- (5) The physical attributes of the site allow its use as a natural calendar/clock. The "hole" at Hole in the Rock is formed by two large overhanging rocks coming together at a point, creating a shelter with an opening large enough for several persons to pass through. The northeast-facing overhang has a smaller opening in its roof. It is this smaller hole that produces the attributes that may have been used as a  
 (10) calendar clock.

Because of its location in the shelter's roof, a beam of sunlight can pass through this second hole and cast a spot onto the shelter's wall and floor. This spot of light travels from west to east as the sun moves across the sky. It also moves from north to south and back again as the Earth travels around the Sun. the west-to-east

- (15) movement could have been used to establish a daily clock, much like a sundial, while the north-to-south movement could have been used to establish a seasonal calendar.

- The spot first appears and starts down the surface of the wall of the shelter at different times of the morning depending on the time of the year. The spot grows in size from its first appearance until its maximum size is achieved roughly at midday. It then continues its downward movement until it reaches a point where it jumps to the floor of the shelter. As the Sun continues to move to the west, the spot continues to move across the shelter floor and down the butte, or hill, toward a group of small boulders. If a person is seated on a certain one of these rocks as the spot reaches it, the Sun can be viewed through the calendar hole. This occurs at different times in the afternoon depending on the time of year.

34. What does the passage mainly discuss?  
(A) Observations of the stars by ancient people  
(B) Rock formations of Arizona  
(C) A site used by ancient people to measure time  
(D) The movement of the Earth around the Sun
35. The word "obtained" in line 2 is closest in meaning to  
(A) acquired                      (B) transported                      (C) covered                      (D) removed
36. The word "attributes" in line 5 is closest in meaning to  
(A) changes                      (B) characteristics                      (C) locations                      (D) dimensions
37. The word "its" in line 11 refers to  
(A) roof                      (B) beam                      (C) hole                      (D) spot
38. The word "establish" in line 15 is closest in meaning to  
(A) create                      (B) locate                      (C) consult                      (D) choose
39. Which of the following is NOT true of the spot of light?  
(A) It is caused by sunlight passing through a hole.  
(B) It travels across the roof of the shelter.  
(C) Its movement is affected by the position of the Sun.  
(D) Its movement could have been used to estimate the time of day.
40. From which of the following can the time of year be determined?  
(A) The movement of the spot of light from west to east  
(B) The speed with which the spot of light moves  
(C) The movement of the spot of light from north to south  
(D) The size of the spot of light at midday
41. The word "roughly" in line 20 is closest in meaning to  
(A) finally                      (B) harshly                      (C) uneasily                      (D) approximately
42. The passage mentions that the Hole in the Rock was used as all of the following EXCEPT  
(A) a calendar                      (B) a home                      (C) a clock                      (D) an observatory
43. Which of the following can be inferred from the fourth paragraph?  
(A) The boulders are located below the rock shelter.  
(B) The person seated on the rock cannot see the shelter.  
(C) After it passes the boulders, the spot of light disappears.  
(D) The spot of light is largest when it first appears.



**Questions 44-50**

By the turn of the century, the middle-class home in North America had been transformed. "The flow of industry has passed and left idle the loom in the attic, the soap kettle in the shed," Ellen Richards wrote in 1908. The urban middle class was now able to buy a wide array of food products and clothing-baked goods, canned goods, suits, shirts, shoes, and dresses. Not only had household production waned, but technological improvements were rapidly changing the rest of domestic work. Middle-class homes had indoor running water and furnaces, run on oil, coal, or gas, that produced hot water. Stoves were fueled by gas, and delivery services provided ice for refrigerators. Electric power was available for lamps, sewing machines, irons, and even vacuum cleaners. No domestic task was unaffected. Commercial laundries, for instance, had been doing the wash for urban families for decades; by the early 1900's the first electric washing machines were on the market.

One impact of the new household technology was to draw sharp dividing lines between women of different classes and regions. Technological advances always affected the homes of the wealthy first, filtering downward into the urban middle class. But women who lived on farms were not yet affected by household improvements. Throughout the nineteenth century and well into the twentieth, rural homes lacked running water and electric power. Farm women had to haul large quantities of water into the house from wells or pumps for every purpose. Doing the family laundry, in large vats heated over stoves, continued to be a full day's work, just as canning and preserving continued to be seasonal necessities. Heat was provided by wood or coal stoves. In addition, rural women continued to produce most of their families' clothing. The urban poor, similarly, reaped few benefits from household improvements. Urban slums such as Chicago's nineteenth ward often had no sewers, garbage collection, or gas or electric lines; and tenements lacked both running water and central heating. At the turn of the century, variations in the nature of women's domestic work were probably more marked than at any time before.

44. What is the main topic of the passage?

- (A) The creation of the urban middle class
- (B) Domestic work at the turn of the century
- (C) The spread of electrical power in the United States
- (D) Overcrowding in American cities.

45. According to the passage, what kind of fuel was used in a stove in a typical middle-class household?

- (A) oil
- (B) coal
- (C) gas
- (D) wood

46. Which of the following is NOT mentioned as a household convenience in the passage?

- (A) the electric fan
- (B) the refrigerator
- (C) the electric light
- (D) the washing machine

47. According to the passage, who were the first beneficiaries of technological advances?

- (A) Farm women
- (B) The urban poor

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(C) The urban middle class

(D) The wealthy

**48.** The word "reaped" in line 23 is closest in meaning to

(A) gained

(B) affected

(C) wanted

(D) accepted

**49.** Which of the following best characterizes the passage's organization?

(A) analysis of a quotation

(B) chronological narrative

(C) extended definition

(D) comparison and contrast

**50.** Where in the passage does the author discuss conditions in poor urban neighborhoods?

(A) lines 3-5

(B) lines 7-8

(C) lines 9-10

(D) lines 24-26

# PRACTICE TEST 21

## October 1999

### Questions 1-10

Potash (the old name for potassium carbonate) is one of the two alkalis (the other being soda, sodium carbonate) that were used from remote antiquity in the making of glass, and from the early Middle Ages in the making of soap: the former being the product of heating a mixture of alkali and sand, the latter a product of alkali and vegetable oil. Their importance in the communities of colonial North America need hardly be stressed.

Potash and soda are not interchangeable for all purposes, but for glass-or soapmaking either would do. Soda was obtained largely from the ashes of certain Mediterranean sea plants, potash from those of inland vegetation. Hence potash was more familiar to the early European settlers of the North American continent. The settlement at Jamestown in Virginia was in many ways a microcosm of the economy of colonial North America, and potash was one of its first concerns. It was required for the glassworks, the first factory in the British colonies, and was produced in sufficient quantity to permit the inclusion of potash in the first cargo shipped out of Jamestown. The second ship to arrive in the settlement from England included among its passengers experts in potash making.

The method of making potash was simple enough. Logs was piled up and burned in the open, and the ashes collected. The ashes were placed in a barrel with holes in the bottom, and water was poured over them. The solution draining from the barrel was boiled down in iron kettles. The resulting mass was further heated to fuse the mass into what was called potash.

In North America, potash making quickly became an adjunct to the clearing of land for agriculture, for it was estimated that as much as half the cost of clearing land could be recovered by the sale of potash. Some potash was exported from Maine and New Hampshire in the seventeenth century, but the market turned out to be mainly domestic, consisting mostly of shipments from the northern to the southern colonies. For despite the beginning of the trade at Jamestown and such encouragements as a series of acts "to encourage the making of potash," beginning in 1707 in South Carolina, the softwoods in the South proved to be poor sources of the substance.

1. What aspect of potash does the passage mainly discuss?  
(A) How it was made  
(B) Its value as a product for export  
(C) How it differs from other alkalis  
(D) Its importance in colonial North America
2. All of the following statements are true of both potash and soda EXCEPT:  
(A) They are alkalis.  
(B) They are made from sea plants.  
(C) They are used in making soap.  
(D) They are used in making glass.
3. The phrase "the latter" in line 4 refers to  
(A) alkali  
(B) glass  
(C) sand  
(D) soap
4. The word "stressed" in line 6 is closest in meaning to  
(A) defined  
(B) emphasized  
(C) adjusted  
(D) mentioned
5. The word "interchangeable" in line 7 is closest in meaning to  
(A) convenient  
(B) identifiable  
(C) equivalent  
(D) advantageous

6. It can be inferred from the passage that potash was more common than soda in colonial North America because
- (A) the materials needed for making soda were not readily available
  - (B) making potash required less time than making soda
  - (C) potash was better than soda for making glass and soap
  - (D) the colonial glassworks found soda more difficult to use
7. According to paragraph 4, all of the following were needed for making potash EXCEPT
- (A) wood
  - (B) fire
  - (C) sand
  - (D) water
8. The word "adjunct" in line 22 is closest in meaning to
- (A) addition
  - (B) answer
  - (C) problem
  - (D) possibility
9. According to the passage, a major benefit of making potash was that
- (A) it could be exported to Europe in exchange for other goods
  - (B) it helped finance the creation of farms
  - (C) it could be made with a variety of materials
  - (D) stimulated the development of new ways of glassmaking
10. According to paragraph 5, the softwoods in the South posed which of the following problems for southern settlers?
- (A) The softwoods were not very plentiful.
  - (B) The softwoods could not be used to build houses.
  - (C) The softwoods were not very marketable.
  - (D) The softwoods were not very useful for making potash.

### Questions 11-21

The first flying vertebrates were true reptiles in which one of the fingers of the front limbs became very elongated, providing support for a flap of stretched skin that served as a wing. These were the pterosaurs, literally the "winged lizards." The earliest pterosaurs arose near the end of the Triassic period of the Mesozoic Era, some 70 million years before the first known fossils of true birds occur, and they presumably dominated the skies until they were eventually displaced by birds. Like the dinosaurs, some the pterosaurs became gigantic; the largest fossil discovered is of an individual that had a wingspan of 50 feet or more, larger than many airplanes. These flying reptiles had large, tooth-filled jaws, but their bodies were small and probably without the necessary powerful muscles for sustained wing movement. They must have been expert gliders, not skillful fliers, relying on wind power for their locomotion.

Birds, despite sharing common reptilian ancestors with pterosaurs, evolved quite separately and have been much more successful in their dominance of the air. They are an example of a common theme in evolution, the more or less parallel development of different types of body structure and function for the same reason—in this case, for flight. Although the fossil record, as always, is not complete enough to determine definitively the evolutionary lineage of the birds or in as much detail as one would like, it is better in this case than for many other animal groups. That is because of the unusual preservation in a limestone quarry in southern Germany of *Archaeopteryx*, a fossil that many have called the link between dinosaurs and birds. Indeed, had it not been for the superb preservation of these fossils, they might well have been classified as dinosaurs. They have the skull and teeth of a reptile as well as a bony tail, but in the line-grained limestone in which these fossils occur there are delicate impressions of feathers and fine details of bone structure that make it clear that *Archaeopteryx* was a

- (25) bird. All birds living today, from the great condors of the Andes to the tiniest wrens, trace their origin back to the Mesozoic dinosaurs.
11. What does the passage mainly discuss?  
 (A) Characteristics of pterosaur wings  
 (B) The discovery of fossil remains of Archaeopteryx  
 (C) Reasons for the extinction of early flying vertebrates  
 (D) The development of flight in reptiles and birds
12. Which of the following is true of early reptile wings?  
 (A) They evolved from strong limb muscles. (B) They consisted of an extension of skin.  
 (C) They connected the front and back limbs. (D) They required fingers of equal length.
13. The word "literally" in line 3 is closest in meaning to  
 (A) creating (B) meaning (C) related to (D) simplified
14. It can be inferred from the passage that birds were probably dominant in the skies  
 (A) in the early Triassic period (B) before the appearance of pterosaurs  
 (C) after the decline of pterosaurs (D) before dinosaurs could be found on land.
15. The author mentions airplanes in line 8 in order to  
 (A) illustrate the size of wingspans in some pterosaurs  
 (B) compare the energy needs of dinosaurs with those of modern machines  
 (C) demonstrate the differences between mechanized flight and animal flight  
 (D) establish the practical applications of the study of fossils
16. The word "They" in line 10 refers to  
 (A) powerful muscles (B) bodies (C) jaws (D) flying reptiles
17. According to the passage, pterosaurs were probably "not skillful fliers" (line 11) because  
 (A) of their limited wingspan  
 (B) of their disproportionately large bodies  
 (C) they lacked muscles needed for extended flight  
 (D) climate conditions of the time provided insufficient wind power
18. In paragraph 2, the author discusses the development of flight in birds as resulting from  
 (A) a similarity in body structure to pterosaurs  
 (B) an evolution from pterosaurs  
 (C) the dominance of birds and pterosaurs over land animals  
 (D) a separate but parallel development process to that of pterosaurs
19. The word "classified" in line 21 is closest in meaning to  
 (A) perfected (B) replaced (C) categorized (D) protected
20. Which of the following helped researchers determine that Archaeopteryx was not a dinosaurs?  
 (A) Its tail (B) Its teeth  
 (C) The shape of its skull (D) Details of its bone structure
21. What is the significance of the discovery that was made in southern Germany?  
 (A) It is thought to demonstrate that birds evolved from dinosaurs.  
 (B) It is proof that the climate and soils of Europe have changed over time.  
 (C) It suggests that dinosaurs were dominant in areas rich in limestone.  
 (D) It supports the theory that Archaeopteryx was a powerful dinosaur.

Questions 22-31

In July of 1994, an astounding series of events took place. The world anxiously watched as, every few hours, a hurtling chunk of comet plunged into the atmosphere of Jupiter. All of the twenty-odd fragments, collectively called comet Shoemaker-Levy 9 after its discoverers, were once part of the same object, now dismembered and strung out along the same orbit. This cometary train, glistening like a string of pearls, had been first glimpsed only a few months before its fateful impact with Jupiter, and rather quickly scientists had predicted that the fragments were on a collision course with the giant planet. The impact caused an explosion clearly visible from Earth, a bright flaming fire that quickly expanded as each icy mass incinerated itself. When each fragment slammed at 60 kilometers per second into the dense atmosphere, its immense kinetic energy was transformed into heat, producing a superheated fireball that was ejected back through the tunnel the fragment had made a few seconds earlier. The residues from these explosions left huge black marks on the face of Jupiter, some of which have stretched out to form dark ribbons.

Although this impact event was of considerable scientific import, it especially piqued public curiosity and interest. Photographs of each collision made the evening television newscast and were posted on the Internet. This was possibly the most open scientific endeavor in history. The face of the largest planet in the solar system was changed before our very eyes. And for the very first time, most of humanity came to fully appreciate the fact that we ourselves live on a similar target, a world subject to catastrophe by random assaults from celestial bodies. That realization was a surprise to many, but it should not have been. One of the great truths revealed by the last few decades of planetary exploration is that collisions between bodies of all sizes are relatively commonplace, at least in geologic terms, and were even more frequent in the early solar system.

22. The passage mentions which of the following with respect to the fragments of comet Shoemaker-Levy 9?  
(A) They were once combine in a larger body.  
(B) Some of them burned up before entering the atmosphere of Jupiter.  
(C) Some of them are still orbiting Jupiter.  
(D) They have an unusual orbit.
23. The word "collectively" in line 3 is closest in meaning to  
(A) respectively                      (B) popularly                      (C) also                      (D) together
24. The author compares the fragments of comet Shoemaker-Levy 9 to all of the following EXCEPT  
(A) a dismembered body                      (B) a train  
(C) a pearl necklace                      (D) a giant planet
25. Before comet Shoemaker-Levy 9 hit Jupiter in July 1994, scientists  
(A) had been unaware of its existence  
(B) had been tracking it for only a few months  
(C) had observed its breakup into twenty-odd fragments  
(D) had decided it would not collide with the planet
26. Before the comet fragments entered the atmosphere of Jupiter, they were most likely  
(A) invisible                      (B) black                      (C) frozen                      (D) exploding

27. Superheated fireballs were produced as soon as the fragments of comet shoemaker-Levy 9  
 (A) hit the surface of Jupiter (B) were pulled into Jupiter's orbit  
 (C) were ejected back through the tunnel (D) entered the atmosphere of Jupiter
28. The phrase "incinerated itself" in line 9 is closest in meaning to  
 (A) burned up (B) broke into smaller pieces  
 (C) increased its speed (D) grew in size
29. Which of the following is mentioned as evidence of the explosions that is still visible on Jupiter?  
 (A) fireballs (B) ice masses (C) black marks (D) tunnels
30. Paragraph 2 discusses the impact of the comet Shoemaker-levy 9 primarily in terms of  
 (A) its importance as an event of-great scientific significance  
 (B) its effect on public awareness of the possibility of damage to Earth  
 (C) the changes it made to the surface of Jupiter  
 (D) the effect it had on television broadcasting
31. The "target" in line 20 most probably referred to  
 (A) Earth (B) Jupiter (C) the solar system (D) a comet

### Questions 32-42

The year 1850 may be considered the beginning of a new epoch in America art, with respect to the development of watercolor painting. In December of that year, a group of thirty artists gathered in the studio of John Falconer in New York City and  
*Line* drafted both a constitution and bylaws, establishing The Society for the Promotion  
 (5) of Painting in Water Color. In addition to securing an exhibition space in the Library Society building in lower Manhattan, the society founded a small school for the instruction of watercolor painting. Periodic exhibitions of the members' paintings also included works by noted English artists of the day, borrowed from embryonic private collections in the city. The society's activities also included organized  
 (10) sketching excursions along the Hudson River. Its major public exposure came in 1853, when the society presented works by its members in the "Industry of All Nations" section of the Crystal Palace Exposition in New York.

The society did not prosper, however, and by the time of its annual meeting in 1854 membership had fallen to twenty-one. The group gave up its quarters in the  
 (15) Library Society building and returned to Falconer's studio, where it broke up amid dissension. No further attempt to formally organize the growing numbers of watercolor painters in New York City was made for more than a decade. During that decade, though, Henry Warren's *Painting in Water Color* was published in New York City in 1856-the book was a considerable improvement over the only other manual of  
 (20) instruction existing at the time, *Elements of Graphic Art*, by Archibald Robertson, published in 1802 and by the 1850's long out of print.

In 1866 the National Academy of Design was host to an exhibition of watercolor painting in its elaborate neo-Venetian Gothic building on Twenty-Third Street in New York City. The exhibit was sponsored by an independent group called The Artists  
 (25) Fund Society. Within a few months of this event, forty-two prominent artists living in and near New York City founded The American Society of Painters in Water Colors.

32. This passage is mainly about

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- (A) the most influential watercolor painters in the mid-1800's
  - (B) efforts to organize watercolor painters in New York City during the mid-1800's
  - (C) a famous exhibition of watercolor paintings in New York City in the mid-1800's
  - (D) styles of watercolor painting in New York City during the mid-1800's
- 33.** The year 1850 was significant in the history of watercolor painting mainly because
- (A) a group of artists established a watercolor-painting society
  - (B) watercolor painting was first introduced to New York City
  - (C) John Falconer established his studio for watercolor painters
  - (D) The first book on watercolor painting was published
- 34.** The word "securing" in line 5 is closest in meaning to
- (A) locking
  - (B) creating
  - (C) constructing
  - (D) acquiring
- 35.** All of the following can be inferred about the Society for the promotion of Painting in Water Color EXCEPT:
- (A) The society exhibited paintings in lower Manhattan.
  - (B) Instruction in watercolor painting was offered by members of the society
  - (C) The society exhibited only the paintings of its members.
  - (D) Scenes of the Hudson River appeared often in the work of society members.
- 36.** The exhibition at the Crystal Palace of the works of the Society for the Promotion of Painting in Water Color was significant for which of the following reasons?
- (A) It resulted in a dramatic increase in the popularity of painting with watercolor.
  - (B) It was the first time an exhibition was funded by a private source.
  - (C) It was the first important exhibition of the society's work.
  - (D) It resulted in a large increase in the membership of the society.
- 37.** The word "it" in line 15 refers to
- (A) time
  - (B) group
  - (C) building
  - (D) studio
- 38.** Which of the following is true of watercolor painters in New York City in the late 1850's?
- (A) They increased in number despite a lack of formal organization.
  - (B) They were unable to exhibit their paintings because of the lack of exhibition space.
  - (C) The Artists Fund Society helped them to form The American Society of Painters in Water Colors.
  - (D) They formed a new society because they were not allowed to join groups run by other kinds of artists.
- 39.** Henry Warren's *Painting in Water Color* was important to artists because it
- (A) received an important reward
  - (B) was the only textbook published that taught painting
  - (C) was much better than an earlier published
  - (D) attracted the interest of art collectors
- 40.** The word "considerable" in line 19 is closest in meaning to
- (A) sensitive
  - (B) great
  - (C) thoughtful
  - (D) planned
- 41.** The year 1866 was significant for watercolor painting for which of the following reasons?
- (A) *Elements of Graphic Art* was republished.
  - (B) Private collections of watercolors were first publicly exhibited.
  - (C) The neo-Venetian Gothic building on Twenty-Third Street in New York City was built.
  - (D) The National Academy of Design held an exhibition of watercolor paintings.
- 42.** The word "prominent" in line 25 is closest in meaning to
- (A) wealthy
  - (B) local
  - (C) famous
  - (D) organized



### Questions 43-50

Pennsylvania's colonial ironmasters forged iron and a revolution that had both industrial and political implications. The colonists in North America wanted the right to the profits gained from their manufacturing. However, England wanted all of the colonies' rich ores and raw materials to feed its own factories, and also wanted the colonies to be a market for its finished goods. England passed legislation in 1750 to prohibit colonists from making finished iron products, but by 1771, when entrepreneur Mark Bird established the Hopewell blast furnace in Pennsylvania, iron making had become the backbone of American industry. It also had become one of the major issues that fomented the revolutionary break between England and the British colonies. By the time the War of Independence broke out in 1776, Bird, angered and determined, was manufacturing cannons and shot at Hopewell to be used by the Continental Army.

After the war, Hopewell, along with hundreds of other "iron plantations," continued to form the new nation's industrial foundation well into the nineteenth century. The rural landscape became dotted with tall stone pyramids that breathed flames and smoke, charcoal-fueled iron furnaces that produced the versatile metal so crucial to the nation's growth. Generations of ironmasters, craftspeople, and workers produced goods during war and peace-ranging from cannons and shot to domestic items such as cast-iron stoves, pots, and sash weights for windows.

The region around Hopewell had everything needed for iron production: a wealth of iron ore near the surface, limestone for removing impurities from the iron, hardwood forests to supply the charcoal used for fuel, rushing water to power the bellows that pumped blasts of air into the furnace fires, and workers to supply the labor. By the 1830's, Hopewell had developed a reputation for producing high quality cast-iron stoves, for which there was a steady market. As Pennsylvania added more links to its transportation system of roads, canals, and railroads, it became easier to ship parts made by Hopewell workers to sites all over the east coast. There they were assembled into stoves and sold from Rhode Island to Maryland as the "Hopewell stove". By the time the last fires burned out at Hopewell ironworks in 1883, the community had produced some 80,000 cast-iron stoves.

43. The word "implications" in line 2 is closest in meaning to  
 (A) significance                      (B) motives                      (C) foundations                      (D) progress
44. It can be inferred that the purpose of the legislation passed by England in 1750 was to  
 (A) reduce the price of English-made iron goods sold in the colonies  
 (B) prevent the outbreak of the War of Independence  
 (C) require colonists to buy manufactured  
 (D) keep the colonies from establishing new markets for their raw materials.
45. The author compares iron furnaces to which of the following?  
 (A) Cannons                      (B) Pyramids                      (C) Pots                      (D) Windows
46. The word "rushing" in line 21 is closest in meaning to

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- (A) reliable                      (B) fresh                      (C) appealing                      (D) rapid

**47.** Pennsylvania was an ideal location for the Hopewell ironworks for all of the following reasons EXCEPT

- (A) Many workers were available in the area.
- (B) The center of operations of the army was nearby.
- (C) The metal ore was easy to acquire
- (D) There was an abundance of wood.

**48.** The passage mentions "roads, canals, and railroads" in line 25 in order to explain that

- (A) improvements in transportation benefited the Hopewell ironworks
- (B) iron was used in the construction of various types of transportation
- (C) the transportation system of Pennsylvania was superior to that of other states.
- (D) Hopewell never became a major transportation center

**49.** The word "they" in line 26 refers to

- (A) links                      (B) parts                      (C) workers                      (D) sites

**50.** The word "some" in line 29 is closest in meaning to

- (A) only                      (B) a maximum of                      (C) approximately                      (D) a variety of

# PRACTICE TEST 22

## January 1998

### Question 1-9

Although social changes in the United States were being wrought throughout most of the nineteenth-century, public awareness of the changes increased to new levels in the 1890's. The acute, growing public awareness of the social changes that had been taking place for some time was tied to tremendous growth in popular journalism in the late nineteenth century, including growth in quantity and circulation of both magazines and newspapers. These developments, in addition to the continued growth of cities, were significant factors in the transformation of society from one characterized by relatively isolated self-contained communities into an urban, industrial nation. The decade of the 1870's, for example, was a period in which the sheer number of newspapers doubled, and by 1880 the *New York Graphic* had published the first photographic reproduction in a newspaper, portending a dramatic rise in newspaper readership. Between 1882 and 1886 alone, the price of daily newspapers dropped from four cents a copy to one cent, made possible in part by a great increase in demand. Furthermore, the introduction in 1890 of the first successful linotype machine promised even further growth. In 1872 only two daily newspapers could claim a circulation of over 100,000, but by 1892 seven more newspapers exceeded that figure. A world beyond the immediate community was rapidly becoming visible.

But it was not newspapers alone that were bringing the new awareness to people in the United States in the late nineteenth century. Magazines as they are known today began publication around 1882, and, in fact, the circulation of weekly magazines exceeded that of newspapers in the period which followed. By 1892, for example, the circulation of the *Ladies' Home Journal* had reached an astounding 700,000. An increase in book readership also played a significant part in this general trend. For example, Edward Bellamy's utopian novel, *Looking Backward*, sold over a million copies in 1888, giving rise to the growth of organizations dedicated to the realization of Bellamy's vision of the future. The printed word, unquestionably, was intruding on the insulation that had characterized United States society in an earlier period.

1. The word "acute" in line 3 is closest in meaning to  
(A) useful                      (B) intense                      (C) genuine                      (D) controversial
2. According to the passage, the expansion of popular journalism was linked to  
(A) changes in the distribution system  
(B) a larger supply of paper  
(C) an increase in people's awareness of social changes  
(D) greater numbers of journalists
3. According to the passage, the *New York Graphic's* inclusion of photographs contributed to  
(A) the closing of newspapers that did not use photographs  
(B) newspapers becoming more expensive  
(C) an increase in the number of people reading newspapers  
(D) a reduction in the cost of advertising
4. Why was there a drop in the price of daily newspapers between 1882 and 1886 ?  
(A) There was a rise in demand.  
(B) Newspapers had fewer pages.  
(C) Newspapers contained photographic reproductions.

- (D) Magazines began to compete with newspapers.
5. The word "exceeded" in line 16 is closest in meaning to  
(A) controlled (B) surpassed (C) affected (D) equaled
6. What does the author mean by the statement "A world beyond the immediate community was rapidly becoming visible" in lines 16-11 ?  
(A) Photographs made newspapers more interesting.  
(B) The United States exported newspapers to other countries.  
(C) People were becoming increasingly aware of national and international issues.  
(D) Communities remained isolated despite the growth of popular journalism
7. The word "that" in line 21 refers to  
(A) century (B) publication (C) circulation (D) period
8. The word "astounding" in line 22 is closest in meaning to  
(A) surprising (B) estimated (C) encouraging (D) sudden
9. Why does the author mention Edward Bellamy's novel *Looking Backward*?  
(A) To illustrate how advanced the technology of printing had become  
(B) To emphasize the influence of the printed word on a society undergoing rapid change  
(C) To document its prediction about the popularity of newspapers  
(D) To demonstrate that books had replaced newspapers and magazines as the leading source of information

**Question 10-19**

Glass is a remarkable substance made from the simplest raw materials. It can be colored or colorless, monochrome or polychrome, transparent, translucent, or opaque. It is lightweight impermeable to liquids, readily cleaned and reused, durable yet  
*Line* fragile, and often very beautiful Glass can be decorated in multiple ways and its  
(5) optical properties are exceptional. In all its myriad forms - as table ware, containers, in architecture and design - glass represents a major achievement in the history of technological developments.

Since the Bronze Age about 3,000 B.C., glass has been used for making various kinds of objects. It was first made from a mixture of silica, lime and an alkali such as  
(10) soda or potash, and these remained the basic ingredients of glass until the development of lead glass in the seventeenth century. When heated, the mixture becomes soft and malleable and can be formed by various techniques into a vast array of shapes and sizes. The homogeneous mass thus formed by melting then cools to create glass, but in contrast to most materials formed in this way (metals, for instance), glass lacks the  
(15) crystalline structure normally associated with solids, and instead retains the random molecular structure of a liquid. In effect, as molten glass cools, it progressively stiffens until rigid, but does so without setting up a network of interlocking crystals customarily associated with that process. This is why glass shatters so easily when dealt a blow. Why glass deteriorates over time, especially when exposed to moisture,  
(20) and why glassware must be slowly reheated and uniformly cooled after manufacture to release internal stresses induced by uneven cooling.

Another unusual feature of glass is the manner in which its viscosity changes as it turns from a cold substance into a hot, ductile liquid. Unlike metals that flow or "freeze" at specific temperatures glass progressively softens as the temperature rises,  
(25) going through varying stages of malleability until it flows like a thick syrup. Each stage of malleability allows the glass to be manipulated into various forms, by different

techniques, and if suddenly cooled the object retains the shape achieved at that point. Glass is thus amenable to a greater number of heat-forming techniques than most other materials.

10. Why does the author list the characteristics of glass in lines 1-5?  
 (A) To demonstrate how glass evolved  
 (B) To show the versatility of glass  
 (C) To explain glassmaking technology  
 (D) To explain the purpose of each component of glass
11. The word "durable" in line 3 is closest in meaning to  
 (A) lasting (B) delicate (C) heavy (D) Plain
12. What does the author imply about the raw materials used to make glass?  
 (A) They were the same for centuries. (B) They are liquid  
 (C) They are transparent (D) They are very heavy.
13. According to the passage, how is glass that has cooled and become rigid different from most other rigid substances?  
 (A) It has an interlocking crystal network. (B) It has an unusually low melting temperature.  
 (C) It has varying physical properties. (D) It has a random molecular structure.
14. The word "customarily" in line 17 is closest in meaning to  
 (A) naturally (B) necessarily (C) usually (D) certainly
15. The words "exposed to" in line 19 are closest in meaning to  
 (A) hardened by (B) chilled with (C) subjected to (D) deprived of
16. What must be done to release the internal stresses that build up in glass products during manufacture?  
 (A) the glass must be reheated and evenly cooled.  
 (B) the glass must be cooled quickly.  
 (C) The glass must be kept moist until cooled.  
 (D) The glass must be shaped to its desired form immediately
17. The word "induced" in line 21 is closest in meaning to  
 (A) joined (B) missed (C) caused (D) lost
18. The word "it" in line 22 refers to  
 (A) feature (B) glass (C) manner (D) viscosity
19. According to the passage, why can glass be more easily shaped into specific forms than can metals  
 (A) It resists breaking when heated  
 (B) It has better optical properties.  
 (C) It retains heat while its viscosity changes.  
 (D) It gradually becomes softer as its temperature rises.

### Question 20-30

A great deal can be learned from the actual traces of ancient human locomotion: the footprints of early hominids. The best-known specimens are the remarkable tracks discovered at Lactoli, Tanzania, by Mary Leaky. These were left by small hominids around 3.6 to 3.75 million years ago, according to potassium - argon dates of the volcanic rocks above and below this level. These hominids walked across a stretch of moist volcanic ash, which was subsequently turned to mud by rain, and which then set like concrete.

Line  
(5)

Examination of his shape of the prints revealed to Mary Leakey that the feet had a raised arch, a rounded heel, a pronounced ball, and a big toe that pointed forward.

(10) These features, together with the weight-bearing pressure patterns, resembled the prints of upright-walking modern humans. The pressures exerted along the foot, together with the length of stride, which averaged 87 centimeters, indicated that the hominids had been walking slowly. In short, all the detectable morphological features implied that the feet that left the footprints were very little different from those of contemporary

(15) humans.

A detailed study has been made of the prints using photogrammetry, a technique for obtaining measurements through photographs, which created a drawing showing all the curves and contours of the prints. The result emphasized that there were at least seven points of similarity with modern bipedal prints, such as the depth of the heel impression,

(20) and the deep imprint of the big toe. M Day and E. Wickens also took stereophotographs of the Laetoli prints and compared them with modern prints made by men and women in similar soil conditions. Once again, the results furnished possible evidence of bipedalism. Footprints thus provide us not merely with rare impressions of the soft tissue of early hominids, but also with evidence of upright walking that in many ways

(25) is clearer than can be obtained from the analysis of bones.

The study of fossil footprints is not restricted to examples from such remote periods. Hundreds of prints are known, for example, in French caves dating from the end of the last ice age, approximately 10,000 years ago. Research by Leon Pales, using detailed silicon resin molds of footprints mostly made by bare feet, has provided information

(30) about this period.

**20.** What does the passage mainly discuss?

- (A) The analysis of footprint fossils (B) Accurate dating of hominid remains  
(C) the career of Mary Leakey (D) Behavioral patterns of early humans

**21.** The word "remarkable" in line 2 is closest in meaning to

- (A) extraordinary (B) enormous (C) various (D) orderly

**22.** The age of the Laetoli footprints was estimated by

- (A) testing the fossilized bones of the hominids (B) studying the shape of the footprints  
(C) analyzing nearby rock layers (D) comparison with footprints from other locations

**23.** It can be inferred that the footprints in volcanic ash at Laetoli were well preserved because

- (A) they were buried by a second volcanic eruption  
(B) the ash contained potassium anti argon  
(C) the ash was still warm from the volcanic eruptions  
(D) suitable conditions caused the ash harden

**24.** Which of the following is NOT mentioned as a characteristic of the feet in Mary Leakey's fossil find?

- (A) The shape of the heel (B) The number of toes  
(C) A raised arch (D) A pronounced ball

**25.** The word "exerted" in line 11 is closest in meaning to

- (A) influenced (B) applied (C) returned (D) lessened

**26.** The figure of 87 centimeters mentioned in line 12 refers to the size of the

- (A) objects carried by the hominids (B) steps taken by the hominids  
(C) hominids bodies (D) hominids feet

**27.** Why does the author mention the "heel impression" in line 19?

- (A) To emphasize the size of the hominids foot

- (B) To speculate on a possible injury the hominid had suffered  
 (C) To give an example of similarity to modern human footprints  
 (D) To indicate the weight of early hominids
28. The word "restricted" in line 26 is closest in meaning to  
 (A) limited (B) improved (C) continued (D) succeeded
29. What can be inferred about the footprints found in French caves mentioned in the last paragraph?  
 (A) They show more detail than the Laetoli prints.  
 (B) They are of more recent origin than the Laetoli prints.  
 (C) They are not as informative as the Laetoli prints.  
 (D) They are more difficult to study than the Laetoli prints
30. Which of the following terms is defined in the passage?  
 (A) "hominids" (line 3) (B) "arch" (line 9)  
 (C) "photogrammetry" (line 16) (D) "silicon resin molds" (line 29)

### Questions 31-40

The livelihood of each species in the vast and intricate assemblage of living things depends on the existences of other organisms. This interdependence is sometimes subtle, sometimes obvious. Perhaps the most straight forward dependence of one species on another occurs with parasites, organisms that live on or in other living things and derive nutrients directly from them. The parasitic way of life is widespread. A multitude of microorganisms( including viruses and bacteria) and an army of invertebrates - or creatures lacking a spinal column (including crustaceans, insects, and many different types of worms ) -make their livings directly at the expense of other creatures. In the face of this onslaught, living things have evolved a variety of defense mechanisms for protecting their bodies from invasion by other organisms.

Certain fungi and even some kinds of bacteria secrete substances known as antibiotics into their external environment. These substances are capable of killing or inhibiting the growth of various kinds of bacteria that also occupy the area, thereby eliminating or reducing the competition for nutrients. The same principle is used in defense against invaders in other groups of organisms. For example, when attacked by disease-causing fungi or bacteria, many kinds of plants produce chemicals that help to ward off the invaders.

Members of the animal kingdom have developed a variety of defense mechanisms for dealing with parasites. Although these mechanisms vary considerably, all major groups of animals are capable of detecting and reacting to the presence of "foreign" cells. In fact, throughout the animal kingdom, from sponges to certain types of worms, shellfish, and all vertebrates (creatures possessing a spinal column), there is evidence that transplants of cells or fragments of tissues into an animal are accepted only if they come from genetically compatible or closely related individuals.

The ability to distinguish between "self" and "nonself", while present in all animals, is most efficient among vertebrates, which have developed an immune system as their defense mechanism. The immune system recognizes and takes action against foreign invaders and transplanted tissues that are treated as foreign cells.

31. What does the passage mainly discuss?  
 (A) how parasites reproduce  
 (B) how organisms react to invaders

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- (C) how antibiotics work to cure disease  
(D) how the immune systems of vertebrates developed
32. The word "intricate" in line 1 is closest in meaning to  
(A) difficult (B) widespread (C) critical (D) complex
33. The expression "an army" in line 6 is closest in meaning to  
(A) an illness (B) an attack (C) a large number (D) a distinct type
34. According to the passage, some organisms produce antibiotics in order to  
(A) prevent disease in humans (B) aid digestion  
(C) fight off other organisms (D) create new types of nutrients
35. The word "vary" in line 19 is closest in meaning to  
(A) differ (B) endure (C) balance (D) contribute
36. The word "they" in line 23 refers to  
(A) sponges, worms and shellfish (B) vertebrates  
(C) individuals (D) transplants
37. According to the passage, a transplant of tissue between genetically incompatible organisms will result in the transplanted tissue  
(A) becoming a parasite (B) being treated as an invader  
(C) altering its genetic makeup (D) developing a new immune system
38. According to the passage, the ability to distinguish between "self" and "nonself" enables vertebrates to  
(A) accept transplanted cells (B) detect and react to invasion  
(C) weaken their immune system (D) get rid of antibiotics
39. All of the following are defined in the passage EXCEPT  
(A) parasites(line 4) (B) invertebrates(line7)  
(C) nutrients (line14) (D) vertebrates(line 22)
40. The paragraph following the passage most probably discusses  
(A) how the immune system in vertebrates fights off foreign cells  
(B) different types of bacteria and lung  
(C) how vertebrates and invertebrates differ  
(D) examples of different groups of organisms

**Question 41-50**

The development of jazz can be seen as part of the larger continuum of American popular music, especially dance music. In the twenties, jazz became the hottest new thing in dance music, much as ragtime had at the turn of the century, and as would  
*Line* rhythm and blues in the fifties, rock in the fifties, and disco in the seventies.

- (5) But two characteristics distinguish jazz from other dance music. The first is improvisation, the changing of a musical phrase according to the player's inspiration. Like all artists, jazz musicians strive for an individual style, and the improvise or paraphrase is a jazz musician's main opportunity to display his or her individuality. In early jazz, musicians often improvised melodies collectively, thus creating a kind of  
(10) polyphony. There was little soloing as such, although some New Orleans players, particularly cornet player Buddy Bolden, achieved local fame for their ability to improvise a solo. Later the idea of the chorus-long or multichorus solo took hold. Louis Armstrong's instrumental brilliance, demonstrated through extended solos, was a major influence in this development.



- (15) Even in the early twenties, however, some jazz bands had featured soloists. Similarly, show orchestras and carnival bands often included one or two such "get-off" musicians. Unimproved, completely structured jazz does exist, but the ability of the best jazz musicians to create music of great cohesion and beauty during performance has been a hallmark of the music and its major source of inspiration and change.
- (20) The second distinguishing characteristic of jazz is a rhythmic drive that was initially called "hot" and later "swing". In playing hot, a musician consciously departs from strict meter to create a relaxed sense of phrasing that also emphasizes the underlying rhythms. ("Rough" tone and use of moderate vibrato also contributed to a hot sound.) Not all jazz is hot, however, many early bands played unadorned published arrangements
- (25) of popular songs. Still, the proclivity to play hot distinguished the jazz musician from other instrumentalists.

41. The passage answers which of the following questions?

- (A) Which early jazz musicians most influenced rhythm and blues music?  
 (B) What are the differences between jazz and other forms of music?  
 (C) Why is dancing closely related to popular music in the United States?  
 (D) What instruments comprised a typical jazz band of the 1920's?

42. Which of the following preceded jazz as a popular music for dancing?

- (A) Disco                      (B) Rock                      (C) Rhythm and blues      (D) Ragtime

43. According to the passage, jazz musicians are able to demonstrate their individual artistry mainly by?

- (A) creating musical variations while performing  
 (B) preparing musical arrangements  
 (C) reading music with great skill  
 (D) being able to play all types of popular music

44. Which of the following was the function of "get-off" musicians (line 16)?

- (A) Assist the other band members in packing up after a performance  
 (B) Teach dance routines created for new music  
 (C) Lead the band  
 (D) Provide solo performances in a band or orchestra

45. The word "cohesion" in line 18 is closest in meaning to

- (A) sorrow                      (B) fame                      (C) unity                      (D) vibration

46. The word "initially" in line 20 is closest in meaning to

- (A) at first                      (B) shortly                      (C) alphabetically                      (D) in fact

47. The word "consciously" in line 21 is closest in meaning to

- (A) carelessly                      (B) easily                      (C) periodically                      (D) purposely

48. The word "unadorned" in line 24 is closest in meaning to

- (A) lovely                      (B) plain                      (C) disorganized                      (D) inexpensive

49. Which of the following terms is defined in the passage?

- (A) "improvisation" (line 6)                      (B) "polyphony" (line 10)  
 (C) "cornet player" (line 11)                      (D) "multichorus" (line 12)

50. The topic of the passage is developed primarily by means of

- (A) dividing the discussion into two major areas  
 (B) presenting contrasting points of view  
 (C) providing biographies of famous musician

(D) describing historical events in sequence

# PRACTICE TEST 23

## May 1998

### Questions 1-11

Before the 1500's, the western plains of North America were dominated by farmers. One group, the Mandans, lived in the upper Missouri River country, primarily in present-day North Dakota. They had large villages of houses built close together. The  
*Line* tight arrangement enabled the Mandans to protect themselves more easily from the  
(5) attacks of others who might seek to obtain some of the food these highly capable farmers stored from one year to the next.

The women had primary responsibility for the fields. They had to exercise considerable skill to produce the desired results, for their northern location meant fleeting growing seasons. Winter often lingered; autumn could be ushered in by  
(10) severe frost. For good measure, during the spring and summer, drought, heat, hail, grasshoppers, and other frustrations might await the wary grower.

Under such conditions, Mandan women had to grow maize capable of weathering adversity. They began as early as it appeared feasible to do so in the spring, clearing the land, using fire to clear stubble from the fields and then planting. From this point  
(15) until the first green corn could be harvested, the crop required labor and vigilance.

Harvesting proceeded in two stages. In August the Mandans picked a smaller amount of the crop before it had matured fully. This green corn was boiled, dried, and shelled, with some of the maize slated for immediate consumption and the rest stored in animal-skin bags. Later in the fall, the people picked the rest of the corn. They saved  
(20) the best of the harvest for seeds or for trade, with the remainder eaten right away or stored for later use in underground reserves. With appropriate banking of the extra food, the Mandans protected themselves against the disaster of crop failure and accompanying hunger.

The women planted another staple, squash, about the first of June, and harvested it  
(25) near the time of the green corn harvest. After they picked it, they sliced it, dried it, and strung the slices before they stored them. Once again, they saved the seed from the best of the year's crop. The Mandans also grew sunflowers and tobacco; the latter was the particular task of the old men.

1. The Mandans built their houses close together in order to
  - (A) guard their supplies of food
  - (B) protect themselves against the weather
  - (C) allow more room for growing corn
  - (D) share farming implements
2. The word "enabled" in line 4 is closest in meaning to
  - (A) covered
  - (B) reminded
  - (C) helped
  - (D) isolated
3. The word "considerable" in line 8 is closest in meaning to
  - (A) planning
  - (B) much
  - (C) physical
  - (D) flew
4. Why does the author believe that the Mandans were skilled farmers?
  - (A) They developed effective fertilizers.
  - (B) They developed new varieties of corn.
  - (C) They could grow crops in most types of soil.
  - (D) They could grow crops despite adverse weather.

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5. The word "consumption" in line 18 is closest in meaning to  
(A) decay (B) planting (C) eating (D) conversion
6. Which of the following processes does the author imply was done by both men and women?  
(A) Clearing fields (B) Planting corn (C) Harvesting corn (D) harvesting squash.
7. The word "disaster" in line 22 is closest in meaning to  
(A) control (B) catastrophe (C) avoidance (D) history
8. According to the passage, the Mandans preserved their food by  
(A) smoking (B) drying (C) freezing (D) salting
9. The word "it" in line 25 refers to  
(A) June (B) corn (C) time (D) squash
10. Which of the following crops was cultivated primarily by men  
(A) Corn (B) Squash (C) Sunflower (D) Tobacco
11. Throughout the passage, the author implies that the Mandans  
(A) planned for the future (B) valued individuality  
(C) were open to strangers (D) were very adventurous

**Questions 12-20**

The elements other than hydrogen and helium exist in such small quantities that it is accurate to say that the universe somewhat more than 25 percent helium by weight and somewhat less than 25 percent hydrogen.

*Line* Astronomers have measured the abundance of helium throughout our galaxy and in  
(5) other galaxies as well. Helium has been found in old stars, in relatively young ones, in interstellar gas, and in the distant objects known as quasars. Helium nuclei have also been found to be constituents of cosmic rays that fall on the earth (cosmic "rays" are not really a form of radiation; they consist of rapidly moving particles of numerous different kinds). It doesn't seem to make very much difference where the helium is  
(10) found. Its relative abundance never seems to vary much. In some places, there may be slightly more of it; In others, slightly less, but the ratio of helium to hydrogen nuclei always remains about the same.

Helium is created in stars. In fact, nuclear reactions that convert hydrogen to helium are responsible for most of the energy that stars produce. However, the amount of  
(15) helium that could have been produced in this manner can be calculated, and it turns out to be no more than a few percent. The universe has not existed long enough for this figure to be significantly greater. Consequently, if the universe is somewhat more than 25 percent helium now, then it must have been about 25 percent helium at a time near the beginning.

(20) However, when the universe was less than one minute old, no helium could have existed. Calculations indicate that before this time temperatures were too high and particles of matter were moving around much too rapidly. It was only after the oneminute point that helium could exist. By this time, the universe had cooled sufficiently that neutrons and protons could stick together. But the nuclear reactions that led to the  
(25) formation of helium went on for only a relatively short time. By the time the universe was a few minutes old, helium production had effectively ceased.

12. What does the passage mainly explain?

- (A) How stars produce energy  
 (B) The difference between helium and hydrogen  
 (C) When most of the helium in the universe was formed  
 (D) Why hydrogen is abundant
13. According to the passage, helium is  
 (A) the second-most abundant element in the universe  
 (B) difficult to detect  
 (C) the oldest element in the universe  
 (D) the most prevalent element in quasars
14. The word "constituents" in line 7 is closest in meaning to  
 (A) relatives (B) causes (C) components (D) targets
15. Why does the author mention "cosmic rays" in line 7?  
 (A) As part of a list of things containing helium  
 (B) As an example of an unsolved astronomical puzzle  
 (C) To explain how the universe began  
 (D) To explain the abundance of hydrogen in the universe
16. The word "vary" in line 10 is closest in meaning to  
 (A) mean (B) stretch (C) change (D) include
17. The creation of helium within stars  
 (A) cannot be measured  
 (B) produces energy  
 (C) produces hydrogen as a by-product  
 (D) causes helium to be much more abundant in old stars than in young stars.
18. The word "calculated" in line 15 is closest in meaning to  
 (A) ignored (B) converted (C) increased (D) determined
19. Most of the helium in the universe was formed  
 (A) in interstellar space  
 (B) in a very short time  
 (C) during the first minute of the universe's existence  
 (D) before most of the hydrogen
20. The word "ceased" in line 26 is closest in meaning to  
 (A) extended (B) performed (C) taken hold (D) stopped

### Questions 21-30

In colonial America, people generally covered their beds with decorative quilts resembling those of the lands from which the settlers had come. Wealthy and socially prominent settlers made quilts of the English type, cut from large lengths of cloth of the same color and texture rather than stitched together from smaller pieces. They made these until the advent of the Revolutionary War in 1775, when everything English came to be frowned upon.

Among the whole-cloth quilts made by these wealthy settlers during the early period are those now called linsey-woolseys. This term was usually applied to a fabric of wool and linen used in heavy clothing and quilted petticoats worn in the wintertime. Despite the name, linsey-woolsey bedcovers did not often contain linen. Rather, they were made of a top layer of woolen or glazed worsted wool fabric, consisting of smooth, compact yarn from long wool fiber dyed dark blue, green, or brown with a bottom

layer of a coarser woolen material, either natural or a shade of yellow. The filling was a soft layer of wool which had been cleaned and separated and the three layers were held together with decorative stitching done with homespun linen thread. Later, cotton thread was used for this purpose. The design of the stitching was often a simple one composed of interlocking circles or crossed diagonal lines giving a diamond pattern.

- (15) This type of heavy, warm, quilted bedcover was so large that it hung to the floor. The corners are cut out at the foot of the cover so that the quilt fit snugly around the tall four-poster, beds of the 1700's, which differed from those of today in that they were shorter and wider; they were short because people slept in a semi-sitting position with many bolsters or pillows, and wide, because each bed often slept three or more. The linsey-woolsey covering was found in the colder regions of the country because of the warmth it afforded. There was no central heating and most bedrooms did not have fireplaces.

21. What does this passage mainly discuss?

- (A) The processing of wool  
(B) Linsey-woolsey bedcovers  
(C) Sleeping habits of colonial Americans  
(D) Quilts made in England

22. The word "prominent" in line 3 is closest in meaning to

- (A) isolated  
(B) concerned  
(C) generous  
(D) distinguished

23. The author mention the Revolutionary War as a time period when

- (A) quills were supplied to the army  
(B) more immigrants arrived from England  
(C) quills imported from England became harder to find  
(D) people's attitudes toward England changed.

24. The phrase "applied to" in line 8 is closest in meaning to

- (A) sewn onto  
(B) compared to  
(C) used for  
(D) written down on

25. The term "linsey-woolsey" originally meant fabric used primarily in

- (A) quilts  
(B) sheets  
(C) clothing  
(D) pillows

26. The word "coarser" in line 13 is closest in meaning to

- (A) older  
(B) less heavy  
(C) more attractive  
(D) rougher

27. The quilts described in the second and third paragraphs were made primarily of

- (A) wool  
(B) linen  
(C) cotton  
(D) a mixture of fabrics

28. It can be inferred from the third paragraph that the sleeping habits of most Americans have changed since the 1700's in all the following ways EXCEPT

- (A) the position in which people sleep  
(B) the numbers of bolsters or pillows people sleep on  
(C) the length of time people sleep  
(D) the number of people who sleep in one bed

29. The word "afforded" in line 24 is closest in meaning to

- (A) provided  
(B) spent  
(C) avoided  
(D) absorbed

30. Which of the following was most likely to be found in a bedroom in the colder areas of the American colonies?

- (A) A linsey-woolsey  
(B) A vent from a central heating system  
(C) A fireplace  
(D) A wood stove

### Questions 31-40

Line Growing tightly packed together and collectively weaving a dense canopy of  
 branches, a stand of red alder trees can totally dominate a site to the exclusion of  
 almost everything else. Certain species such as salmonberry and sword ferns have  
 adapted to the limited sunlight dappling through the canopy, but few evergreen trees  
 (5) will survive there; still fewer can compete with the early prodigious growth of alders.  
 A Douglas fir tree reaches its maximum rate of growth ten years later than an alder,  
 and if the two of them begin life at the same time, the alder quickly outgrows and  
 dominates the Douglas fir. After an alder canopy has closed, the Douglas fir suffers a  
 marked decrease in growth, often dying within seven years. Even more shade-tolerant  
 (10) species of trees such as hemlock may remain badly suppressed beneath aggressive  
 young alders.

Companies engaged in intensive timber cropping naturally take a dim view of alders  
 suppressing more valuable evergreen trees. But times are changing; a new generation  
 of foresters seems better prepared to include in their management plans consideration  
 (15) of the vital ecological role alders, play.

Among the alder's valuable ecological contributions is its capacity to fix nitrogen in  
 nitrogen-deficient soils. Alder roots contain clusters of nitrogen-fixing nodules like  
 those found on legumes such as beans. In addition, newly developing soils exposed by  
 recent glacier retreat and planted with alders show that these trees are applying the  
 (20) equivalent of ten bags of high-nitrogen fertilizer to each hectare per year. Other  
 chemical changes to soil in which they are growing include a lowering of the base  
 content and rise in soil acidity, as well as a substantial addition of carbon and calcium  
 to the soil.

Another important role many alders play in the wild, particularly in mountainous  
 (25) areas, is to check the rush of water during spring melt. In Japan and elsewhere, the  
 trees are planted to stabilize soil on steep mountain slopes. Similarly, alders have been  
 planted to stabilize and rehabilitate waste material left over from old mines, flood  
 deposits, and landslide areas in both Europe and Asia.

31. What does the passage mainly discuss?  
 (A) Differences between alder trees and Douglas fir trees  
 (B) Alder trees as a source of timber  
 (C) Management plans for using alder trees to improve soil  
 (D) The relation of alder trees to their forest environments
32. The word "dense" in line 1 is closest in meaning to  
 (A) dark (B) tall (C) thick (D) broad
33. Alder trees can suppress the growth of nearby trees by depriving them of  
 (A) nitrogen (B) sunlight (C) soil nutrients (D) water
34. The passage suggests that Douglas fir trees are  
 (A) a type of alder (B) a type of evergreen

- (C) similar to sword ferns (D) fast-growing trees
35. It can be inferred from paragraph 1 that hemlock trees  
(A) are similar in size to alder trees.  
(B) interfere with the growth of Douglas fir trees  
(C) reduce the number of alder trees in the forest  
(D) need less sunlight than do Douglas fir trees
36. It can be inferred from paragraph 2 that previous generations of foresters  
(A) did not study the effects of alders on forests  
(B) did not want alders in forests  
(C) harvested alders for lumber  
(D) used alders to control the growth of evergreens
37. The word "they" in line 21 refers to  
(A) newly developing soils (B) alders  
(C) bags (D) chemical changes
38. According to the passage that alders are used in mountainous areas to  
(A) nitrogen (B) calcium (C) carbon (D) oxygen
39. It can be inferred from the passage that alders are used in mountainous areas to  
(A) prevent water from carrying away soil (B) hold the snow  
(C) protect mines (D) provide material for housing
40. What is the author's main purpose in the passage?  
(A) To argue that alder trees are useful in forest management  
(B) To explain the life cycle of alder trees  
(C) To criticize the way alders take over and eliminate forests  
(D) To illustrate how alder trees control soil erosion

### Questions 41-50

In taking up new life across the Atlantic, the early European settlers of the United States did not abandon the diversions with which their ancestors had traditionally relieved the tedium of life. Neither the harshness of existence on the new continent nor the scattered population nor the disapproval of the clergy discouraged the majority  
*Line* (5) from the pursuit of pleasure.

City and country dwellers, of course, conducted this pursuit in different ways. Farm dwellers in their isolation not only found it harder to locate companions in play but also thanks to the unending demands and pressures of their work, felt it necessary to combine fun with purpose. No other set of colonists too so seriously one expression of  
(10) the period. "Leisure is time for doing something useful." in the countryside farmers therefore relieved the burden of the daily routine with such double-purpose relaxation as hunting, fishing, and trapping. When a neighbor needed help, families rallied from miles around to assist in building a house or barn, husking corn, shearing sheep or chopping wood. Food, drink, and celebration after the group work provided relaxation  
(15) and soothed weary muscles.

The most eagerly anticipated social events were the rural fairs, Hundreds of men, women, and children attended from far and near. The men bought or traded farm animals and acquired needed merchandise while the women displayed food prepared in their kitchens, and everyone, including the youngsters, watched or participated in a  
(20) variety of competitive sports, with prizes awarded to the winners. These events



typically included horse races, wrestling matches, and foot races, as well as some nonathletic events such as whistling competitions. No other occasions did so much to relieve the isolation of farm existence.

(25) With the open countryside everywhere at hand, city dwellers naturally shared in some of the rural diversions. Favored recreations included fishing, hunting, skating, and swimming. But city dwellers also developed other pleasures, which only compact communities made possible.

41. What is the passage mainly about?  
 (A) Methods of farming used by early settlers of the United States  
 (B) Hardships faced by the early settlers of the United States  
 (C) Methods of buying, selling, and trading used by early settlers of the United States  
 (D) Ways in which early settlers of the United States relaxed
42. What can be inferred about the diversions of the early settlers of the United States?  
 (A) They followed a pattern begun in Europe.  
 (B) They were enjoyed more frequently than in Europe.  
 (C) The clergy organized them.  
 (D) Only the wealthy participated in them.
43. Which of the following can be said about the country dwellers' attitude toward "the pursuit of pleasure"?  
 (A) They felt that it should help keep their minds on their work.  
 (B) They felt that it was not necessary.  
 (C) They felt that it should be productive.  
 (D) They felt that it should not involve eating and drinking.
44. The phrase "thanks to" in line 8 is closest in meaning to  
 (A) grateful for                      (B) help with                      (C) because of                      (D) machines for
45. The word "their" in line 8 refers to  
 (A) ways                      (B) farm dwellers                      (C) demands                      (D) pressures
46. What is meant by the phrase "double-purpose" in line 11 ?  
 (A) Very frequent                      (B) Useful and enjoyable  
 (C) Extremely necessary                      (D) Positive and negative
47. The phrase "eagerly anticipated" in line 16 is closest in meaning to  
 (A) well organized                      (B) old-fashioned  
 (C) strongly opposed                      (D) looked forward to
48. Which of the following can be said about the rural diversions mentioned in the last paragraph in which city dwellers also participated?  
 (A) They were useful to the rural community.  
 (B) They involved the purchase items useful in the home.  
 (C) They were activities that could be done equally easily in the towns  
 (D) They were all outdoor activities.
49. What will the author probably discuss in the paragraph following this passage?  
 (A) The rural diversions enjoyed by both urban and rural people  
 (B) Leisure activities of city dwellers  
 (C) Building methods of the early settlers in rural areas  
 (D) Changes in the lifestyles of settlers' as they moved to the cities
50. Where in the passage does the author mention factors that might prevent people from enjoying themselves?  
 (A) Lines 3-5                      (B) Lines 12-14                      (C) Lines 17-20                      (D) Lines 25-27



# PRACTICE TEST 24

## August 1998

### Questions 1-10

A seventeenth-century theory of burning proposed that anything that burns must contain material that the theorists called "phlogiston". Burning was explained as the release of phlogiston from the combustible material to the air. Air was thought  
*Line* essential, since it had to provide a home for the released phlogiston. There would be a  
(5) limit to the phlogiston transfer, since a given volume of air could absorb only so much phlogiston. When the air had become saturated, no additional amounts of phlogiston could leave the combustible substance, and the burning would stop. Burning would also stop when the combustible substance was emptied of all its phlogiston.

Although the phlogiston theory was self-consistent, it was awkward because it  
(10) required that imaginative, even mysterious, properties be ascribed to phlogiston. Phlogiston was elusive. No one had ever isolated it and experimentally determined its properties. At times it seemed to show a negative weight: the residue left after burning weighed more than the material before burning. This was true, for example, when magnesium burned. Sometimes phlogiston seemed to show a positive weight: when,  
(15) for example, wood burned, the ash weighed less than the starting material. And since so little residue was left when alcohol, kerosene, or high-grade coal burned, these obviously different materials were thought to be pure or nearly pure phlogiston.

In the eighteenth century, Antoine Lavoisier, on the basis of careful experimentation,  
(20) was led to propose a different theory of burning, one that required a constituent of air-later shown to be oxygen-for combustion. Since the weight of the oxygen is always added, the weight of the products of combustion, including the evolved gases, would always be greater than the weight of the starting material.

Lavoisier's interpretation was more reasonable and straightforward than that of the  
(25) phlogiston theorists. The phlogiston theory, always clumsy, became suspect, eventually fell into scientific disrepute, and was replaced by new ideas.

1. What does the passage mainly discuss?  
(A) The chemical composition of phlogiston.  
(B) Attempts to explain what happens when materials burn  
(C) Limitations of seventeenth-century scientific theories  
(D) The characteristics of the residue left after fires
2. The word "it" in line 4 refers to  
(A) burning  
(B) phlogiston  
(C) combustible material  
(D) air
3. The "phlogiston transfer" mentioned in line 5 is a term used to describe the  
(A) natural limits on the total volume of phlogiston  
(B) absence of phlogiston in combustible material  
(C) ability of phlogiston to slow combustion  
(D) release of phlogiston into the air from burning material
4. The word "properties" in line 10 is closest in meaning to  
(A) interpretations  
(B) locations  
(C) characteristics  
(D) virtues
5. The phrase "ascribed to" in line 10 is closest in meaning to  
(A) analyzed and isolated in  
(B) returned to their original condition in

- (C) assumed to be true of (D) diagrammed with
6. The author mentions magnesium in line 14 as an example of a substance that  
(A) seemed to have phlogiston with a negative weight  
(B) leaves no residue after burning  
(C) was thought to be made of nearly pure phlogiston  
(D) was thought to contain no phlogiston
7. The "different materials" mentioned in line 17 were considered different because they  
(A) required more heat to burn than other substances did  
(B) burned without leaving much residue  
(C) were more mysterious than phlogiston  
(D) contained limited amounts of phlogiston
8. The word "constituent" in line 19 is closest in meaning to  
(A) component (B) opposite (C) principle (D) temperature
9. The word "Since" in line 20 is closest in meaning to  
(A) later (B) because (C) during (D) although
10. Which of the following is true of both the phlogiston theory of burning and Lavoisier's theory of burning?  
(A) Both theories propose that total weight always increases during burning.  
(B) Both theories are considered to be reasonable and straightforward.  
(C) Both theories have difficulty explaining why residue remains after burning.  
(D) Both theories recognize that air is important to combustion.

**Questions 11-22**

Iron production was revolutionized in the early eighteenth century when coke was first used instead of charcoal for refining iron ore. Previously the poor quality of the iron had restricted its use in architecture to items such as chains and tie bars for  
*Line* supporting arches, vaults, and walls. With the improvement in refining ore, it was now  
(5) possible to make cast-iron beams, columns, and girders. During the nineteenth century further advances were made, notably Bessemer's process for converting iron into steel, which made the material more commercially viable.

Iron was rapidly adopted for the construction of bridges, because its strength was far greater than that of stone or timber, but its use in the architecture of buildings developed  
(10) more slowly. By 1800 a complete internal iron skeleton for buildings had been developed in industrial architecture replacing traditional timber beams, but it generally remained concealed. Apart from its low cost, the appeal of iron as a building material lay in its strength, its resistance to fire, and its potential to span vast areas. As a result, iron became increasingly popular as a structural material for more traditional styles of  
(15) architecture during the nineteenth century, but it was invariably concealed.

Significantly, the use of exposed iron occurred mainly in the new building types spawned by the Industrial Revolution: in factories, warehouses, commercial offices, exhibition hall, and railroad stations, where its practical advantages far outweighed its lack of status. Designers of the railroad stations of the new age explored the potential  
(20) of iron, covering huge areas with spans that surpassed the great vaults of medieval churches and cathedrals. Paxton's Crystal Palace, designed to house the Great Exhibition of 1851, covered an area of 1.848 feet by 408 feet in prefabricated units of glass set in iron frames. The Paris Exhibition of 1889 included both the widest span and the greatest height achieved so far with the Halle Des Machines, spanning 362 feet,  
(25) and the Eiffel Tower 1,000 feet high. However, these achievements were mocked by

the artistic elite of Paris as expensive and ugly follies. Iron, despite its structural advantages, had little aesthetic status. The use of an exposed iron structure in the more traditional styles of architecture was slower to develop.

11. What does the passage mainly discuss?  
 (A) Advances in iron processing in the eighteenth and nineteenth centuries  
 (B) The effects of the Industrial Revolution on traditional architectural styles  
 (C) Advantages of stone and timber over steel as a building material  
 (D) The evolution of the use of iron in architecture during the 1800's
12. The word "revolutionized" in line 1 is closest in meaning to  
 (A) quickly started (B) gradually opened  
 (C) dramatically changed (D) carefully examined
13. According to the passage, iron was NOT used for beams, columns, and girders prior to the early eighteenth century because  
 (A) all available iron was needed for other purposes  
 (B) limited mining capability made iron too expensive  
 (C) iron was considered too valuable for use in public buildings  
 (D) the use of charcoal for refining ore produced poor quality iron
14. Iron replaced stone and timber in the building of bridges because iron was considered  
 (A) more beautiful (B) new and modern  
 (C) much stronger (D) easier to transport
15. The word "it" in line 11 refers to  
 (A) industrial architecture (B) internal iron skeleton  
 (C) stone (D) strength
16. The word "appeal" in line 12 is closest in meaning to  
 (A) adjustment (B) assignment (C) attraction (D) attempt
17. The word "spawned" in line 17 is closest in meaning to  
 (A) created (B) maintained (C) rejected (D) exposed
18. The word "surpassed" in line 20 is closest in meaning to  
 (A) imitated (B) exceeded (C) approached (D) included
19. According to paragraph 3, the architectural significance of the Halle Des Machines was its  
 (A) wide span (B) great height  
 (C) unequaled beauty (D) prefabricated unites of glass
20. How did the artistic elite mentioned in the passage react to the buildings at the Paris Exhibition?  
 (A) They tried to copy them. (B) They ridiculed them.  
 (C) They praised them. (D) They refused to pay to see them.
21. It can be inferred that the delayed use of exposed iron structures in traditional styles of architecture is best explained by the  
 (A) impracticality of using iron for small, noncommercial buildings  
 (B) association of iron architecture with the problems of the Industrial Revolution  
 (C) general belief that iron offered less resistance to fire and harsh weather than traditional materials  
 (D) general perception that iron structures were not aesthetically pleasing
22. The paragraph following the passage most probably discusses  
 (A) the gradual inclusion of exposed iron in traditional styles of architecture  
 (B) further improvements in iron processing methods  
 (C) the return to traditional building materials for use in commercial structures

(D) the decreased use of stone and timber as a building material

### Questions 23- 32

The most easily recognizable meteorites are the iron variety, although they only represent about 5 percent of all meteorite falls. They are composed of iron and nickel along with sulfur, carbon, and traces of other elements. Their composition is thought to

*Line* be similar to that of Earth's iron core, and indeed they might have once made up the  
(5) core of a large planetoid that disintegrated long ago. Due to their dense structure, iron meteorites have the best chance of surviving an impact, and most are found by farmers plowing their fields.

One of the best hunting grounds for meteorites is on the glaciers of Antarctica, where the dark stones stand out in stark contrast to the white snow and ice. When  
(10) meteorites fall on the continent, they are embedded in the moving ice sheets. At places where the glaciers move upward against mountain ranges, meteorites are left exposed on the surface. Some of the meteorites that have landed in Antarctica are believed to have come from the Moon and even as far away as Mars, when large impacts blasted out chunks of material and hurled them toward Earth.

(15) Perhaps the world's largest source of meteorites is the Nullarbor Plain, an area of limestone that stretches for 400 miles along the southern coast of Western and South Australia. The pale, smooth desert plain provides a perfect backdrop for spotting meteorites, which are usually dark brown or black. Since very little erosion takes place, the meteorites are well preserved and are found just where they landed. Over 1,000  
(20) fragments from 150 meteorites that fell during the last 20,000 years have been recovered. One large iron meteorite, called the Mundrabilla meteorite, weighed more than 11 tons.

Stony meteorites, called chondrites, are the most common type and make up more than 90 percent of all falls. But because they are similar to Earth materials and therefore

(25) erode easily, they are often difficult to find. Among the most ancient bodies in the solar system are the carbonaceous chondrites that also contain carbon compounds that might have been the precursors of life on Earth.

23. What is the passage mainly about?

- (A) Finding meteorites on Earth's surface
- (B) How the composition of meteorites is similar to that of Earth
- (C) Why most meteorites do not survive impact with Earth
- (D) The origins of meteorites

24. The word "core" in line 4 is closest in meaning to

- (A) center
- (B) surface
- (C) mineral
- (D) field

25. The author mentions "dark stones" and "white snow" in line 9 to illustrate that

- (A) meteorites are found most often in Antarctica
- (B) glaciers stop meteorites from mixing with soil
- (C) meteorites are easier to find in glacial areas
- (D) most of Antarctica is covered with meteorites

26. The word "embedded" in line 10 is closest in meaning to

- (A) isolated
- (B) encased
- (C) enhanced
- (D) enlarged

27. The word "spotting" in line 17 is closest in meaning to  
 (A) removing (B) identifying (C) cooling (D) falling
28. The passage suggests that which of the following is most commonly responsible for the poor preservation of meteorites that fall to Earth?  
 (A) The size of the fragments (B) Ice sheets  
 (C) Erosion (D) Desert heat
29. Where was the Mundrabilla meteorite discovered?  
 (A) On the Nullarbor Plain (B) In a field  
 (C) On a mountain (D) In Antarctica
30. The word "they" in line 25 refers to  
 (A) stony meteorites (B) falls (C) Earth materials (D) ancient bodies
31. Why does the author mention carbonaceous chondrites (line 26)?  
 (A) They are the largest meteorites found on Earth  
 (B) They are most likely to be found whole.  
 (C) They come from outside the solar system.  
 (D) They may be related to the origins of life on Earth.
32. According to the passage, stony meteorites are  
 (A) composed of fragmented materials (B) less likely to be discovered than iron meteorites  
 (C) mostly lost in space (D) found only on the Nullarbor Plain

### Questions 33-41

A pioneering set of experiments has been important in the revolution in our understanding of animal behavior—a revolution that eroded the behaviorist dogma that only humans have minds. These experiments were designed to detect  
*Line* consciousness—that is signs of self-awareness or self-recognition—in animals  
 (5) other than humans.

The scientific investigation of an experience as private as consciousness is frustratingly beyond the usual tools of the experimental psychologist. This may be one reason that many researchers have shield away from the notion of mind and consciousness in nonhuman animals. In the late 1960's, however, psychologist Gordon Gallup devised a test  
 (10) of the sense of self: the mirror test. If an animal were able to recognize its reflection in a mirror as "self", then it could be said to possess an awareness of self, or consciousness. It is known that a cat or a dog reacts to its own image in a mirror, but often it treats it as that of another individual whose behavior very soon becomes puzzling and boring.

The experiment called for familiarizing the animal with the mirror and then marking  
 (15) the animal's forehead with a red spot. If the animal saw the reflection as just another individual, it might wonder about the curious red spot and might even touch the mirror. But if the animal realized that the reflection was of itself, it would probably touch the spot on its own body. The first time Gallup tried the experiment with a chimpanzee, the animal acted as if it knew that the reflection was its own; it touched the red spot on its  
 (20) forehead. Gallup' report of the experiment, published in a 1970 articles, was a milestone in our understanding of animal minds, and psychologists wondered how widespread self-recognition would prove to be.

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33. The word "dogma" in line 3 is closest in meaning to  
(A) evaluation (B) proof (C) intention (D) belief
34. The word "detect" in line 3 is closest in meaning to  
(A) imitate the behavior of (B) provide a reason for  
(C) discover the presence of (D) report a need for
35. Which of the following statements best describes the behaviorists position with regard to consciousness in nonhuman animals?  
(A) Most nonhuman animals show signs of self-consciousness.  
(B) Most nonhuman animals can be taught self-consciousness.  
(C) Chimpanzees are the only nonhuman animals that have a human level of self-consciousness.  
(D) Nonhuman animals do not possess self-consciousness.
36. The author suggests that researchers before 1960 probably avoided studying nonhuman animal consciousness because they  
(A) did not wish to experiment with live animal subjects  
(B) were discouraged by earlier unsuccessful experiments that studied human consciousness  
(C) had not yet devised adequate research methods for animal consciousness experiments  
(D) lacked the necessary laboratory equipment
37. The phrase "shied away from" in line 8 is closest in meaning to  
(A) approached (B) avoided (C) respected (D) allowed
38. What does the author mean when stating in line 14 that "The experiment called for familiarizing the animal with the mirror"?  
(A) The experiment required the use of a chimpanzee that had not participated in previous mirror tests.  
(B) Gallup had to allow the chimpanzee to become accustomed to the mirror before he began the experiment.  
(C) Gallup had to teach the chimpanzee to recognize its reflection in the mirror.  
(D) The chimpanzee had to first watch the experiment being conducted with another chimpanzee.
39. The word "it" in line 16 refers to  
(A) red spot (B) animal (C) reflection (D) another individual
40. The chimpanzee in Gallup's first experiment responded to the mirror test by touching  
(A) its own forehead (B) the researcher's forehead  
(C) the red spot on the mirror (D) the red spot on another chimpanzee
41. The word "milestone" in line 20 is closest in meaning to  
(A) significant development (B) initial step  
(C) universal concept (D) obstruction to progress

**Questions 42-50**

Biological diversity has become widely recognized as a critical conservation issue only in the past two decades. The rapid destruction of the tropical rain forests, which are the ecosystems with the highest known species diversity on Earth, has awakened people to the importance and fragility of biological diversity. The high rate of species extinctions in these environments is jolting, but it is important to recognize the significance of biological diversity in all ecosystems. As the human population continues to expand, it will negatively affect one after another of Earth's ecosystems. In terrestrial ecosystems and in fringe marine ecosystems (such as wetlands), the most common problem is habitat destruction. In most situations, the result is irreversible. Now humans are beginning to



(10) destroy marine ecosystems through other types of activities, such as disposal and runoff of poisonous waste; in less than two centuries, by significantly reducing the variety of species on Earth, they have unraveled cons of evolution and irrevocably redirected its course.

Certainly, there have been periods in Earth's history when mass extinctions have  
 (15) occurred. The extinction of the dinosaurs was caused by some physical event, either climatic or cosmic. There have also been less dramatic extinctions, as when natural competition between species reached an extreme conclusion. Only 0.01 percent of the species that have lived on Earth have survived to the present, and it was largely chance that determined which species survived and which died out.

(20) However, nothing has ever equaled the magnitude and speed with which the human species is altering the physical and chemical world and demolishing the environment. In fact, there is wide agreement that it is the rate of change humans are inflicting, even more than the changes themselves, that will lead to biological devastation. Life on Earth has continually been in flux as slow physical and chemical changes have occurred on  
 (25) Earth, but life needs time to adapt-time for migration and genetic adaptation within existing species and time for the proliferation of new genetic material and new species that may be able to survive in new environments.

42. What does the passage mainly discuss?

- (A) The cause of the extinction of the dinosaurs
- (B) The variety of species found in tropical rain forests
- (C) The impact of human activities on Earth's ecosystems
- (D) The time required for species to adapt to new environments

43. The word "critical" in line 1 is closest in meaning to

- (A) negative
- (B) essential
- (C) interesting
- (D) complicated

44. The word "jolting" in line 5 is closest in meaning to

- (A) predicted
- (B) shocking
- (C) unknown
- (D) illuminating

45. The author mentions the reduction of the variety of species on Earth in lines 11-12 to suggest that

- (A) new habitats can be created for species
- (B) humans are often made ill by polluted water
- (C) some species have been made extinct by human activity
- (D) an understanding of evolution can prevent certain species from disappearing

46. The author mentions all of the following as examples of the effect of humans on the world's ecosystems EXCEPT

- (A) destruction of the tropical rain forests
- (B) habitat destruction in wetlands
- (C) damage to marine ecosystems
- (D) the introduction of new varieties of plant species

47. The author mentions the extinction of the dinosaurs in the second paragraph to emphasize that

- (A) the cause of the dinosaurs' extinction is unknown
- (B) Earth's climate has changed significantly since the dinosaurs' extinction
- (C) not all mass extinctions have been caused by human activity
- (D) actions by humans could not stop the irreversible process of a species' extinction

48. The word "magnitude" in line 20 is closest in meaning to

- (A) concern
- (B) determination
- (C) carelessness
- (D) extent

**PRACTICE TEST 24 – August 1998**

49. According to the passage, natural evolutionary change is different from changes caused by humans in that changes caused by humans
- (A) are occurring at a much faster rate
  - (B) are less devastating to most species
  - (C) affect fewer ecosystems
  - (D) are reversible
50. With which of the following statements would the author be most likely to agree?
- (A) Human influence on ecosystems should not be a factor in determining public policy.
  - (B) The extinction of a few species is an acceptable consequence of human progress.
  - (C) Technology will provide solutions to problems caused by the destruction of ecosystems.
  - (D) Humans should be more conscious of the influence they have on ecosystems.

# PRACTICE TEST 25

## October 1998

### Questions 1-10

The conservatism of the early English colonists in North American, their strong attachment to the English way of doing things, would play a major part in the furniture that was made in New England. The very tools that the first New England furniture makers used were, after all, not much different from those used for centuries-even  
*Line* (5) millennia: basic hammers, saws, chisels, planes, augers, compasses, and measures. These were the tools used more or less by all people who worked with wood: carpenters, barrel makers, and shipwrights. At most the furniture makers might have had planes with special edges or more delicate chisels, but there could not have been much specialization in the early years of the colonies.

(10) The furniture makers in those early decades of the 1600's were known as "joiners", for the primary method of constructing furniture, at least among the English of this time, was that of mortise-and-tenon joinery. The mortise is the hole chiseled and cut into one piece of wood, while the tenon is the tongue of protruding element shaped from another piece of wood so that it fits into the mortise; and another small hole is  
*(15)* then drilled (with the auger) through the mortised end and the tenon so that a whittled peg can secure the joint-thus the term "joiner". Panels were fitted into slots on the basic frames. This kind of construction was used for making everything from houses to chests.

(20) Relatively little hardware was used during this period. Some nails-forged by hand-were used, but no screws or glue, hinges were often made of leather, but metal hinges were also used. The cruder varieties were made by blacksmiths in the colonies, but the finer metal elements were imported. Locks and escutcheon plates-the latter to shield the wood from the metal key-would often be imported.

(25) Above all, what the early English colonists imported was their knowledge of familiarity with, and dedication to the traditional types and designs of furniture they knew in England.

1. The phrase "attachment to" in line 2 is closest in meaning to  
(A) control of                      (B) distance from                      (C) curiosity about                      (D) preference for
2. The word "protruding" in line 13 is closest in meaning to  
(A) parallel                      (B) simple                      (C) projecting                      (D) important
3. The relationship of a mortise and a tenon is most similar to that of  
(A) a lock and a key                      (B) a book and its cover  
(C) a cup and a saucer                      (D) a hammer and a nail
4. For what purpose did woodworkers use an auger?  
(A) to whittle a peg                      (B) to make a tenon  
(C) to drill a hole                      (D) to measure a panel
5. Which of the following were NOT used in the construction of colonial furniture?  
(A) Mortises                      (B) Nails                      (C) Hinges                      (D) Screws
6. The author implies that colonial metalworkers were  
(A) unable to make elaborate parts                      (B) more skilled than woodworkers

- (C) more conservative than other colonists (D) frequently employed by joiners
7. The word "shield" in line 23 closest in meaning to  
(A) decorate (B) copy (C) shape (D) protect
8. The word "they" in line 25 refers to  
(A) designs (B) types (C) colonists (D) all
9. The author implies that the colonial joiners  
(A) were highly paid  
(B) based their furniture on English models  
(C) used many specialized tools  
(D) had to adjust to using new kinds of wood in New England
10. Which of the following terms does the author explain in the passage?  
(A) "millennia" (line 5) (B) "joiners" (line 10)  
(C) "whittled" (line 15) (D) "blacksmiths" (line 21)

### Questions 11-20

In addition to their military role, the forts of the nineteenth century provided numerous other benefits for the American West. The establishment of these posts opened new roads and provided for the protection of daring adventurers and expeditions as well as established settlers. Forts also serve as bases where enterprising entrepreneurs could bring commerce to the West, providing supplies and refreshments to soldiers as well as to pioneers. Posts like fort Laramie provided supplies for wagon trains traveling the natural highways toward new frontiers. Some posts became stations for the pony express; still others, such as Fort Davis, were stagecoach stops for weary travelers. All of these functions, of course, suggest that the contributions of the forts to the civilization and development of the West extended beyond patrol duty.

Through the establishment of military posts, yet other contributions were made to the development of western culture. Many posts maintained libraries or reading rooms, and some-for example, Fort Davis-had schools. Post chapels provided a setting for religious services and weddings. Throughout the wilderness, post bands provided entertainment and boosted morale. During the last part of the nineteenth century, to reduce expenses, gardening was encouraged at the forts, thus making experimental agriculture another activity of the military. The military stationed at the various forts also played a role in civilian life by assisting in maintaining order and civilian officials often called on the army for protection.

Certainly among other significant contributions the army made to the improvement of the conditions of life was the investigation of the relationships among health, climate and architecture. From the earliest colonial times throughout the nineteenth century, disease ranked as the foremost problem in defense. It slowed construction of forts and inhibited their military function. Official documents from many regions contained innumerable reports of sickness that virtually incapacitated entire garrisons. In response to the problems, detailed observations of architecture and climate and their relationships to the frequency of the occurrence of various diseases were recorded at various posts across the nation by military surgeons.

11. Which of the following statements best expresses the main idea of the passage?  
(A) By the nineteenth century, forts were no longer used by the military.  
(B) Surgeons at forts could not prevent outbreaks of disease.

- (C) Forts were important to the development of the American West.  
 (D) Life in nineteenth-century forts was very rough.
12. The word "daring" in line 3 is closest in meaning to  
 (A) lost (B) bold (C) lively (D) foolish
13. Which of the following would a traveler be LEAST likely to obtain at Fort Laramie?  
 (A) Fresh water (B) Food (C) Formal clothing (D) Lodging
14. The word "others" in line 8 refers to  
 (A) post (B) wagon trains (C) frontiers (D) highways
15. The word "boosted" in line 15 is closest in meaning to  
 (A) influenced (B) established (C) raised (D) maintained
16. Which of the following is the most likely inference about the decision to promote gardening at forts?  
 (A) It was expensive to import produce from far away  
 (B) Food brought in from outside was often spoiled.  
 (C) Gardening was a way to occupy otherwise idle soldiers.  
 (D) The soil near the forts was very fertile.
17. According to the passage, which of the following posed the biggest obstacle to the development of military forts?  
 (A) Insufficient shelter (B) Shortage of materials  
 (C) Attacks by wild animals (D) Illness
18. The word "inhibited" in line 24 is closest in meaning to  
 (A) involved (B) exploited (C) united (D) hindered
19. How did the military assist in the investigation of health problems?  
 (A) By registering annual birth and death rates  
 (B) By experimenting with different building materials  
 (C) By maintaining records of disease and potential causes  
 (D) By monitoring the soldiers' diets
20. The author organizes the discussion of forts by  
 (A) describing their locations  
 (B) comparing their sizes.  
 (C) explaining their damage to the environment  
 (D) listing their contributions to western life

### Questions 21-30

- Anyone who has handled a fossilized bone knows that it is usually not exactly like its modern counterpart, the most obvious difference being that it is often much heavier. Fossils often have the quality of stone rather than of organic materials, and this has led
- Line* to the use of the term "petrification" (to bring about rock). The implication is that bone  
 (5) and other tissues have somehow been turned into stone, and this is certainly the explanation given in some texts. But it is a wrong interpretation; fossils are frequently so dense because the pores and other spaces in the bone have become filled with minerals taken up from the surrounding sediments. Some fossil bones have all the interstitial spaces filled with foreign minerals, including the marrow cavity, if there is
- (10) one, while others have taken up but little from their surrounding. Probably all of the minerals deposited within the bone have been recrystallized from solution by the action of water percolating through them. The degree of mineralization appears to be determined

**PRACTICE TEST 25 – October 1998**

- by the nature of the environment in which the bone was deposited and not by the antiquity of the bone. For example, the black fossil bones that are so common in many parts of Florida are heavily mineralized, but they are only about 20,000 years old, whereas many of the dinosaur bones from western Canada, which are about 75 million years old, are only partially filled in. Under optimum conditions the process of mineralization probably takes thousands rather than millions of years perhaps considerably less.
- (15) This amount of change that has occurred in fossil bone, even in bone as old as that of dinosaurs, is often remarkably small. We are therefore usually able to see the microscopic structure of the bone, including such fine details as the lacunae where the living bone cells once resided. The natural bone mineral, the hydroxyapatite, is virtually unaltered too—it has the same crystal structure as that of modern bone.
- (25) Although nothing remains of the original collagen, some of its component amino acids are usually still detectable, together with amino acids of the noncollagen proteins of bone.

21. What does the passage mainly discuss?  
(A) The location of fossils in North America  
(B) The composition of fossils  
(C) Determining the size and weight of fossils  
(D) Procedures for analyzing fossils
22. The word "counterpart" in line 2 is closest in meaning to  
(A) species (B) version (C) change (D) material
23. Why is fossilized bone heavier than ordinary bone?  
(A) Bone tissue solidifies with age. (B) The marrow cavity gradually fills with water.  
(C) The organic materials turn to stone. (D) Spaces within the bone fill with minerals.
24. The word "pores" in line 7 is closest in meaning to  
(A) joints (B) tissues (C) lines (D) holes
25. What can be inferred about a fossil with a high degree of mineralization?  
(A) It was exposed to large amounts of mineral-laden water throughout time.  
(B) Mineralization was complete within one year of the animal's death.  
(C) Many colorful crystals can be found in such a fossil.  
(D) It was discovered in western Canada.
26. Which of the following factors is most important in determining the extent of mineralization fossil bones?  
(A) The age of the fossil  
(B) Environmental conditions  
(C) The location of the bone in the animal's body  
(D) The type of animal the bone came from
27. Why does the author compare fossils found in western Canada to those found in Florida?  
(A) To prove that a fossil's age cannot be determined by the amount of mineralization.  
(B) To discuss the large quantity of fossils found in both places.  
(C) To suggest that fossils found in both places were the same age  
(D) To explain why scientists are especially interested in Canadian fossils.
28. The word "it" in line 24 refers to  
(A) hydroxyapatite (B) microscopic structure  
(C) crystal structure (D) modern bone

29. The word "detectable" in line 26 is closest in meaning to  
 (A) sizable (B) active (C) moist (D) apparent
30. Which of the following does NOT survive in fossils?  
 (A) Noncollagen protein (B) Hydroxyapatite  
 (C) Collagen (D) Amino acid

### Questions 31-40

In the last third of the nineteenth century a new housing form was quietly being developed. In 1869 the Stuyvesant, considered New York's first apartment house, was built on East Eighteenth Street. The building was financed by the developed Rutherford  
*Line* Stuyvesant and designed by Richard Morris Hunt, the first American architect to graduate  
 (5) from the Ecole des Beaux Arts in Paris. Each man had lived in Paris, and each understood the economic and social potential of this Parisian housing form. But the Stuyvesant was at best a limited success. In spite of Hunt's inviting facade, the living space was awkwardly arranged. Those who could afford them were quite content to reunion in the more sumptuous, single-family homes, leaving the Stuyvesant to young married couples  
 (10) and bachelors.

The fundamental problem with the Stuyvesant and the other early apartment buildings that quickly followed, in the late 1870's and early 1880's, was that they were confined to the typical New York building lot. That lot was a rectangular area 25 feet wide by 100 feet deep—a shape perfectly suited for a row house. The lot could also accommodate  
 (15) a rectangular tenement, though it could not yield the square, well-lighted, and logically arranged rooms that great apartment buildings require. But even with the awkward interior configurations of the early apartment buildings, the idea caught on. It met the needs of a large and growing population that wanted something better than tenements but could not afford or did not want row houses.

(20) So while the city's newly emerging social leadership commissioned their mansions, apartment houses and hotels began to sprout on multiple lots, thus breaking the initial space constraints. In the closing decades of the nineteenth century, large apartment houses began dotting the developed portions of New York City, and by the opening decades of the twentieth century, spacious buildings, such as the Dakota and the Ansonia,  
 (25) finally transcended the light confinement of row house building lots. From there it was only a small step to building luxury apartment houses on the newly created Park Avenue, right next to the fashionable Fifth avenue shopping area.

31. The new housing form discussed in the passage refers to  
 (A) single-family homes (B) apartment buildings  
 (C) row houses (D) hotels
32. The word "inviting" in line 7 is closest in meaning to  
 (A) open (B) encouraging (C) attractive (D) asking
33. Why was the Stuyvesant a limited success?  
 (A) The arrangement of the rooms was not convenient  
 (B) Most people could not afford to live there.  
 (C) There were no shopping areas nearby.  
 (D) It was in a crowded neighborhood.
34. The word "sumptuous" in line 9 is closest in meaning to  
 (A) luxurious (B) unique (C) modern (D) distant
35. It can be inferred that the majority of people who live in New York's first apartments were

- (A) highly educated      (B) unemployed      (C) wealthy      (D) young

36. ???

37. It can be inferred that a New York apartment building in the 1870's and 1880's had all of the following characteristics EXCEPT:

- (A) Its room arrangement was not logical.      (B) It was rectangular.  
(C) It was spacious inside.      (D) It had limited light.

38. The word "yield" in line 15 is closest in meaning to

- (A) harvest      (B) surrender      (C) amount      (D) provide

39. Why did the idea of living in an apartment become popular in the late 1800's?

- (A) Large families needed housing with sufficient space.  
(B) Apartments were preferable to tenements and cheaper than row houses.  
(C) The city official of New York wanted housing that was centrally located.  
(D) The shape of early apartments could accommodate a variety of interior designs.

40. The author mentions the Dakota and the Ansonia in line 24 because

- (A) they are examples of large, well-designed apartment buildings  
(B) their design is similar to that of row houses  
(C) they were build on a single building lot  
(D) they are famous hotels

### Questions 41-50

A snowfall consists of myriads of minute ice crystals that fall to the ground in the form of frozen precipitation. The formation of snow begins with these ice crystals in the subfreezing strata of the middle and upper atmosphere when there is an adequate supply of moisture present. At the core of every ice crystal is a minuscule nucleus, a solid particle of matter around which moisture condenses and freezes. Liquid water droplets floating in the supermodel atmosphere and free ice crystals cannot coexist within the same cloud, since the vapor pressure of ice is less than that of water. This enables the ice crystals to rob the liquid droplets of their moisture and grow continuously.

*Line* (5)

The process can be very rapid, quickly creating sizable ice crystals, some of which adhere to each other to create a cluster of ice crystals or a snowflake. Simple flakes possess a variety of beautiful forms, usually hexagonal, though the symmetrical shapes reproduced in most microscope photography of snowflakes are not usually found in actual snowfall. Typically, snowflakes in actual snowfalls consist of broken fragments and clusters of adhering ice crystals.

(10)

(15) For a snowfall to continue once it starts, there must be a constant inflow of moisture to supply the nuclei. This moisture is supplied by the passage of an airstream over a water surface and its subsequent lifting to higher regions of the atmosphere. The Pacific Ocean is the source of moisture for most snowfalls west of the Rocky Mountains, while the Gulf of Mexico and the Atlantic Ocean feed water vapor into the air currents over the central and eastern sections of the United States. Other geographical features also can be the source of moisture for some snowstorms. For example, areas adjacent to the Great Lakes experience their own unique lake-effect storms, employing a variation of the process on a local scale. In addition, mountainous sections or rising terrain can

(20)



initiate snowfalls by the geographical lifting of a moist airstream.

41. Which of the following questions does the author answer in the first paragraph?  
 (A) Why are snowflakes hexagonal?  
 (B) What is the optimum temperature for snow?  
 (C) In which months does most snow fall?  
 (D) How are snowflakes formed?
42. The word "minute" in line 1 is closest in meaning to  
 (A) tiny (B) quick (C) clear (D) sharp
43. What is at the center of an ice crystal?  
 (A) A small snowflake (B) A nucleus  
 (C) A drop of water (D) A hexagon
44. The word "adhere" in line 10 is closest in meaning to  
 (A) belong (B) relate (C) stick (D) speed
45. What is the main topic of the second paragraph?  
 (A) How ice crystals form  
 (B) How moisture affects temperature  
 (C) What happens when ice crystals melt  
 (D) Where the moisture to supply the nuclei comes from
46. The word "it" in line 15 refers to  
 (A) snowfall (B) snowflake (C) cluster (D) moisture
47. What is necessary for a snowfall to persist?  
 (A) A decrease in the number of snowflakes  
 (B) Lowered vapor pressure in the crystals  
 (C) A continuous infusion of moisture  
 (D) A change in the direction of the airstream
48. How do lake-effect snowstorms form?  
 (A) Water temperatures drop below freezing  
 (B) Moisture rises from a lake into the airstream.  
 (C) Large quantities of wet air come off a nearby mountain  
 (D) Millions of ice crystals form on the surface of a large lake.
49. The word "initiate" in line 24 is closest in meaning to  
 (A) enhance (B) alter (C) increase (D) begin
50. Which of the following could account for the lack of snowfall in a geographical location close to mountains and a major water source?  
 (A) ground temperatures below the freezing point  
 (B) too much moisture in the air  
 (C) too much wind off the mountains  
 (D) atmospheric temperatures above the freezing point

# PRACTICE TEST 26

## December 1998

### Questions 1-9

The geology of the Earth's surface is dominated by the particular properties of water. Present on Earth in solid, liquid, and gaseous states, water is exceptionally reactive. It dissolves, transports, and precipitates many chemical compounds and is constantly modifying the face of the Earth.

- (5) Evaporated from the oceans, water vapor forms clouds, some of which are transported by wind over the continents. Condensation from the clouds provides the essential agent of continental erosion: rain. Precipitated onto the ground, the water trickles down to form brooks, streams, and rivers, constituting what is called the hydrographic network. This immense polarized network channels the water toward a single receptacle: an ocean. Gravity dominates this entire step in the cycle because water tends to minimize its potential energy by running from high altitudes toward the reference point that is sea level.

- (15) The rate at which a molecule of water passes through the cycle is not random but is a measure of the relative size of the various reservoirs. If we define residence time as the average time for a water molecule to pass through one of the three reservoirs—atmosphere, continent, and ocean—we see that the times are very different. A water molecule stays, on average, eleven days in the atmosphere, one hundred years on a continent and forty thousand years in the ocean. This last figure shows the importance of the ocean as the principal reservoir of the hydrosphere but also the rapidity of water transport on the continents.

- (20) A vast chemical separation process takes place during the flow of water over the continents. Soluble ions such as calcium, sodium, potassium, and some magnesium are dissolved and transported. Insoluble ions such as aluminum, iron, and silicon stay where they are and form the thin, fertile skin of soil on which vegetation can grow. Sometimes soils are destroyed and transported mechanically during flooding. The erosion of the continents thus results from two closely linked and interdependent processes, chemical erosion and mechanical erosion. Their respective interactions and efficiency depend on different factors.

1. The word "modifying" in line 4 is closest in meaning to  
(A) changing                      (B) traveling                      (C) describing                      (D) destroying
2. The word "which" in line 5 refers to  
(A) clouds                      (B) oceans                      (C) continents                      (D) compounds
3. According to the passage, clouds are primarily formed by water  
(A) precipitating onto the ground                      (B) changing from a solid to a liquid state  
(C) evaporating from the oceans                      (D) being carried by wind
4. The passage suggests that the purpose of the "hydrographic network" (line 9) is to  
(A) determine the size of molecules of water  
(B) prevent soil erosion caused by flooding  
(C) move water from the Earth's surface to the oceans  
(D) regulate the rate of water flow from streams and rivers

5. What determines the rate at which a molecule of water moves through the cycle, as discussed in the third paragraph?
- (A) The potential energy contained in water  
 (B) The effects of atmospheric pressure on chemical compounds  
 (C) The amounts of rainfall that fall on the continents  
 (D) The relative size of the water storage areas
6. The word "rapidity" in line 19 is closest in meaning to
- (A) significance                      (B) method                      (C) swiftness                      (D) reliability
7. The word "they" in line 24 refers to
- (A) insoluble ions                      (B) soluble ions                      (C) soils                      (D) continents
8. All of the following are example of soluble ions EXCEPT
- (A) magnesium                      (B) iron                      (C) potassium                      (D) calcium
9. The word "efficiency" in line 28 is closest in meaning to
- (A) relationship                      (B) growth                      (C) influence                      (D) effectiveness

### Questions 10-19

Among the species of seabirds that use the windswept cliffs of the Atlantic coast of Canada in the summer to mate, lay eggs, and rear their young are common murrelets, Atlantic puffins, black-legged kittiwakes, and northern gannets. Of all the birds on these cliffs, the black-legged kittiwake gull is the best suited for nesting on narrow ledges. Although its nesting habits are similar to those of gulls that nest on flat ground, there are a number of important differences related to the cliff-nesting habit.

The advantage of nesting on cliffs is the immunity it gives from foxes, which cannot scale the sheer rocks, and from ravens and other species of gulls, which have difficulty in landing on narrow ledges to steal eggs. This immunity has been followed by a relaxation of the defenses, and kittiwakes do not react to predators nearly as fiercely as do ground-nesting gulls. A colony of Bonaparte's gulls responds to the appearance of a predatory herring gull by flying up as a group with a clamor of alarm calls, followed by concerted mobbing, but kittiwakes dimly ignore herring gulls, since they pose little threat to nests on cliffs. Neither do kittiwakes attempt to conceal their nest. Most gulls keep the nest area clear of droppings, and remove empty eggshells after the chicks have hatched, so that the location of the nest is not given away. Kittiwakes defecate over the edge of the nest, which keeps it clean, but this practice, as well as their tendency to leave the nest littered with eggshells, makes its location very conspicuous.

On the other hand, nesting on a narrow ledge has its own peculiar problems, and kittiwake behavior has become adapted to overcome them. The female kittiwake sits when mating, whereas other gulls stand, so the pair will not overbalance and fall off the ledge. The nest is a deep cup, made of mud or seaweed, to hold the eggs safely, compared with the shallow scrape of other gulls, and the chicks are remarkably immobile until fully grown. They do not run from their nests when approached, and if they should come near to the cliff edge, they instinctively turn back.

10. What aspect of the kittiwake gull does the passage mainly discuss?
- (A) Its defensive behavior

- (B) Its interactions with other gull species  
(C) Its nesting habits  
(D) Its physical difference from other gull species
11. The word "rear" in line 2 is closest in meaning to  
(A) visit (B) watch (C) reverse (D) raise
12. The word "scale" in line 8 is closest in meaning to  
(A) climb (B) avoid (C) approach (D) measure
13. The word "immunity" in line 9 is closest in meaning to  
(A) distance (B) transition (C) protection (D) reminder
14. Why is it difficult for ravens to steal the kittiwakes' eggs?  
(A) The kittiwakes can see the ravens approaching the nest.  
(B) The ravens cannot land on the narrow ledges where kittiwakes nest.  
(C) The kittiwakes' eggs are too big for the ravens to carry.  
(D) The female kittiwakes rarely leave the nest.
15. The author mentions that eggshells litter the nests of kittiwakes in order to  
(A) demonstrate that kittiwakes are not concerned about predators  
(B) prove how busy kittiwakes are in caring for their offspring  
(C) show a similarity to other types of gulls  
(D) illustrate kittiwakes' lack of concern for their chicks
16. According to the passage, it can be inferred that which of the following birds conceal their nest?  
(A) Bonaparte's gulls (B) Atlantic puffins  
(C) Kittiwake gulls (D) Northern gannets
17. The word "it" in line 17 refers to  
(A) location (B) edge (C) nest (D) practice
18. The word "conspicuous" in line 19 is closest in meaning to  
(A) disordered (B) suspicious (C) noticeable (D) appealing
19. The phrase "On the other hand" in line 20 is closest in meaning to  
(A) therefore (B) however (C) for example (D) by no means

**Questions 20-29**

Throughout the nineteenth century and into the twentieth, citizens of the United States maintained a bias against big cities. Most lived on farms and in small towns and believed cities to be centers of corruption, crime, poverty, and moral degradation. Their distrust was caused, in part, by a national ideology that proclaimed farming the greatest  
*Line* occupation and rural living superior to urban living. This attitude prevailed even as the  
(5) number of urban dwellers increased and cities became an essential feature of the national landscape. Gradually, economic reality overcame ideology. Thousands abandoned the precarious life on the farm for more secure and better paying jobs in the city. But when these people migrated from the countryside, they carried their fears and  
(10) suspicious with them. These new urbanities, already convinced that cities were overwhelmed with great problems, eagerly embraced the progressive reforms that promised to bring order out of the chaos of the city.

One of many reforms came in the area of public utilities. Water and sewerage systems were usually operated by municipal governments, but the gas and electric  
(15) networks were privately owned. Reformers feared that the privately owned utility

companies would charge exorbitant rates for these essential services and deliver them only to people who could afford them. Some city and state governments responded by regulating the utility companies, but a number of cities began to supply these services themselves. Proponents of these reforms argued that public ownership and regulation would insure widespread access to these utilities and guarantee a fair price.

While some reforms focused on government and public behavior, others looked at the cities as a whole. Civic leaders, convinced that physical environment influenced human behavior, argued that cities should develop master plans to guide their future growth and development. City planning was nothing new, but the rapid industrialization and urban growth of the late nineteenth century took place without any consideration for order. Urban renewal in the twentieth century followed several courses. Some cities introduced plans to completely rebuild the city core. Most other cities contented themselves with zoning plans for regulating future growth. Certain parts of town were restricted to residential use, while others were set aside for industrial or commercial development.

20. What does the passage mainly discuss?  
 (A) A comparison of urban and rural life in the early twentieth century  
 (B) The role of government in twentieth-century urban renewal  
 (C) Efforts to improve urban life in the early twentieth century  
 (D) Methods of controlling urban growth in the twentieth century
21. The word "bias" in line 2 is closest in meaning to  
 (A) diagonal (B) slope (C) distortion (D) prejudice
22. The first paragraph suggests that most people who lived in rural areas  
 (A) were suspicious of their neighbors  
 (B) were very proud of their lifestyle  
 (C) believed city government had too much power  
 (D) wanted to move to the cities
23. In the early twentieth century, many rural dwellers migrated to the city in order to  
 (A) participate in the urban reform movement  
 (B) seek financial security  
 (C) comply with a government ordinance  
 (D) avoid crime and corruption
24. The word "embraced" in line 11 is closest in meaning to  
 (A) suggested (B) overestimated (C) demanded (D) welcomed
25. What concern did reformers have about privately owned utility companies?  
 (A) They feared the services would not be made available to all city dwellers.  
 (B) They believed private ownership would slow economic growth  
 (C) They did not trust the companies to obey the government regulations.  
 (D) They wanted to ensure that the services would be provided to rural areas.
26. The word "exorbitant" in line 16 is closest in meaning to  
 (A) additional (B) expensive (C) various (D) modified
27. All of the following were the direct result of public utility reforms EXCEPT  
 (A) local governments determined the rates charged by private utility companies  
 (B) some utility companies were owned and operated by local governments  
 (C) the availability of services was regulated by local government  
 (D) private utility companies were required to pay a fee to local governments

28. The word "Proponents" in line 19 is closest in meaning to  
(A) Experts (B) Pioneers (C) Reviewers (D) Supporters

29. Why does the author mention "industrialization" (line 24)?  
(A) To explain how fast urban growth led to poorly designed cities  
(B) To emphasize the economic importance of urban areas  
(C) To suggest that labor disputes had become an urban problem  
(D) To illustrate the need for construction of new factories

### Questions 30-39

By 1776 the fine art of painting as it had developed in western Europe up to this time had been introduced into the American colonies through books and prints, European visitors and immigrants, and traveling colonists who brought back copies  
*Line* (and a few original) of old master paintings and acquaintance with European art  
(5) institutions.

By the outbreak of the Revolution against British rule in 1776, the status of the artists had already undergone change. In the mid-eighteenth century, painters had been willing to assume such artisan-related tasks as varnishing, gilding teaching, keeping shops, and painting wheel carriages, houses, and signs. The terminology by which  
(10) artists were described at the time suggests their status: "limner" was usually applied to the anonymous portrait painter up to the 1760's: "painter" characterized anyone who could paint a flat surface. By the second half of the century, colonial artists who were trained in England or educated in the classics rejected the status of laborer and thought of themselves as artists. Some colonial urban portraitists, such as John Singleton Copley,  
(15) Benjamin West, and Charles Wilson Peale, consorted with affluent patrons. Although subject to fluctuations in their economic status, all three enjoyed sufficient patronage to allow them to maintain an image of themselves as professional artists, an image indicated by their custom of signing their paintings. A few art collectors James Bowdoin III of Boston, William Byrd of Virginian, and the Aliens and Hamiltons of  
(20) Philadelphia introduced European art traditions to those colonists privileged to visit their galleries, especially aspiring artists, and established in their respective communities the idea of the value of art and the need for institutions devoted to its encouragement.

Although the colonists tended to favor portraits, they also accepted landscapes,  
(25) historical works, and political engravings as appropriate artistic subjects. With the coming of independence from the British Crown, a sufficient number of artists and their works were available to serve nationalistic purposes. The achievements of the colonial artists, particularly those of Copley, West, and Peale, lent credence to the boast that the new nation was capable of encouraging genius and that political liberty was congenial  
(30) to the development of taste—a necessary step before art could assume an important role in the new republic.

30. What does the passage mainly discuss?  
(A) European influence on colonial American painting  
(B) The importance of patronage to artist  
(C) The changing status of artists in the American colonies in the eighteenth century

- (D) Subjects preferred by artists in the American colonies in the eighteenth century.
31. The word "outbreak" in line 6 is closest in meaning to  
 (A) cause (B) beginning (C) position (D) explanation
32. The word "undergone" in line 7 is closest in meaning to  
 (A) led to (B) transformed (C) preferred (D) experienced
33. According to the passage, before the American Revolution the main task of limners was to  
 (A) paint wheel carriages (B) paint portraits  
 (C) varnish furniture (D) paint flat surfaces
34. It can be inferred from the passage that artists who were trained in England  
 (A) considered artists to be superior to painters  
 (B) barely painted portraitists  
 (C) were often very wealthy  
 (D) imitated English painters
35. The word "consorted" in line 15 is closest in meaning to  
 (A) made decisions (B) studies (C) agreed (D) associated
36. The word "sufficient" in line 16 is closest in meaning to  
 (A) adequate (B) temporary (C) friendly (D) expensive
37. According to the passage, artists such as Copley, West and Peal signed their paintings because it  
 (A) increased the monetary value of the paintings  
 (B) made it more difficult for other artists to copy the paintings  
 (C) supported the artists' image of professionalism  
 (D) distinguished colonial American artists from European artists
38. The author mentions James Bowdoin III and William Byrd in line 19 as examples of which of the following?  
 (A) Art gallery owners who displayed only European art  
 (B) Art collectors who had a profound influence on American attitudes toward art  
 (C) Artists who gave financial support to other artists  
 (D) Patrons whose helped to encourage artisans to become artists
39. With which of the following would the author be most likely to agree?  
 (A) Countries that have not had a political revolution are unlikely to develop great art.  
 (B) The most successful art collectors are usually artists themselves.  
 (C) The value of colonial American paintings decreased after the Revolution.  
 (D) Colonial artists made an important contribution to the evolving culture of the new nation.

### Questions 40-50

Railroads reshaped the North American environment and reoriented North American behavior. "In a quarter of a century", claimed the *Omaha Daily Republican* in 1883, "they have made the people of the United States homogeneous, breaking through *Line* the peculiarities and provincialisms which marked separate and unmingling sections."

- (5) The railroad simultaneously stripped the landscape of the natural resources, made velocity of transport and economy of scale necessary parts of industrial production, and carried consumer goods to households; it dispatched immigrants to unsettled places, drew emigrants away from farms and villages to cities, and sent men and guns to battle. It standardized time and travel, seeking to annihilate distance and space by allowing

- (10) movement at any time and in any season or type of weather. In its grand and impressive terminals and stations, architects recreated historic Roman temples and public baths, French chateaus and Italian bell towers—edifices that people used as stages for many of everyday life's high emotions: meeting and parting, waiting and worrying, planning new starts or coming home.
- (15) Passenger terminals, like the luxury express trains that hurled people over spots, spotlight the romance of railroading. (The twentieth-Century Limited sped between Chicago and New York in twenty hours by 1915). Equally important to everyday life were the slow freight trans chugging through industrial zones, the morning and evening commuter locals shuttling back ions and urban terminals, and the incessant
- (20) comings and goings that occurred in the classifications, or switching, yards. Moreover, in addition to its being a transportation pathway equipped with a mammoth physical plant of tracks signals, crossings, bridges, and junctions, plus telegraph and telephone lines the railroad nurtured factory complexes, coal piles, warehouses, and generating stations, forming along its right-of-way what has aptly been called "the metropolitan
- (25) corridor" of the American landscape.

**40.** What does the passage mainly discuss?

- (A) The influence of ancient architecture on the design of railroad terminals
- (B) The importance of natural resources in the development of railroads
- (C) The railroad's impact on daily life in the United States in the nineteenth century
- (D) Technological improvements in the area of communication in the nineteenth century

**41.** It can be inferred from the quote from the Omaha Daily Republican (line 2-5) that railroads

- (A) made all sections of the nation much wealthier
- (B) brought more unity to what had been a fragmented nation
- (C) reduced dependence on natural resources
- (D) had no effect on the environment of the United States

**42.** The word "it" in line 7 refers to

- (A) transport
- (B) scale
- (C) production
- (D) railroad

**43.** The word "drew" in line 8 is closest

- (A) obliged
- (B) designed
- (C) helped
- (D) attracted

**44.** The word "annihilate" in line 9 is closest in meaning to

- (A) conquer
- (B) utilize
- (C) separate
- (D) mechanize

**45.** The word "Moreover" in line 20 is closest in meaning to

- (A) consequently
- (B) furthermore
- (C) although
- (D) because

**46.** All of the following were true of impressive passenger terminals EXCEPT:

- (A) Their architecture was influenced by the architecture of Europe.
- (B) Luxury express trains traveled between them.
- (C) They were usually located in small towns.
- (D) They were important to many commuters.

**47.** According to the passage, which type of development lined the area along the metropolitan corridor?

- (A) Stores and shopping areas
- (B) Recreational areas
- (C) Industrial
- (D) Agricultural

**48.** The word "aptly" in line 24 is closest in meaning to

- (A) appropriately
- (B) virtually
- (C) consistently
- (D) incessantly

**49.** The author mentions the Twentieth-Century Limited as an example of



- (A) a freight train
- (C) a luxury train

- (B) a commuter train
- (D) an underground train

**50.** The author gives a synonym for which of the following words?

- (A) Homogeneous (line 3)
- (C) Temples (line 11)

- (B) Standardized (line 9)
- (D) Classification (line 20)

# PRACTICE TEST 27

## January 1997

### Question 1-8

Both the number and the percentage of people in the United States involved in nonagricultural pursuits expanded rapidly during the half century following the Civil War, with some of the most dramatic increases occurring in the domains of transportation, manufacturing, and trade and distribution. The development of the railroad and telegraph systems during the middle third of the nineteenth century led to significant improvements in the speed, volume, and regularity of shipments and communications, making possible a fundamental transformation in the production and distribution of goods.

In agriculture, the transformation was marked by the emergence of the grain elevators, the cotton presses, the warehouses, and the commodity exchanges that seemed to so many of the nation's farmers the visible sign of a vast conspiracy against them. In manufacturing, the transformation was marked by the emergence of a "new factory system" in which plants became larger, more complex, and more systematically organized and managed. And in distribution, the transformation was marked by the emergence of the jobber, the wholesaler, and the mass retailer. These changes radically altered the nature of work during the half century between 1870 and 1920.

To be sure, there were still small workshops, where skilled craftspeople manufactured products ranging from newspapers to cabinets to plumbing fixtures. There were the sweatshops in city tenements, where groups of men and women in household settings manufactured clothing or cigars on a piecework basis. And there were factories in occupations such as metalwork where individual contractors presided over what were essentially handicraft proprietorships that coexisted within a single building. But as the number of wage earners in manufacturing rose from 2.7 million in 1880 to 4.5 million in 1900 to 8.4 million in 1920, the number of huge plants like the Baldwin Locomotive Works in Philadelphia burgeoned, as did the size of the average plant. (The Baldwin Works had 600 employees in 1855, 3,000 in 1875, and 8,000 in 1900.) By 1920, at least in the northeastern United States where most of the nation's manufacturing wage earners were concentrated, three-quarters of those worked in factories with more than 100 employees and 30 percent worked in factories with more than 1,000 employees.

1. The word "domains" in line 3 is closest in meaning to  
(A) fields                      (B) locations                      (C) organizations                      (D) occupations
2. What can be inferred from the passage about the agricultural sector of the economy after the Civil War?  
(A) New technological developments had little effect on farmers.  
(B) The percentage of the total population working in agriculture declined.  
(C) Many farms destroyed in the war were rebuilt after the war.  
(D) Farmers achieved new prosperity because of better rural transportation.
3. The word "fundamental" in line 7 is closest in meaning to  
(A) possible                      (B) basic                      (C) gradual                      (D) unique
4. Which of the following was NOT mentioned as part of the "new factory system?"  
(A) A change in the organization of factories.  
(B) A growth in the complexity of factories.  
(C) An increase in the size of factories.  
(D) An increase in the cost of manufacturing industrial products.

5. Which of the following statements about manufacturing before 1870 can be inferred from the passage?  
 (A) Most manufacturing activity was highly organized.  
 (B) Most manufacturing occurred in relatively small plants.  
 (C) The most commonly manufactured goods were cotton presses.  
 (D) Manufacturing and agriculture each made up about half of the nation's economy.
6. The word "skilled" in line 16 is closest in meaning to  
 (A) hardworking (B) expert (C) well-paid (D) industrial
7. The word "presided over" in line 20 are closest in meaning to  
 (A) managed (B) led to (C) worked in (D) produced
8. The author mentions the Baldwin Locomotive Works in lines 23-24 because it was  
 (A) a well-known metal-works  
 (B) the first plant of its kind in Philadelphia  
 (C) typical of the large factories that were becoming more common  
 (D) typical of factories that consisted of a single building

### Question 9-19

Stars may be spheres, but not every celestial object is spherical. Objects in the universe show a variety of shapes: round planets (some with rings), tailed comets, wispy cosmic gas and dust clouds, ringed nebulae, pinwheel-shaped spiral galaxies, and so on. But none of the shapes on this list describes the largest single entities in the universe. These are the double radio sources, galaxies with huge clouds of radio emission that dwarf the visible galaxies, sometimes by a factor of a hundred or more. Stretching over distances greater than a million light-years, these radio-emitting regions resemble twin turbulent gas clouds, typically forming dumbbell-like shapes with the visible galaxy (when it is visible) in the center.

- (5) (10) These double radio sources present astronomers with a puzzle. Their radio emission arises from the synchrotron process, in which electrons accelerated to nearly the speed of light move through magnetic fields. However, in view of the rate at which the radio sources emit energy, they should disappear in a few million years as their electrons slow down and cease producing radiation. Somehow new electrons must be continually  
 (15) accelerated to nearly the speed of light, otherwise, by now almost none of the double radio sources would be observed.

With the advent of high-resolution radio interferometers during the late 1970's, part of the answer became clear: the electrons are produced in jets that are shot out in opposite directions from the center of galaxy. Remarkably narrow and highly directional,  
 (20) the jets move outward at speeds close to the speed of light. When the jets strike the highly rarefied gas that permeates intergalactic space, the fast-moving electrons lose their highly directional motion and form vast clouds of radio-emitting gas.

Cosmic jets have ranked among the hottest topics of astronomical research in recent years as astronomers strive to understand where they come from. Why should a galaxy  
 (25) eject matter at such tremendous speeds in two narrow jets? And why are such jets not seen in the Milky Way?

9. The word "celestial" in line 1 could best be replaced by  
 (A) visible (B) astronomical (C) glowing (D) scientific

10. The word "entities" in line 4 is closest in meaning to  
(A) factors (B) processes (C) objects (D) puzzles
11. In the first paragraph, the author describes objects in the universe in terms of their  
(A) color (B) origin (C) location (D) shape
12. ???
13. According to the passage, scientists do not fully understand why double radio sources  
(A) have not eventually disappeared (B) cannot be observed with a telescope  
(C) are beginning to slow down (D) are not as big as some planets and stars
14. The word "their" in line 22 refers to  
(A) speeds (B) directions (C) electrons (D) clouds
15. According to the passage, what happens when electrons and gas collide in space?  
(A) The gas becomes more condensed (B) The gas becomes less radiated  
(C) The electrons disperse (D) The electrons become negatively charged
16. The author suggests that astronomers consider the study of cosmic jets to be  
(A) an obsolete scientific field (B) an unprofitable venture  
(C) an intriguing challenge (D) a subjective debate
17. In what lines does the passage compare the size of double radio sources with that of other galaxies?  
(A) Lines 4-6 (B) Lines 12-14 (C) Lines 19-20 (D) Lines 23-24
18. Where in the passage does the author mention a technology that aided in the understanding of double radio sources?  
(A) Line 2 (B) Line 7 (C) Line 17 (D) Line 21
19. The paragraph following the passage most likely discusses  
(A) specific double radio sources  
(B) an explanation of the synchrotron process  
(C) possible reasons for the presence of cosmic jets  
(D) the discovery of the first double radio sources.

### Questions 20-28

The sculptural legacy that the new United States inherited from its colonial predecessors was far from a rich one, and in fact, in 1776 sculpture as an art form was still in the hands of artisans and craftspeople. Stone carvers engraved their motifs of skulls and crossbones and other religious icons of death into the gray slabs that we still  
*Line* see standing today in old burial grounds. Some skilled craftspeople made intricately  
(5) carved wooden ornamentations for furniture or architectural decorations, while others carved wooden shop signs and ships' figureheads. Although they often achieved expression and formal excellence in their generally primitive style, they remained artisans skilled in the craft of carving and constituted a group distinct from what we  
(10) normally think of as "sculptors" in today's use of the word.

On the rare occasion when a fine piece of sculpture was desired, Americans turned to foreign sculptors, as in the 1770's when the cities of New York and Charleston, South Carolina, commissioned the Englishman Joseph Wilton to make marble statues of William Pitt. Wilton also made a lead equestrian image of King George III that was  
(15) created in New York in 1770 and torn down by zealous patriots six years later. A few marble memorials with carved busts, urns, or other decorations were produced in

England and brought to the colonies to be set in the walls of churches-as in King's Chapel in Boston. But sculpture as a high art, practiced by artists who knew both the artistic theory of their Renaissance-Baroque-Rococo predecessors and the various (20) technical procedures of modeling, casting, and carving rich three-dimensional forms, was not known among Americans in 1776. Indeed, for many years thereafter, the United States had two groups from which to choose - either the local craftspeople or the imported talent of European sculptors.

The eighteenth century was not one in which powerful sculptural conceptions were (25) developed. Add to this the timidity with which unschooled artisans - originally trained as stonemasons, carpenters, or cabinetmakers - attacked the medium from which they sculpture made in the United States in the late eighteenth century.

20. What is the main idea of the passage?  
 (A) There was great demand for the work of eighteenth-century artisans.  
 (B) Skilled sculptors did not exist in the United States in the 1770's.  
 (C) Many foreign sculptors worked in the United States after 1776.  
 (D) American sculptors were hampered by a lack of tools and materials.
21. The word "motifs" in line 3 is closest in meaning to  
 (A) tools (B) prints (C) signatures (D) designs
22. The work of which of the following could be seen in burial grounds?  
 (A) European sculptors (B) Carpenters  
 (C) Stone carvers (D) Cabinetmakers
23. The word "other" in line 6 refers to  
 (A) craftspeople (B) decorations (C) ornamentations (D) shop signs
24. The word "distinct" in line 9 is closest in meaning to  
 (A) separate (B) assembled (C) notable (D) inferior
25. The word "rare" in line 11 is closest in meaning to  
 (A) festive (B) infrequent (C) delightful (D) unexpected
26. Why does the author mention Joseph Wilton in line 13?  
 (A) He was an English sculptor who did work in the United States.  
 (B) He was well known for his wood carvings.  
 (C) He produced sculpture for churches.  
 (D) He settled in the United States in 1776.
27. What can be inferred about the importation of marble memorials from England?  
 (A) Such sculpture was less expensive to produce locally than to import.  
 (B) Such sculpture was not available in the United States.  
 (C) Such sculpture was as prestigious as those made locally.  
 (D) The materials found abroad were superior.
28. How did the work of American carvers in 1776 differ from that of contemporary sculptors?  
 (A) It was less time-consuming. (B) It was more dangerous.  
 (C) It was more expensive. (D) It was less refined.

**Question 29-39**

Large animals that inhabit the desert have evolved a number of adaptations for reducing the effects of extreme heat. One adaptation is to be light in color, and to reflect rather than absorb the Sun's rays. Desert mammals also depart from the normal mammalian practice of maintaining a constant body temperature. Instead of trying to keep down the body temperature deep inside the body, which would involve the expenditure of water and energy, desert mammals allow their temperatures to rise to what would normally be fever height, and temperatures as high as 46 degrees Celsius have been measured in Grant's gazelles. The overheated body then cools down during the cold desert night, and indeed the temperature may fall unusually low by dawn, as low as 34 degrees Celsius in the camel. This is an advantage since the heat of the first few hours of daylight is absorbed in warming up the body, and an excessive buildup of heat does not begin until well into the day.

Another strategy of large desert animals is to tolerate the loss of body water to a point that would be fatal for non-adapted animals. The camel can lose up to 30 percent of its body weight as water without harm to itself, whereas human beings die after losing only 12 to 13 percent of their body weight. An equally important adaptation is the ability to replenish this water loss at one drink. Desert animals can drink prodigious volumes in a short time, and camels have been known to imbibe over 100 liters in a few minutes. A very dehydrated person, on the other hand, cannot drink enough water to rehydrate at one session, because the human stomach is not sufficiently big and because a too rapid dilution of the body fluids causes death from water intoxication. The tolerance of water loss is of obvious advantage in the desert, as animals do not have to remain near a water hole but can obtain food from grazing sparse and far-flung pastures. Desert-adapted mammals have the further ability to feed normally when extremely dehydrated, it is a common experience in people that appetite is lost even under conditions of moderate thirst.

29. What is the main topic of the passage?  
(A) Weather variations in the desert  
(B) Adaptations of desert animals  
(C) Diseases of desert animals  
(D) Human use of desert animals.
30. According to the passage, why is light coloring an advantage to large desert animals?  
(A) It helps them hide from predators.  
(B) It does not absorb sunlight as much as dark colors.  
(C) It helps them see their young at night  
(D) It keeps them cool at night.
31. The word "maintaining" in line 4 is closest in meaning to  
(A) measuring                      (B) inheriting                      (C) preserving                      (D) delaying
32. The author uses of Grant's gazelle as an example of  
(A) an animal with a low average temperature  
(B) an animal that is not as well adapted as the camel  
(C) a desert animal that can withstand high body temperatures  
(D) a desert animal with a constant body temperature

33. When is the internal temperature of a large desert mammal lower?  
 (A) Just before sunrise (B) In the middle of the day  
 (C) Just after sunset (D) Just after drinking
34. The word "tolerate" in line 13 is closest in meaning to  
 (A) endure (B) replace (C) compensate (D) reduce
35. What causes water intoxication?  
 (A) Drinking too much water very quickly (B) Drinking polluted water  
 (C) Bacteria in water (D) Lack of water.
36. What does the author imply about desert-adapted mammals?  
 (A) They do not need to eat much food. (B) They can eat large quantities quickly  
 (C) They easily lose their appetites. (D) They can travel long distances looking for food.
37. Why does the author mention humans in the second paragraph?  
 (A) To show how they use camels. (B) To contrast them to desert mammals.  
 (C) To give instructions about desert survival. (D) To show how they have adapted to desert life.
38. The word "obtain" in line 23 is closest in meaning to  
 (A) digest (B) carry (C) save (D) get
39. Which of the following is NOT mentioned as an adaptation of large desert animals?  
 (A) Variation in body temperatures (B) Eating while dehydrated  
 (C) Drinking water quickly (D) Being active at night.

### Questions 40-50

Rent control is the system whereby the local government tells building owners how much they can charge their tenants in rent. In the United States, rent controls date back to at least World War II.

*Line* In 1943 the federal government imposed rent controls to help solve the problem of  
 (5) housing shortages during wartime. The federal program ended after the war, but in some locations, including New York City, controls continued. Under New York's controls, a landlord generally cannot raise rents on apartments as long as the tenants continue to renew their leases. In places such as Santa Monica, California, rent controls are more recent. They were spurred by the inflation of the 1970's, which, combined  
 (10) with California's rapid population growth, pushed housing prices, as well as rents, to record levels. In 1979 Santa Monica's municipal government ordered landlords to roll back their rents to the levels charged in 1978. Future rents could only go up by two-thirds as much as any increase in the overall price level.

(15) In any housing market, rental prices perform three functions: (1) promoting the efficient maintenance of existing housing and stimulating the construction of new housing, (2) allocating existing scarce housing among competing claimants, and (3) rationing use of existing housing by potential renters.

(20) One result of rent control is a decrease in the construction of new rental units. Rent controls have artificially depressed the most important long-term determinant of profitability - rents. Consider some examples. In a recent year in Dallas, Texas, with a 16 percent rental vacancy rate but no rent control laws, 11,000 new housing units were built. In the same year, in San Francisco, California, only 2,000 units were built. The major difference? San Francisco has only a 1.6 percent vacancy rate but stringent rent control laws. In New York City, except for government-subsidized construction, the only

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- (25) rental units being built are luxury units, which are exempt from controls. In Santa Monica, California, new apartments are not being constructed. New office rental space and commercial developments are, however. They are exempt from rent controls.
40. What does the passage mainly discuss?  
(A) The construction of apartments in the United States.  
(B) Causes and effects of rent control  
(C) The fluctuations of rental prices  
(D) The shortage of affordable housing in the United States.
41. The word "They" in line 9 refers to  
(A) the tenants                      (B) their leases                      (C) places                      (D) rent controls.
42. Which of the following was NOT a reason for the introduction of rent controls in Santa Monica, California?  
(A) Rapid population growth                      (B) Inflation  
(C) Economic conditions during wartime                      (D) Record-high housing prices
43. The phrase "roll back" in lines 11-12 is closest in meaning to  
(A) credit                      (B) measure                      (C) vary                      (D) reduce
44. The word "stimulating" in line 15 is closest in meaning to  
(A) experimenting with                      (B) identifying  
(C) estimating                      (D) encouraging
45. It can be inferred that the purpose of rent control is to  
(A) protect tenants                      (B) promote construction  
(C) increase vacancy rates                      (D) decrease sales of rental units
46. The word "depressed" in line 19 is closest in meaning to  
(A) saddened                      (B) created                      (C) lowered                      (D) defeated
47. The information in the last paragraph supports which of the following statements?  
(A) San Francisco has eliminated its rent control laws.  
(B) Rent control leads to a reduction in the construction of housing units  
(C) Luxury apartments are rarely built when there is rent control  
(D) There is a growing need for government-subsidized housing.
48. According to the passage, which of the following cities does NOT currently have rent controls?  
(A) Santa Monica                      (B) Dallas                      (C) San Francisco                      (D) New York City
49. The word "stringent" in line 23 is closest in meaning to  
(A) straightforward                      (B) strict                      (C) expanded                      (D) efficient
50. According to the passage, which of the following is NOT exempt from rent control?  
(A) Luxury apartments                      (B) Commercial development  
(C) Moderately priced apartments                      (D) Office space



# PRACTICE TEST 28

## May 1997

### Question 1-8

With Robert Laurent and William Zorach, direct carving enters into the story of modern sculpture in the United States. Direct carving - in which the sculptors themselves carve stone or wood with mallet and chisel - must be recognized as something more than just a technique. Implicit in it is an aesthetic principle as well  
*Line* (5) that the medium has certain qualities of beauty and expressiveness with which sculptors must bring their own aesthetic sensibilities into harmony. For example, sometimes the shape or veining in a piece of stone or wood suggests, perhaps even dictates, not only the ultimate form, but even the subject matter.

(10) The technique of direct carving was a break with the nineteenth-century tradition in which the making of a clay model was considered the creative act and the work was then turned over to studio assistants to be cast in plaster or bronze or carved in marble. Neoclassical sculptors seldom held a mallet or chisel in their own hands, readily conceding that the assistants they employed were far better than they were at carving the finished marble.

(15) With the turn-of-the-century Crafts movement and the discovery of nontraditional sources of inspiration, such as wooden African figures and masks, there arose a new urge for hands-on, personal execution of art and an interaction with the medium. Even as early as the 1880's and 1890's, nonconformist European artists were attempting direct carving. By the second decade of the twentieth century, Americans - Laurent  
(20) and Zorach most notably - had adopted it as their primary means of working.

Born in France, Robert Laurent(1890-1970) was a prodigy who received his education in the United States. In 1905 he was sent to Paris as an apprentice to an art dealer, and in the years that followed he witnessed the birth of Cubism, discovered primitive art, and learned the techniques of woodcarving from a frame maker.

(25) Back in New York City by 1910, Laurent began carving pieces such as *The Priestess*, which reveals his fascination with African, pre-Columbian, and South Pacific art. Taking a walnut plank, the sculptor carved the expressive, stylized design. It is one of the earliest examples of direct carving in American sculpture. The plank's form dictated the rigidly frontal view and the low relief. Even its irregular shape must  
(30) have appealed to Laurent as a break with a long-standing tradition that required a sculptor to work within a perfect rectangle or square.

1. The word "medium" in line 5 could be used to refer to

- (A) stone or wood (B) mallet and chisel  
(C) technique (D) principle

2. What is one of the fundamental principles of direct carving?

- (A) A sculptor must work with talented assistants.  
(B) The subject of a sculpture should be derived from classical stories.  
(C) The material is an important element in a sculpture.  
(D) Designing a sculpture is a more creative activity than carving it.

3. The word "dictates" in line 8 is closest in meaning to

- (A) reads aloud (B) determines (C) includes (D) records

4. How does direct carving differ from the nineteenth-century tradition of sculpture?  
(A) Sculptors are personally involved in the carving of a piece.  
(B) Sculptors find their inspiration in neoclassical sources.  
(C) Sculptors have replaced the mallet and chisel with other tools.  
(D) Sculptors receive more formal training.
5. The word "witnessed" in line 23 is closest in meaning to  
(A) influenced                      (B) studied                      (C) validated                      (D) observed
6. Where did Robert Laurent learn to carve?  
(A) New York    (B) Africa  
(C) The South Pacific    (D) Paris.
7. The phrase "a break with" in line 30 is closest in meaning to  
(A) a destruction of    (B) a departure from  
(C) a collapse of    (D) a solution to
8. The piece titled *The Priestess* has all of the following characteristics EXCEPT:  
(A) The design is stylized.    (B) It is made of marble.  
(C) The carving is not deep.    (D) It depicts the front of a person.

### Questions 9-19

Birds that feed in flocks commonly retire together into roosts. The reasons for roosting communally are not always obvious, but there are some likely benefits. In winter especially, it is important for birds to keep warm at night and conserve precious food reserves. One way to do this is to find a sheltered roost. Solitary roosters shelter in dense vegetation or enter a cavity - horned larks dig holes in the ground and ptarmigan burrow into snow banks - but the effect of sheltering is magnified by several birds huddling together in the roosts, as wrens, swifts, brown creepers, bluebirds, and anis do. Body contact reduces the surface area exposed to the cold air, so the birds keep each other warm. Two kinglets huddling together were found to reduce their heat losses by a quarter and three together saved a third of their heat.

The second possible benefit of communal roosts is that they act as "information centers." During the day, parties of birds will have spread out to forage over a very large area. When they return in the evening some will have fed well, but others may have found little to eat. Some investigators have observed that when the birds set out again next morning, those birds that did not feed well on the previous day appear to follow those that did. The behavior of common and lesser kestrels may illustrate different feeding behaviors of similar birds with different roosting habits. The common kestrel hunts vertebrate animals in a small, familiar hunting ground, whereas the very similar lesser kestrel feeds on insects over a large area. The common kestrel roosts and hunts alone, but the lesser kestrel roosts and hunts in flocks, possibly so one bird can learn from others where to find insect swarms.

Finally, there is safety in numbers at communal roosts since there will always be a few birds awake at any given moment to give the alarm. But this increased protection is partially counteracted by the fact that mass roosts attract predators and are especially vulnerable if they are on the ground. Even those in trees can be attacked by birds of prey. The birds on the edge are at greatest risk since predators find it easier to catch small birds perching at the margins of the roost.

9. What does the passage mainly discuss?  
(A) How birds find and store food. (B) How birds maintain body heat in the winter.  
(C) Why birds need to establish territory. (D) Why some species of birds nest together.
10. The word "conserve" in line 3 is closest in meaning to  
(A) retain (B) watch (C) locate (D) share
11. Ptarmigan keep warm in the winter by  
(A) huddling together on the ground with other birds.  
(B) Building nests in trees.  
(C) Burrowing into dense patches of vegetation  
(D) Digging tunnels into the snow.
12. The word "magnified" in line 6 is closest in meaning to  
(A) caused (B) modified (C) intensified (D) combined
13. The author mentions kinglets in line 9 as an example of birds that  
(A) protect themselves by nesting in holes. (B) Nest with other species of birds  
(C) Nest together for warmth (D) Usually feed and nest in pairs.
14. The word "forage" in line 12 is closest in meaning to  
(A) fly (B) assemble (C) feed (D) rest
15. Which of the following statements about lesser and common kestrels is true?  
(A) The lesser kestrel and the common kestrel have similar diets.  
(B) The lesser kestrel feeds sociably but the common kestrel does not.  
(C) The common kestrel nests in larger flocks than does the lesser kestrel.  
(D) The common kestrel nests in trees, the lesser kestrel nests on the ground.
16. The word "counteracted" in line 24 is closest in meaning to  
(A) suggested (B) negated (C) measured (D) shielded
17. Which of the following is NOT mentioned in the passage as an advantage derived by birds that huddle together while sleeping?  
(A) Some members of the flock warm others of impending dangers.  
(B) Staying together provides a greater amount of heat for the whole flock.  
(C) Some birds in the flock function as information centers for others who are looking for food.  
(D) Several members of the flock care for the young.
18. Which of the following is a disadvantage of communal roosts that is mentioned in the passage?  
(A) Diseases easily spread among the birds.  
(B) Groups are more attractive to predators than individual birds.  
(C) Food supplies are quickly depleted  
(D) Some birds in the group will attack the others.
19. The word "they" in line 25 refers to  
(A) a few birds (B) mass roosts (C) predators (D) trees

**Question 20-30**

Before the mid-nineteenth century, people in the United States ate most foods only in season. Drying, smoking, and salting could preserve meat for a short time, but the availability of fresh meat, like that of fresh milk, was very limited; there was no way to prevent spoilage. But in 1810 a French inventor named Nicolas Appert developed the cooking-and-sealing process of canning. And in the 1850's an American named Gail Borden developed a means of condensing and preserving milk. Canned goods and condensed milk became more common during the 1860's, but supplies remained low because cans had to be made by hand. By 1880, however, inventors had fashioned stamping and soldering machines that mass-produced cans from tinfoil. Suddenly all kinds of food could be preserved and bought at all times of the year.

Other trends and inventions had also helped make it possible for Americans to vary their daily diets. Growing urban populations created demand that encouraged fruit and vegetable farmers to raise more produce. Railroad refrigerator cars enabled growers and meat packers to ship perishables great distances and to preserve them for longer periods. Thus, by the 1890's, northern city dwellers could enjoy southern and western strawberries, grapes, and tomatoes, previously available for a month at most, for up to six months of the year. In addition, increased use of iceboxes enabled families to store perishables. An easy means of producing ice commercially had been invented in the 1870's, and by 1900 the nation had more than two thousand commercial ice plants, most of which made home deliveries. The icebox became a fixture in most homes and remained so until the mechanized refrigerator replaced it in the 1920's and 1930's.

Almost everyone now had a more diversified diet. Some people continued to eat mainly foods that were heavy in starches or carbohydrates, and not everyone could afford meat. Nevertheless, many families could take advantage of previously unavailable fruits, vegetables, and dairy products to achieve more varied fare.

20. What does the passage mainly discuss?

- (A) Causes of food spoilage.
- (B) Commercial production of ice
- (C) Inventions that led to changes in the American diet.
- (D) Population movements in the nineteenth century.

21. The phrase "in season" in line 2 refers to

- (A) a kind of weather
- (B) a particular time of year
- (C) an official schedule
- (D) a method of flavoring food.

22. The word "prevent" in line 4 is closest in meaning to

- (A) estimate
- (B) avoid
- (C) correct
- (D) confine

23. During the 1860's, canned food products were

- (A) unavailable in rural areas
- (B) shipped in refrigerator cars
- (C) available in limited quantities.
- (D) A staple part of the American diet.

24. It can be inferred that railroad refrigerator cars came into use

- (A) before 1860
- (B) before 1890
- (C) after 1900
- (D) after 1920

25. The word "them" in line 14 refers to

- (A) refrigerator cars      (B) perishables      (C) growers      (D) distances
26. The word "fixture" in line 20 is closest in meaning to  
 (A) luxury item      (B) substance  
 (C) commonplace object      (D) mechanical device
27. The author implies that in the 1920's and 1930's home deliveries of ice  
 (A) decreased in number      (B) were on an irregular schedule  
 (C) increased in cost      (D) occurred only in the summer.
28. The word "Nevertheless" in line 24 is closest in meaning to  
 (A) therefore      (B) because      (C) occasionally      (D) however
29. Which of the following types of food preservation was NOT mentioned in the passage?  
 (A) Drying      (B) Canning      (C) Cold storage      (D) Chemical additives.
30. Which of the following statements is supported by the passage?  
 (A) Tin cans and iceboxes helped to make many foods more widely available.  
 (B) Commercial ice factories were developed by railroad owners  
 (C) Most farmers in the United States raised only fruits and vegetables.  
 (D) People who lived in cities demanded home delivery of foods.

### Question 31-38

The ability of falling cats to right themselves in midair and land on their feet has been a source of wonder for ages. Biologists long regarded it as an example of adaptation by natural selection, but for physicists it bordered on the miraculous

*Line* Newton's laws of motion assume that the total amount of spin of a body cannot change  
 (5) unless an external torque speeds it up or slows it down. If a cat has no spin when it is released and experiences no external torque, it ought not to be able to twist around as it falls.

In the speed of its execution, the righting of a tumbling cat resembles a magician's trick. The gyrations of the cat in midair are too fast for the human eye to follow, so the  
 (10) process is obscured. Either the eye must be speeded up, or the cat's fall slowed down for the phenomenon to be observed. A century ago the former was accomplished by means of high-speed photography using equipment now available in any pharmacy. But in the nineteenth century the capture on film of a falling cat constituted a scientific experiment.

(15) The experiment was described in a paper presented to the Paris Academy in 1894. Two sequences of twenty photographs each, one from the side and one from behind, show a white cat in the act of righting itself. Grainy and quaint though they are, the photos show that the cat was dropped upside down, with no initial spin, and still landed on its feet. Careful analysis of the photos reveals the secret: As the cat rotates as the front  
 (20) of its body clockwise, the rear and tail twist counterclockwise, so that the total spin remains zero, in perfect accord with Newton's laws. Halfway down, the cat pulls in its legs before reversing its twist and then extends them again, with the desired end result. The explanation was that while no body can acquire spin without torque, a flexible one can readily change its orientation, or phase. Cats know this instinctively, but scientists  
 (25) could not be sure how it happened until they increased the speed of their perceptions a thousandfold.

31. What does the passage mainly discuss?  
(A) The explanation of an interesting phenomenon  
(B) Miracles in modern science  
(C) Procedures in scientific investigation  
(D) The differences between biology and physics.
32. The word "process" in line 10 refers to  
(A) the righting of a tumbling cat  
(B) the cat's fall slowed down  
(C) high-speed photography  
(D) a scientific experiment
33. Why are the photographs mentioned in line 16 referred to as an "experiment"?  
(A) The photographs were not very clear.  
(B) The purpose of the photographs was to explain the process.  
(C) The photographer used inferior equipment  
(D) The photographer thought the cat might be injured.
34. Which of the following can be inferred about high-speed photography in the late 1800's?  
(A) It was a relatively new technology.  
(B) The necessary equipment was easy to obtain.  
(C) The resulting photographs are difficult to interpret.  
(D) It was not fast enough to provide new information.
35. The word "rotates" in line 19 is closest in meaning to  
(A) drops  
(B) turns  
(C) controls  
(D) touches
36. According to the passage, a cat is able to right itself in midair because it is  
(A) frightened  
(B) small  
(C) intelligent  
(D) flexible
37. The word "readily" in line 24 is closest in meaning to  
(A) only  
(B) easily  
(C) slowly  
(D) certainly
38. How did scientists increase "the speed of their perceptions a thousandfold" (lines 25-26)?  
(A) By analyzing photographs  
(B) By observing a white cat in a dark room  
(C) By dropping a cat from a greater height.  
(D) By studying Newton's laws of motion.

### Question 39-50

The changing profile of a city in the United States is apparent in the shifting definitions used by the United States Bureau of the Census. In 1870 the census officially distinguished the nation's "urban" from its "rural" population for the first

*Line* time. "Urban population" was defined as persons living in towns of 8,000 inhabitants  
(5) or more. But after 1900 it meant persons living in incorporated places having 2,500 or more inhabitants.

Then, in 1950 the Census Bureau radically changed its definition of "urban" to take account of the new vagueness of city boundaries. In addition to persons living in incorporated units of 2,500 or more, the census now included those who lived in  
(10) unincorporated units of that size, and also all persons living in the densely settled urban fringe, including both incorporated and unincorporated areas located around cities of 50,000 inhabitants or more. Each such unit, conceived as an integrated economic and social unit with a large population nucleus, was named a Standard Metropolitan Statistical Area (SMSA).

(15) Each SMSA would contain at least (a) one central city with 50,000 inhabitants or

- more or (b) two cities having shared boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000, the smaller of which must have a population of at least 15,000. Such an area included the county in which the central city is located, and adjacent counties that are found to
- (20) be metropolitan in character and economically and socially integrated with the country of the central city. By 1970, about two-thirds of the population of the United States was living in these urbanized areas, and of that figure more than half were living outside the central cities.

- (25) While the Census Bureau and the United States government used the term SMSA (by 1969 there were 233 of them), social scientists were also using new terms to describe the elusive, vaguely defined areas reaching out from what used to be simple "town" and "cities". A host of terms came into use: "metropolitan regions", "polynucleated population groups", "conurbations", "metropolitan clusters", "megalopolises", and so on.

39. What does the passage mainly discuss?  
 (A) How cities in the United States began and developed  
 (B) Solutions to overcrowding in cities  
 (C) The changing definition of an urban area  
 (D) How the United States Census Bureau conducts a census
40. According to the passage, the population of the United States was first classified as rural or urban in  
 (A) 1870 (B) 1900 (C) 1950 (D) 1970
41. The word "distinguished" in line 3 is closest in meaning to  
 (A) differentiated (B) removed (C) honored (D) protected
42. Prior to 1900, how many inhabitants would a town have to have before being defined as urban?  
 (A) 2,500 (B) 8,000 (C) 15,000 (D) 50,000
43. According to the passage, why did the Census Bureau revise the definition of urban in 1950?  
 (A) City borders had become less distinct.  
 (B) Cities had undergone radical social change  
 (C) Elected officials could not agree on an acceptable definition.  
 (D) New businesses had relocated to larger cities.
44. The word "those" in line 9 refers to  
 (A) boundaries (B) persons (C) units (D) areas
45. The word "constituting" in line 16 is closest in meaning to  
 (A) located near (B) determined by (C) calling for (D) marking up
46. The word "which" in line 18 refers to a smaller  
 (A) population (B) city (C) character (D) figure
47. Which of the following is NOT true of an SMSA?  
 (A) It has a population of at least 50,000 (B) It can include a city's outlying regions  
 (C) It can include unincorporated regions (D) It consists of at least two cities.
48. By 1970, what proportion of the population in the United States did NOT live in an SMSA?  
 (A) 3/4 (B) 2/3 (C) 1/2 (D) 1/3
49. The Census Bureau first used the term "SMSA" in  
 (A) 1900 (B) 1950 (C) 1969 (D) 1970
50. Where in the passage does the author mention names used by social scientists for an urban area?

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(A) Lines 4-5

(B) Lines 7-8

(C) Lines 21-23

(D) Lines 27-29



# PRACTICE TEST 29

## August 1997

### Question 1-9

In the 1500's when the Spanish moved into what later was to become the southwestern United States, they encountered the ancestors of the modern-day Pueblo, Hopi, and Zuni peoples. These ancestors, known variously as the Basket Makers, the Anasazi, or the Ancient Ones, had lived in the area for at least 2,000 years. They were an advanced agricultural people who used irrigation to help grow their crops.

The Anasazi lived in houses constructed of adobe and wood. Anasazi houses were originally built in pits and were entered from the roof. But around the year 700 A.D., the Anasazi began to build their homes above ground and join them together into rambling multistoried complexes, which the Spanish called pueblos or villages. Separate subterranean rooms in these pueblos --- known as kivas or chapels --- were set aside for religious ceremonials. Each kiva had a fire pit and a hole that was believed to lead to the underworld. The largest pueblos had five stories and more than 800 rooms.

The Anasazi family was matrilinear, that is, descent was traced through the female. The sacred objects of the family were under the control of the oldest female, but the ritual ceremonies were conducted by her brother or son. Women owned the rooms in the pueblo and the crops, once they were harvested. While still growing, crops belonged to the man who, in contrast to most other Native American groups, planted them. The women made baskets and pottery, the men wove textile and crafted turquoise jewelry.

Each village had two chiefs. The village chief dealt with land disputes and religious affairs. The war chief led the men in fighting during occasional conflicts that broke out with neighboring villages and directed the men in community building projects. The cohesive political and social organization of the Anasazi made it almost impossible for other groups to conquer them.

- The Anasazi people were considered "agriculturally advanced" because of the way they
  - stored their crops
  - watered their crops.
  - fertilized their fields.
  - planted their fields.
- The word "pits" in line 7 is closest in meaning to
  - stages
  - scars
  - seeds
  - holes.
- The word "stories" in line 12 is closest in meaning to
  - articles
  - tales
  - levels
  - rumors
- Who would have been most likely to control the sacred objects of an Anasazi family?
  - A twenty-year-old man
  - A twenty-year-old woman
  - A forty-year-old man
  - A forty-year-old woman
- The word "they" in line 16 refers to
  - women
  - crops
  - rooms
  - pueblos
- The word "disputes" in line 20 is closest in meaning to
  - discussions
  - arguments
  - developments
  - purchases
- Which of the following activities was NOT done by Anasazi men?
  - Making baskets
  - Planting crops

- (C) Building homes (D) Crafting jewelry.
8. According to the passage, what made it almost impossible for other groups to conquer the Anasazi?  
(A) The political and social organization of the Anasazi  
(B) The military tactics employed by the Anasazi  
(C) The Anasazi's agricultural technology.  
(D) The natural barriers surrounding Anasazi willages.
9. The passage supports which of the following generalizations?  
(A) The presence of the Spanish threatened Anasazi society.  
(B) The Anasazi benefited from trading relations with the Spanish.  
(C) Anasazi society exhibited a well-defined division of labor.  
(D) Conflicts between neighboring Anasazi villages were easily resolved.

### Question 10-19

Barbed wire, first patented in the United States in 1867, played an important part in the development of American farming, as it enabled the settlers to make effective fencing to enclose their land and keep cattle away from their crops. This had a  
*Line* considerable effect on cattle ranching, since the herds no longer had unrestricted use of  
(5) the plans for grazing, and the fencing led to conflict between the farmers and the cattle ranchers.

Before barbed wire came into general use, fencing was often made from serrated wire, which was unsatisfactory because it broke easily when under strain, and could snap in cold weather due to contraction. The first practical machine for producing  
(10) barbed wire was invented in 1874 by an Illinois farmer, and between then and the end of the century about 400 types of barbed wire were devised, of which only about a dozen were ever put to practical use.

Modern barbed wire is made from mild steel high-tensile steel, or aluminum. Mild steel and aluminum barbed wire have two strands twisted together to form a cable  
(15) which is stronger than single-strand wire and less affected by temperature changes. Single-strand wire, round or oval, is made from high-tensile steel with the barbs crimped or welded on . The steel wires used are galvanized - coated with zinc to make them rustproof. The two wires that make up the line wire or cable are fed separately into a machine at one end. They leave it at the other end twisted-together and barbed.  
(20) The wire to make the barbs is fed into the machine from the sides and cut to length by knives that cut diagonally through the wire to produce a sharp point. This process continues automatically, and the finished barbed wire is wound onto reels, usually made of wire in lengths of 400 meters or in weights of up to 50 kilograms.

A variation of barbed wire is also used for military purposes. It is formed into long  
(25) coils or entanglements called concertina wire.

10. What is the main topic of the passage?  
(A) Cattle ranching in the United States. (B) A type of fencing  
(C) Industrial uses of wire (D) A controversy over land use.
11. The word "unrestricted" in line 4 is closest in meaning to  
(A) unsatisfactory (B) difficult  
(C) considerable (D) unlimited
12. The word "snap" in line 9 could best be replaced by which of the following?  
(A) freeze (B) click (C) loosen (D) break

13. What is the benefit of using two-stranded barbed wire?  
 (A) Improved rust-resistance (B) Increased strength  
 (C) More rapid attachment of barbs (D) Easier installation.
14. According to the author, the steel wires used to make barbed wire are specially processed to  
 (A) protect them against rust (B) make them more flexible  
 (C) prevent contraction in cold weather (D) straighten them.
15. The word "fed" in line 20 is closest in meaning to  
 (A) put (B) eaten (C) bitten (D) nourished
16. The knives referred to in line 21 are used to  
 (A) separate double-stranded wire (B) prevent the reel from advancing too rapidly  
 (C) twist the wire (D) cut the wire that becomes barbs
17. What is the author's purpose in the third paragraph?  
 (A) To explain the importance of the wire. (B) To outline the difficulty of making the wire  
 (C) To describe how the wire is made (D) To suggest several different uses of the wire.
18. According to the passage, concertina wire is used for  
 (A) livestock management (B) international communications  
 (C) prison enclosures (D) military purposes
19. ???

### Question 20-28

Under certain circumstance the human body must cope with gases at greater-than normal atmospheric pressure. For example, gas pressures increase rapidly during a dive made with scuba gear because the breathing equipment allows divers to stay  
*Line* underwater longer and dive deeper. The pressure exerted on the human body increases  
 (5) by 1 atmosphere for every 10 meters of depth in seawater, so that at 30 meters in seawater a diver is exposed to a pressure of about 4 atmospheres. The pressure of the gases being breathed must equal the external pressure applied to the body; otherwise breathing is very difficult. Therefore all of the gases in the air breathed by a scuba diver at 40 meters are present at five times their usual pressure. Nitrogen which  
 (10) composes 80 percent of the air we breathe usually causes a balmy feeling of well-being at this pressure. At a depth of 5 atmospheres nitrogen causes symptoms resembling alcohol intoxication known as nitrogen narcosis. Nitrogen narcosis apparently results from a direct effect on the brain of the large amounts of nitrogen dissolved in the blood. Deep dives are less dangerous if helium is substituted for  
 (15) nitrogen, because under these pressures helium does not exert a similar narcotic effect.

As a scuba diver descends, the pressure of nitrogen in the lungs increases. Nitrogen then diffuses from the lungs to the blood and from the blood to body tissues. The reverse occurs when the diver surfaces; the nitrogen pressure in the lungs falls and the nitrogen diffuses from the tissues into the blood and from the blood into the lungs. If  
 (20) the return to the surface is too rapid, nitrogen in the tissues and blood cannot diffuse out rapidly enough and nitrogen bubbles are formed. They can cause severe pains, particularly around the joints.

Another complication may result if the breath is held during ascent. During ascent from a depth of 10 meters, the volume of air in the lungs will double because the air  
 (25) pressure at the surface is only half of what it was at 10 meters. This change in volume

may cause the lungs to distend and even rupture. This condition is called air embolism. To avoid this event, a diver must ascent slowly, never at a rate exceeding the rise of the exhaled air bubbles, and must exhale during ascent.

20. What does the passage mainly discuss?  
(A) The equipment divers use  
(B) The effects of pressure on gases in the human body  
(C) How to prepare for a deep dive  
(D) The symptoms of nitrogen bubbles in the bloodstream.
21. The word "exposed to" in line 6 are closest in meaning to  
(A) leaving behind      (B) prepared for      (C) propelled by      (D) subjected to
22. The word "exert" in line 15 is closest in meaning to  
(A) cause      (B) permit      (C) need      (D) change
23. The word "diffuses" in line 19 is closest in meaning to  
(A) yields      (B) starts      (C) surfaces      (D) travels
24. What happens to nitrogen in body tissues if a diver ascends too quickly.  
(A) It forms bubbles      (B) It goes directly to the brain  
(C) It is reabsorbed by the lungs      (D) It has a narcotic effect
25. The word "They" in line 21 refers to  
(A) joints      (B) pains      (C) bubbles      (D) tissues
26. The word "rupture" in line 26 is closest in meaning to  
(A) hurt      (B) shrink      (C) burst      (D) stop
27. It can be inferred from the passage that which of the following presents the greatest danger to a diver?  
(A) Pressurized helium      (B) Nitrogen diffusion  
(C) Nitrogen bubbles      (D) An air embolism
28. What should a diver do when ascending?  
(A) Rise slowly      (B) Breathe faster      (C) Relax completely      (D) Breathe helium

**Question 29-38**

Each advance in microscopic technique has provided scientists with new perspectives on the function of living organisms and the nature of matter itself. The invention of the visible-light microscope late in the sixteenth century introduced a previously unknown  
*Line* realm of single-celled plants and animals. In the twentieth century, electron microscopes  
(5) have provided direct views of viruses and minuscule surface structures. Now another type of microscope, one that utilize x-rays rather than light or electrons, offers a different way of examining tiny details, it should extend human perception still farther into the natural world.

The dream of building an x-ray microscope dates to 1895, its development, however,  
(10) was virtually halted in the 1940's because the development of the electron microscope was progressing rapidly. During the 1940's electron microscopes routinely achieved resolution better than that possible with a visible-light microscope, while the performance of x-ray microscopes resisted improvement. In recent years, however, interest in x-ray microscopes has revived, largely because of advances such as the  
(15) development of new sources of x-ray illumination. As a result, the brightness available today is millions of times that of x-ray tubes, which, for most of the century, were the only available sources of soft x-rays.

- The new x-ray microscopes considerably improve on the resolution provided by optical microscopes. They can also be used to map the distribution of certain chemical elements.
- (20) Some can form pictures in extremely short times, others hold the promise of special capabilities such as three dimensional imaging. Unlike conventional electron microscopy, x-ray microscopy enables specimens to be kept in air and in water, which means that biological samples can be studied under conditions similar to their natural state. The illumination used, so-called soft x-rays in the wavelength range of twenty to forty
- (25) angstroms (an angstrom is one ten-billionth of a meter), is also sufficiently penetrating to image intact biological cells in many cases. Because of the wavelength of the x-rays used, soft x-ray microscopes will never match the highest resolution possible with electron microscopes. Rather, their special properties will make possible investigations that will complement those performed with light- and electron-based instruments.

29. What does the passage mainly discuss?  
 (A) The detail seen through a microscope (B) Sources of illumination for microscopes  
 (C) A new kind of microscope (D) Outdated microscopic technique
30. According to the passage, the invention of the visible-light microscope allowed scientists to  
 (A) see viruses directly  
 (B) develop the electron microscope later on  
 (C) understand more about the distribution of the chemical elements  
 (D) discover single celled plants and animals they had never seen before.
31. The word "minuscule" in line 5 is closest in meaning to  
 (A) circular (B) dangerous (C) complex (D) tiny
32. The word "it" in line 7 refers to  
 (A) a type of microscope (B) human perception  
 (C) the natural world (D) light
33. Why does the author mention the visible light microscope in the first paragraph?  
 (A) To begin a discussion of sixteenth century discoveries.  
 (B) To put the x-ray microscope in historical perspective  
 (C) To show how limited its uses are  
 (D) To explain how it functioned
34. Why did it take so long to develop the x-ray microscope?  
 (A) Funds for research were insufficient.  
 (B) The source of illumination was not bright enough until recently.  
 (C) Materials used to manufacture x-ray tubes were difficult to obtain  
 (D) X-ray microscopes were too complicated to operate.
35. The word "enables" in line 32 is closest in meaning to  
 (A) constitutes (B) specifies (C) expands (D) allows
36. The word "Rather" in line 28 is closest in meaning to  
 (A) significantly (B) preferably (C) somewhat (D) instead
37. The word "those" in line 29 refers to  
 (A) properties (B) investigations (C) microscopes (D) x-rays
38. Based on the information in the passage, what can be inferred about x-ray microscopes in the future?  
 (A) They will probably replace electron microscopes altogether.  
 (B) They will eventually be much cheaper to produce than they are now.  
 (C) They will provide information not available from other kinds of microscopes.

(D) They will eventually change the illumination range that they now use.

**Question 39-50**

Perhaps the most striking quality of satiric literature is its freshness, its originality of perspective. Satire rarely offers original ideas. Instead it presents the familiar in a new form. Satirists do not offer the world new philosophies. What they do is look at familiar conditions from a perspective that makes these conditions seem foolish, harmful or affected. Satire jars us out of complacency into a pleasantly shocked realization that many of the values we unquestioningly accept are false. *Don Quixote* makes chivalry seem absurd, *Brave New World* ridicules the pretensions of science, *A Modest proposal* dramatizes starvation by advocating cannibalism. None of these ideas is original. Chivalry was suspect before Cervantes, humanists objected to the claims of pure science before Aldous Huxley and people were aware of famine before Swift. It was not the originality of the idea that made these satires popular. It was the manner of expression the satiric method that made them interesting and entertaining. Satires are read because they are aesthetically satisfying works of art, not because they are morally wholesome or ethically instructive. They are stimulating and refreshing because with commonsense briskness they brush away illusions and secondhand opinions. With spontaneous irreverence, satire rearranges perspectives, scrambles familiar objects into incongruous juxtaposition and speaks in a personal idiom instead of abstract platitude.

Satire exists because there is need for it. It has lived because readers appreciate a refreshing stimulus, an irreverent reminder that they lived in a world of platitudinous thinking, cheap moralizing, and foolish philosophy. Satire serves to prod people into an awareness of truth though rarely to any action on behalf of truth. Satire tends to remind people that much of what they see, hear, and read in popular media is sanctimonious, sentimental, and only partially true. Life resembles in only a slight degree the popular image of it. Soldiers rarely hold the ideals that movies attribute to them, nor do ordinary citizens devote their lives to unselfish service of humanity. Intelligent people know these things but tend to forget them when they do not hear them expressed.

39. What does the passage mainly discuss?  
(A) Difficulties of writing satiric literature.  
(B) Popular topics of satire  
(C) New philosophies emerging from satiric literature  
(D) Reasons for the popularity of satire.
40. The word "realization" in line 6 is closest in meaning to  
(A) certainly                      (B) awareness                      (C) surprise                      (D) confusion
41. Why does the author mention *Don Quirote*, *Brave New World* and *A Modest Proposal* in lines 6-8?  
(A) They are famous examples of satiric literature  
(B) They present commonsense solutions to problems.  
(C) They are appropriate for readers of all ages.  
(D) They are books with similar stories.
42. The word "aesthetically" in line 13 is closest in meaning to  
(A) artistically                      (B) exceptionally                      (C) realistically                      (D) dependably

43. Which of the following can be found in satire literature?  
 (A) Newly emerging philosophies  
 (B) Odd combinations of objects and ideas  
 (C) Abstract discussion of moral and ethnics  
 (D) Wholesome characters who are unselfish.
44. According to the passage, there is a need for satire because people need to be  
 (A) informed about new scientific developments  
 (B) exposed to original philosophies when they are formulated  
 (C) reminded that popular ideas are often inaccurate  
 (D) told how they can be of service to their communities.
45. The word "refreshing" in line 19 is closest in meaning to  
 (A) popular (B) ridiculous (C) meaningful (D) unusual
46. The word "they" in line 22 refers to  
 (A) people (B) media (C) ideals (D) movies
47. The word "devote" in line 25 is closest in meaning to  
 (A) distinguish (B) feel affection (C) prefer (D) dedicate
48. As a result of reading satiric literature, readers will be most likely to  
 (A) teach themselves to write fiction  
 (B) accept conventional points of view  
 (C) become better informed about current affairs  
 (D) reexamine their opinions and values
49. The various purposes of satire include all of the following EXCEPT  
 (A) introducing readers to unfamiliar situations  
 (B) brushing away illusions  
 (C) reminding readers of the truth  
 (D) exposing false values.
50. Why does the author mention "service of humanity" in line 25?  
 (A) People need to be reminded to take action  
 (B) Readers appreciate knowing about it  
 (C) It is an ideal that is rarely achieved.  
 (D) Popular media often distort such stories.

# ANSWER KEY

## PRACTICE TEST 15

DDCDA CADAB BBDBC CCDAB CBBAA BCBAB DBDBD AAADB DCBAD CCADD

## PRACTICE TEST 16

CBDAD BBABB DDCDC BCACA CBDCA DDBCD AACBC ABADB CCBAA BCBDB

## PRACTICE TEST 17

ACDCA BCDBA BCACD DCBAC DABCC CBCBB DDCCA BADCB DCCAC BBCAD

## PRACTICE TEST 18

ADCBB CBDAD CAAAC ACCAD BBDBA ACADC DACAD ADCAB DBBCB BCAAD

## PRACTICE TEST 19

BBDBD CACAD CABCD ABACD BABCB BCADA BAADC ADBCD BBABC BBCAD

## PRACTICE TEST 20

DACCB DBBAD DABDC CDCBD ABCAB BBDDA BCACA BCABC DBABC ADADD

## PRACTICE TEST 21

DBDBC ACABD DBBCA DCDCD AADDB CDACB ABADC CBACB DCACB DBABC

## PRACTICE TEST 22

BCCAB CCABB AADCC ACBDA ACDBB BCABC BDCCA DBBCA BDADC ADBAA

## PRACTICE TEST 23

ACBDC CBBDD ACACA CBDBD BDDCC DACAA DCBBD ABDAA DACCB BDDBA

## PRACTICE TEST 24

BDDCC ABABD DCDCB CABAB DAAAC BBCCA DBDCD CBBBA ACBBC DCDAD

## PRACTICE TEST 25

DCACD ADCBB CBCAC ADDCD BBDDA BAADC BCAAD DCDBA DABCD ACBDD

## PRACTICE TEST 26

AACCD CABDC DACBA ACCBC DBBDA BDDAC BDBAD ACBDC BDDAB CCACD

## PRACTICE TEST 27

ABBDB BACBD DAACC CACCB DCAAB ABDBB CCAA DBDDDB DCDDDB CBBBC

## PRACTICE TEST 28

ACBAD DBBDA DCCCB BDBBC BBCBB CADD AABAB DBACA ABABD BBDBD

## PRACTICE TEST 29

CDCDB BAACB DDBAA DCDAB DADAC CDACD DABBD DBCDB AABCD ADDAA



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# PRACTICE TEST 30

## October 1997

### Question 1-7

Hotels were among the earliest facilities that bound the United States together. They were both creatures and creators of communities, as well as symptoms of the frenetic quest for community. Even in the first part of the nineteenth century, Americans were already forming the habit of gathering from all corners of the nation for both public and private, business and pleasure purposes. Conventions were the new occasions, and hotels were distinctively American facilities making conventions possible. The first national convention of a major party to choose a candidate for President (that of the National Republican party, which met on December 12, 1831, and nominated Henry Clay for President) was held in Baltimore, at a hotel that was then reputed to be the best in the country. The presence in Baltimore of Barnum's City Hotel, a six-story building with two hundred apartments, helps explain why many other early national political conventions were held there.

In the longer run, too. American hotels made other national conventions not only possible but pleasant and convivial. The growing custom of regularly assembling from afar the representatives of all kinds of groups - not only for political conventions, but also for commercial, professional, learned, and avocational ones - in turn supported the multiplying hotels. By mid-twentieth century, conventions accounted for over a third of the yearly room occupancy of all hotels in the nation, about eighteen thousand different conventions were held annually with a total attendance of about ten million persons.

Nineteenth-century American hotelkeepers, who were no longer the genial, deferential "hosts" of the eighteenth-century European inn, became leading citizens. Holding a large stake in the community, they exercised power to make it prosper. As owners or managers of the local "palace of the public", they were makers and shapers of a principal community attraction. Travelers from abroad were mildly shocked by this high social position.

1. The word "bound" in line 1 is closest in meaning to  
(A) led                                      (B) protected                                      (C) tied                                      (D) strengthened
2. The National Republican party is mentioned in line 8 as an example of a group  
(A) from Baltimore                                      (B) of learned people  
(C) owning a hotel                                      (D) holding a convention
3. The word "assembling" in line 14 is closest in meaning to  
(A) announcing                                      (B) motivating                                      (C) gathering                                      (D) contracting
4. The word "ones" in line 16 refers to  
(A) hotels                                      (B) conventions                                      (C) kinds                                      (D) representatives
5. The word "it" in line 23 refers to  
(A) European inn                                      (B) host                                      (C) community                                      (D) public
6. It can be inferred from the passage that early hotelkeepers in the United States were  
(A) active politicians                                      (B) European immigrants  
(C) Professional builders                                      (D) Influential citizens

7. Which of the following statements about early American hotels is NOT mentioned in the passage?
- (A) Travelers from abroad did not enjoy staying in them.
  - (B) Conventions were held in them
  - (C) People used them for both business and pleasure.
  - (D) They were important to the community.

**Question 8-17**

Line Beads were probably the first durable ornaments humans possessed, and the  
(5) intimate relationship they had with their owners is reflected in the fact that beads are among the most common items found in ancient archaeological sites. In the past, as today, men, women, and children adorned themselves with beads. In some cultures still, certain beads are often worn from birth until death, and then are buried with their owners for the afterlife. Abrasion due to daily wear alters the surface features of beads, and if they are buried for long, the effects of corrosion can further change their appearance. Thus, interest is imparted to the bead both by use and the effects of time.

(10) Besides their wearability, either as jewelry or incorporated into articles of attire, beads possess the desirable characteristics of every collectible, they are durable, portable, available in infinite variety, and often valuable in their original cultural context as well as in today's market. Pleasing to look at and touch, beads come in shapes, colors, and materials that almost compel one to handle them and to sort them.

(15) Beads are miniature bundles of secrets waiting to be revealed: their history, manufacture, cultural context, economic role, and ornamental use are all points of information one hopes to unravel. Even the most mundane beads may have traveled great distances and been exposed to many human experiences. The bead researcher must gather information from many diverse fields. In addition to having to be a generalist while specializing in what may seem to be a narrow field, the researcher is  
(20) faced with the problem of primary materials that have little or no documentation. Many ancient beads that are of ethnographic interest have often been separated from their original cultural context.

(25) The special attractions of beads contribute to the uniqueness of bead research. While often regarded as the "small change of civilizations", beads are a part of every culture, and they can often be used to date archaeological sites and to designate the degree of mercantile, technological, and cultural sophistication.

8. What is the main subject of the passage?
- (A) Materials used in making beads
  - (B) How beads are made
  - (C) The reasons for studying beads
  - (D) Different types of beads
9. The word "adorned" in line 4 is closest in meaning to
- (A) protected
  - (B) decorated
  - (C) purchased
  - (D) enjoyed
10. The word "attire" in line 9 is closest in meaning to
- (A) ritual
  - (B) importance
  - (C) clothing
  - (D) history
11. All of the following are given as characteristics of collectible objects EXCEPT
- (A) durability
  - (B) portability
  - (C) value
  - (D) scarcity.
12. According to the passage, all of the following are factors that make people want to touch beads EXCEPT the

- (A) shape                      (B) color                      (C) material                      (D) odor
13. The word "unravel" in line 16 is closest in meaning to  
 (A) communicate              (B) transport              (C) improve              (D) discover
14. The word "mundane" in line 16 is closest in meaning to  
 (A) carved                      (B) beautiful                      (C) ordinary                      (D) heavy
15. It is difficult to trace the history of certain ancient beads because they  
 (A) are small in size  
 (B) have been buried underground  
 (C) have been moved from their original locations  
 (D) are frequently lost
16. Knowledge of the history of some beads may be useful in the studies done by which of the following?  
 (A) Anthropologists                      (B) Agricultural experts  
 (C) Medical researchers                      (D) Economists
17. Where in the passage does the author describe why the appearance of beads may change?  
 (A) Lines 3-4                      (B) Lines 6-8                      (C) Lines 12-13                      (D) Lines 20-22

### Question 18-31

In the world of birds, bill design is a prime example of evolutionary fine-tuning. Shorebirds such as oystercatchers use their bills to pry open the tightly sealed shells of their prey; hummingbirds have stiletto-like bills to probe the deepest nectar-bearing  
*Line* flowers; and kiwis smell out earthworms thanks to nostrils located at the tip of their  
 (5) beaks. But few birds are more intimately tied to their source of sustenance than are crossbills. Two species of these finches, named for the way the upper and lower parts of their bills cross, rather than meet in the middle, reside in the evergreen forests of North America and feed on the seeds held within the cones of coniferous trees.

The efficiency of the bill is evident when a crossbill locates a cone. Using a lateral  
 (10) motion of its lower mandible, the bird separates two overlapping scales on the cone and exposes the seed. The crossed mandibles enable the bird to exert a powerful biting force at the bill tips, which is critical for maneuvering them between the scales and spreading the scales apart. Next, the crossbill snakes its long tongue into the gap and draws out the seed. Using the combined action of the bill and tongue, the bird cracks  
 (15) open and discards the woody seed covering action and swallows the nutritious inner kernel. This whole process takes but a few seconds and is repeated hundreds of times a day.

The bills of different crossbill species and subspecies vary - some are stout and deep, others more slender and shallow. As a rule, large-billed crossbills are better at  
 (20) seeming seeds from large cones, while small-billed crossbills are more deft at removing the seeds from small, thin-scaled cones. Moreover, the degree to which cones are naturally slightly open or tightly closed helps determine which bill design is the best.

One anomaly is the subspecies of red crossbill known as the Newfoundland crossbill. This bird has a large, robust bill, yet most of Newfoundland's conifers have small cones, the same kind of cones that the slender-billed white-wings rely on.

18. What does the passage mainly discuss?  
(A) The importance of conifers in evergreen forests  
(B) The efficiency of the bill of the crossbill  
(C) The variety of food available in a forest  
(D) The different techniques birds use to obtain food
19. Which of the following statements best represents the type of "evolutionary fine-tuning" mentioned in line 1?  
(A) Different shapes of bills have evolved depending on the available food supply  
(B) White-wing crossbills have evolved from red crossbills  
(C) Newfoundland's conifers have evolved small cones  
(D) Several subspecies of crossbills have evolved from two species
20. Why does the author mention oystercatchers, hummingbirds, and kiwis in lines 2-4?  
(A) They are examples of birds that live in the forest  
(B) Their beaks are similar to the beak of the crossbill  
(C) They illustrate the relationship between bill design and food supply  
(D) They are closely related to the crossbill
21. Crossbills are a type of  
(A) shorebird                      (B) hummingbird                      (C) kiwi                      (D) finch
22. Which of the following most closely resembles the bird described in lines 6-8?  
*Unable to find options for this question*
23. The word "which" in line 12 refers to  
(A) seed                      (B) bird                      (C) force                      (D) bill
24. The word "gap" in line 13 is closest in meaning to  
(A) opening                      (B) flower                      (C) mouth                      (D) tree
25. The word "discards" in line 15 is closest in meaning to  
(A) eats                      (B) breaks                      (C) finds out                      (D) gets rid of
26. The word "others" in line 18 refers to  
(A) bills                      (B) species                      (C) seeds                      (D) cones
27. The word "deft" in line 19 is closest in meaning to  
(A) hungry                      (B) skilled                      (C) tired                      (D) pleasant
28. The word "robust" in line 24 is closest in meaning to  
(A) strong                      (B) colorful                      (C) unusual                      (D) sharp
29. In what way is the Newfoundland crossbill an anomaly?  
(A) It is larger than the other crossbill species  
(B) It uses a different technique to obtain food  
(C) The size of its bill does not fit the size of its food source  
(D) It does not live in evergreen forests.
30. The final paragraph of the passage will probably continue with a discussion of  
(A) other species of forest birds  
(B) the fragile ecosystem of Newfoundland  
(C) what mammals live in the forests of North America

(D) how the Newfoundland crossbill survives with a large bill

31. Where in the passage does the author describe how a crossbill removes a seed from its cone?  
 (A) The first paragraph (B) The second paragraph  
 (C) The third paragraph (D) The fourth paragraph

### Question 32-38

If you look closely at some of the early copies of the Declaration of Independence, beyond the flourished signature of John Hancock and the other 55 men who signed it, you will also find the name of one woman, Mary Katherine Goddard. It was she, a  
*Line* Baltimore printer, who published the first official copies of the Declaration, the first  
 (5) copies that included the names of its signers and therefore heralded the support of all thirteen colonies.

Mary Goddard first got into printing at the age of twenty-four when her brother opened a printing shop in Providence, Rhode Island, in 1762. When he proceeded to get into trouble with his partners and creditors, it was Mary Goddard and her mother  
 (10) who were left to run the shop. In 1765 they began publishing *the Providence Gazette*, a weekly newspaper. Similar problems seemed to follow her brother as he opened businesses in Philadelphia and again in Baltimore. Each time Ms. Goddard was brought in to run the newspapers. After starting Baltimore's first newspaper, *The Maryland Journal*, in 1773, her brother went broke trying to organize a colonial postal  
 (15) service. While he was in debtor's prison. Mary Katherine Goddard's name appeared on the newspaper's masthead for the first time.

When the Continental Congress fled there from Philadelphia in 1776, it commissioned Ms. Goddard to print the first official version of the Declaration of Independence in January 1777. After printing the documents, she herself paid the post  
 (20) riders to deliver the Declaration throughout the colonies.

During the American Revolution, Mary Goddard continued to publish Baltimore's only newspaper, which one historian claimed was "second to none among the colonies". She was also the city's postmaster from 1775 to 1789 - appointed by Benjamin Franklin - and is considered to be the first woman to hold a federal position.

32. With which of the following subjects is the passage mainly concerned?  
 (A) The accomplishments of a female publisher  
 (B) The weakness of the newspaper industry  
 (C) The rights of a female publisher  
 (D) The publishing system in colonial America
33. Mary Goddard's name appears on the Declaration of Independence because  
 (A) she helped write the original document (B) she published the document  
 (C) she paid to have the document printed (D) her brother was in prison
34. The word "heralded" in line 5 is closest in meaning to  
 (A) influenced (B) announced (C) rejected (D) ignored
35. According to the passage, Mary Goddard first became involved in publishing when she  
 (A) was appointed by Benjamin Franklin (B) signed the Declaration of Independence.  
 (C) took over her brother's printing shop (D) moved to Baltimore
36. The word "there" in line 17 refers to  
 (A) the colonies (B) the print shop (C) Baltimore (D) Providence

37. It can be inferred from the passage that Mary Goddard was  
(A) an accomplished businesswoman (B) extremely wealthy  
(C) a member of the Continental Congress (D) a famous writer
38. The word "position" in line 24 is closest in meaning to  
(A) job (B) election (C) document (D) location

**Question 39-50**

Galaxies are the major building blocks of the universe. A galaxy is giant family of many millions of stars, and it is held together by its own gravitational field. Most of the material universe is organized into galaxies of stars together with gas and dust.

- Line* There are three main types of galaxy: spiral, elliptical, and irregular. The Milky  
(5) Way is a spiral galaxy, a flattish disc of stars with two spiral arms emerging from its central nucleus. About one-quarter of all galaxies have this shape. Spiral galaxies are well supplied with the interstellar gas in which new stars form: as the rotating spiral pattern sweeps around the galaxy it compresses gas and dust, triggering the formation of bright young stars and in its arms. The elliptical galaxies have a symmetrical elliptical or  
(10) spheroidal shape with no obvious structure. Most of their member stars are very old and since ellipticals are devoid of interstellar gas, no new stars are forming in them. The biggest and brightest galaxies in the universe are ellipticals with masses of about 10<sup>13</sup> times that of the Sun, these giants may frequently be sources of strong radio emission, in which case they are called radio galaxies. About two-thirds of all galaxies  
(15) are elliptical. Irregular galaxies comprise about one-tenth of all galaxies and they come in many subclasses.

- Measurement in space is quite different from measurement on Earth. Some terrestrial distances can be expressed as intervals of time, the time to fly from one continent to another or the time it takes to drive to work, for example. By comparison  
(25) with these familiar yardsticks, the distances to the galaxies are incomprehensibly large, but they too are made more manageable by using a time calibration, in this case the distance that light travels in one year. On such a scale the nearest giant spiral galaxy, the Andromeda galaxy, is two million light years away. The most distant luminous objects seen by telescopes are probably ten thousand million light years away. Their  
(30) light was already halfway here before the Earth even formed. The light from the nearby Virgo galaxy set out when reptiles still dominated the animal world.

39. The word "major" in line 1 is closest in meaning to  
(A) intense (B) principal (C) huge (D) unique
40. What does the second paragraph mainly discuss?  
(A) The Milky Way  
(B) Major categories of galaxies  
(C) How elliptical galaxies are formed  
(D) Differences between irregular and spiral galaxies
41. The word "which" in line 7 refers to  
(A) dust (B) gas (C) pattern (D) galaxy
42. According to the passage, new stars are formed in spiral galaxies due to  
(A) an explosion of gas (B) the compression of gas and dust  
(C) the combining of old stars (D) strong radio emissions
43. The word "symmetrical" in line 9 is closest in meaning to



- (A) proportionally balanced (B) commonly seen  
(C) typically large (D) steadily growing
44. The word "obvious" in line 10 is closest in meaning to  
(A) discovered (B) apparent (C) understood (D) simplistic
45. According to the passage, which of the following is NOT true of elliptical galaxies?  
(A) They are the largest galaxies.  
(B) They mostly contain old stars.  
(C) They contain a high amount of interstellar gas.  
(D) They have a spherical shape.
46. Which of the following characteristics of radio galaxies is mentioned in the passage?  
(A) They are a type of elliptical galaxy.  
(B) They are usually too small to be seen with a telescope.  
(C) They are closely related to irregular galaxies.  
(D) They are not as bright as spiral galaxies.
47. What percentage of galaxies are irregular?  
(A) 10% (B) 25% (C) 50% (D) 75%
48. The word "they" in line 21 refers to  
(A) intervals (B) yardsticks (C) distances (D) galaxies
49. Why does the author mention the Virgo galaxy and the Andromeda galaxy in the third paragraph?  
(A) To describe the effect that distance has on visibility.  
(B) To compare the ages of two relatively young galaxies.  
(C) To emphasize the vast distances of the galaxies from Earth.  
(D) To explain why certain galaxies cannot be seen by a telescope.
50. The word "dominated" in line 26 is closest in meaning to  
(A) threatened (B) replaced  
(C) were developing in (D) were prevalent in

# PRACTICE TEST 31

## December 1997

### Questions 1-10

Before the mid-1860's, the impact of the railroads in the United States was limited, in the sense that the tracks ended at the Missouri River, approximately the centers of the country. At that point the trains turned their freight, mail, and passengers over to steamboats, wagons, and stagecoaches. This meant that wagon freighting, stagecoaching and steamboating did not come to an end when the first train appeared; rather they became supplements or feeders. Each new "end-of-track" became a center for animaldrawn or waterborne transportation. The major effect of the railroad was to shorten the distance that had to be covered by the older, slower, and more costly means. Wagon freighters continued operating throughout the 1870's and 1880's and into the 1890's, although over constantly shrinking routes, and coaches and wagons continued to crisscross the West wherever the rails had not yet been laid.

The beginning of a major change was foreshadowed in the later 1860's, when the Union Pacific Railroad at last began to build westward from the Central Plains city of Omaha to meet the Central Pacific Railroad advancing eastward from California through the formidable barriers of the Sierra Nevada. Although President Abraham Lincoln signed the original Pacific Railroad bill in 1862 and a revised, financially much more generous version in 1864, little construction was completed until 1865 on the Central Pacific and 1866 on the Union Pacific. The primary reason was skepticism that a railroad built through so challenging and thinly settled a stretch of desert, mountain, and semiarid plain could pay a profit. In the words of an economist, this was a case of "premature enterprise", where not only the cost of construction but also the very high risk deterred private investment. In discussing the Pacific Railroad bill, the chair of the congressional committee bluntly stated that without government subsidy no one would undertake so unpromising a venture; yet it was a national necessity to link East and West together.

1. The author refers to the impact of railroads before the late 1860's as "limited" because
  - (A) the tracks did not take the direct route from one city to the next
  - (B) passenger and freight had to transfer to other modes of transportation to reach western destinations
  - (C) passengers preferred stagecoaches
  - (D) railroad travel was quite expensive
2. The word "they" in line 5 refers to
  - (A) tracks
  - (B) trains
  - (C) freight, mail, and passengers
  - (D) steamboats, wagons, and stagecoaches
3. The word "supplements" in line 6 is closest in meaning to
  - (A) extensions
  - (B) reformers
  - (C) dependents
  - (D) influences
4. What can be inferred about coaches and wagon freighters as the railroads expanded?
  - (A) They developed competing routes.
  - (B) Their drivers refused to work for the railroads.
  - (C) They began to specialize in transporting goods.
  - (D) They were not used as much as before.

5. The word "crisscross" in line 11 is closest in meaning to  
 (A) lead the way (B) separate  
 (C) move back and forth (D) uncover
6. Why does the author mention the Sierra Nevada in line 15?  
 (A) To argue that a more direct route to the West could have been taken  
 (B) To identify a historically significant mountain range in the West  
 (C) To point out the location of a serious train accident  
 (D) To give an example of an obstacle face by the Central Pacific
7. The word "skepticism" in line 18 is closest in meaning to  
 (A) doubt (B) amazement (C) urgency (D) determination
8. The Pacific railroads were considered a "premature enterprise" (line 21) because  
 (A) the technology of railroad cars was not fully developed  
 (B) there was not enough wood and steel for the tracks  
 (C) the cost and risks discouraged private investment  
 (D) there were insufficient numbers of trained people to operate them
9. The word "subsidy" in line 23 is closest in meaning to  
 (A) persuasion (B) financing (C) explanation (D) penalty
10. Where in the passage does the author give example of geographical challenges to railroad construction?  
 (A) Lines 4-6 (B) Lines 8-11 (C) Lines 18-20 (D) Lines 22-25

### Questions 11-22

Humanity's primal efforts to systematize the concepts of size, shapes, and number are usually regarded as the earliest mathematics. However, the concept of number and the counting process developed so long before the time of recorded history (there is archaeological evidence that counting was employed by humans as far back as 50,000

(5) years ago) that the manner of this development is largely conjectural. Imagining how it probably came about is not difficult. The argument that humans, even in prehistoric times, had some number sense, at least to the extent of recognizing the concepts of more and less when some objects were added to or taken away from a small group, seems fair, for studies have shown that some animal possess such a sense.

(10) With the gradual evolution of society, simple counting became imperative. A tribe had to know how many members it had and how many enemies, and shepherd needed to know if the flock of sheep was decreasing in size. Probably the earliest way of keeping a count was by some simple tally method, employing the principle of one-to-one correspondence. In keeping a count of sheep, for example, one finger per sheep could

(15) be turned under. Counts could also be maintained by making scratches in the dirt or on a stone, by cutting notches in a piece of wood, or by tying knots in a string.

Then, perhaps later, an assortment of vocal sounds was developed as a word tally against the number of objects in a small group. And still later, with the refinement of writing, a set of signs was devised to stand for these numbers. Such an imagined

(20) development is supported by reports of anthropologists in their studies of present-day societies that are thought to be similar to those of early humans.

11. What does the passage mainly discuss?  
(A) The efforts of early humans to care for herds of animals  
(B) The development of writing  
(C) The beginnings of mathematics  
(D) Similarities in number sense between humans and animals
12. The word "conjectural" in line 5 is closest in meaning to  
(A) complex  
(B) based on guessing  
(C) unbelievable  
(D) supported by careful research
13. Why does the author mention animals in line 9?  
(A) To support a theory about the behavior of early humans  
(B) To identify activities that are distinctly human  
(C) To illustrate the limits of a historical record of human development  
(D) To establish that early human kept domesticated animals
14. The word "it" in line 11 refers to  
(A) evolution  
(B) counting  
(C) tribe  
(D) shepherd
15. What is the basic principle of the tally method described in the second paragraph?  
(A) The count is recorded permanently.  
(B) Calculations provide the total count.  
(C) Large quantities are represented by symbols.  
(D) Each marker represents a singly object.
16. The word "employing" in line 13 is closest in meaning to  
(A) using  
(B) paying  
(C) focusing  
(D) hiring
17. Which of the following is NOT mentioned as an early methods of counting?  
(A) Cutting notches  
(B) Bending fingers  
(C) Piling stones  
(D) Tying knots
18. The word "maintained" in line 15 is closest in meaning to  
(A) justified  
(B) asserted  
(C) located  
(D) kept
19. The word "assortment" in line 17 is closest in meaning to  
(A) instrument  
(B) variety  
(C) surplus  
(D) symbol
20. It can be inferred that research in other academic fields relates to research in the author's field in which of the following ways?  
(A) It contributes relevant information  
(B) It is carried out on a simpler level.  
(C) It is less reliable than research in the author's field.  
(D) It causes misunderstandings if applied to the author's field.
21. Which of the following conclusions is supported by the passage?  
(A) Counting processes did not develop until after writing became widespread.  
(B) Early counting methods required herds of animals.  
(C) Mathematics has remained unchanged since ancient times.  
(D) Early humans first counted because of necessity.
22. Where in the passage does the author mention the ability of animals to recognized small and large groups?  
(A) Lines 1-2  
(B) Lines 6-9  
(C) Lines 10-12  
(D) Lines 17-18

### Questions 23-31

As the merchant class expanded in the eighteenth-century North American colonies, the silversmith and the coppersmith businesses rose to serve it. Only a few silversmiths were available in New York or Boston in the late seventeenth century, but in the  
*Line* eighteenth century they could be found in all major colonial cities. No other colonial  
 (5) artisans rivaled the silversmiths' prestige. They handled the most expensive materials and possessed direct connections to prosperous colonies merchants. Their products, primarily silver plates and bowls, reflected their exalted status and testified to their customers' prominence.

Silver stood as one of the surest ways to store wealth at a time before neighborhood  
 (10) banks existed. Unlike the silver coins from which they were made, silver articles were readily identifiable. Often formed to individual specifications, they always carried the silversmith's distinctive markings and consequently could be traced and retrieved. Customers generally secured the silver for the silver objects they ordered. They saved coins, took them to smiths, and discussed the type of pieces they desired.  
 (15) Silversmiths complied with these requests by melting the money in a small furnace, adding a bit of copper to form a stronger alloy, and casting the alloy in rectangular blocks. They hammered these ingots to the appropriate thickness by hand, shaped them, and pressed designs into them for adornment. Engraving was also done by hand. In addition to plates and bowls, some customers sought more intricate products, such as  
 (20) silver teapots. These were made by shaping or casting parts separately and then soldering them together.

Colonial coppersmithing also came of age in the early eighteenth century and prospered in northern cities. Copper's ability to conduct heat efficiently and to resist corrosion contributed to its attractiveness. But because it was expensive in colonial  
 (25) America, coppersmiths were never very numerous. Virtually all copper worked by smiths was imported as sheets or obtained by recycling old copper goods. Copper was used for practical items, but it was not admired for its beauty. Coppersmiths employed it to fashion pots and kettles for the home. They shaped it in much the same manner as silver or melted it in a foundry with lead or tin. They also mixed it with zinc to make  
 (30) brass for maritime and scientific instruments.

23. According to the passage, which of the following eighteenth-century developments had a strong impact on silversmiths?

- (A) a decrease in the cost of silver
- (B) the invention of heat-efficient furnaces
- (C) the growing economic prosperity of colonial merchants
- (D) the development of new tools used to shape silver

24. The word "They" in line 5 refers to

- (A) silversmiths
- (B) major colonial cities
- (C) other colonial artisans
- (D) materials

25. The word "exalted" in line 7 is closest in meaning to

- (A) unusual
- (B) uncertain
- (C) surprising
- (D) superior

26. In colonial America, where did silversmiths usually obtain the material to make silver articles?

- (A) From their own mines  
(C) From other silversmiths
- (B) From importers  
(D) From customers
27. The word "ingots" in line 17 refers to  
(A) coins that people saved  
(C) tools used to shape silver plates
- (B) blocks of silver mixed with copper  
(D) casts in which to form parts of silver articles
28. The phrase "came of age" in line 22 is closest in meaning to  
(A) established itself  
(C) became less expensive
- (B) declined  
(D) was studied
29. The passage mentions all of the following as uses for copper in colonial America EXCEPT  
(A) cooking pots  
(C) musical instruments
- (B) scientific instruments  
(D) maritime instruments
30. According to the passage, silversmiths and coppersmiths in colonial America were similar in which of the following ways?  
(A) The amount of social prestige they had  
(B) The way they shaped the metal they worked with  
(C) The cost of the goods they made  
(D) The practicality of goods they made
31. Based on the information in paragraph 4, which of the following was probably true about copper in the colonies?  
(A) The copper used by colonists was not effective in conducting heat.  
(B) The copper items created by colonial coppersmiths were not skillfully made.  
(C) There were no local copper mines from which copper could be obtained.  
(D) The price of copper suddenly decreased.

### **Questions 32-40**

Fossils are the remains and traces (such as footprints or other marks) of ancient plant and animal life that are more than 10,000 years old. They range in size from microscopic structures to dinosaur skeletons and complete bodies of enormous animals.

*Line* Skeletons of extinct species of human are also considered fossils.

- (5) An environment favorable to the growth and later preservation of organisms is required for the occurrence of fossils. Two conditions are almost always present:  
(1) The possession of hard parts, either internal or external, such as bones, teeth, scales, shells, and wood; these parts remain after the rest of the organism has decayed. Organisms that lack hard parts, such as worms and jelly fish, have left a meager  
(10) geologic record. (2) Quick burial of the dead organism, so that protection is afforded against weathering, bacterial action, and scavengers.

- (15) Nature provides many situations in which the remains of animals and plants are protected against destruction. Of these, marine sediment is by far the most important environment for the preservation of fossils, owing to the incredible richness of marine life. The beds of former lakes are also prolific sources of fossils. The rapidly accumulating sediments in the channels, floodplains, and deltas of streams bury fresh-water organisms, along with land plants and animals that fall into the water. The beautifully preserved fossil fish from the Green River soil shale of Wyoming in the western United States lived in a vast shallow lake.

- (20) The frigid ground in the far north acts as a remarkable preservative for animal fossils. The woolly mammoth, along-haired rhinoceros, and other mammals have been

periodically exposed in the tundra of Siberia, the hair and red flesh still frozen in cold storage.

- (25) Volcanoes often provide environments favorable to fossil preservation. Extensive falls of volcanic ash and coarser particles overwhelm and bury all forms of life, from flying insects to great trees.

- (30) Caves have preserved the bones of many animals that died in them and were subsequently buried under a blanket of clay or a cover of dripstone. Predatory animals and early humans alike sought shelter in caves and brought food to them to the eater, leaving bones that paleontologists have discovered.

32. The passage primarily discusses which of the following?  
 (A) Types of fossils found in different climates  
 (B) What is learned from studying fossils  
 (C) Conditions favorable to the preservation of fossils  
 (D) How fossils are discovered
33. The word "traces" in line 1 is closest in meaning to  
 (A) structures (B) importance (C) skeletons (D) imprints
34. All of the following facts about fossils are referred to by the author (paragraph 1) EXCEPT the fact that they can be  
 (A) microscopically small (B) skeletons of human ancestors  
 (C) complete animal bodies (D) fragile
35. The fossil fish from the Green River (paragraph 3) were probably preserved because they were  
 (A) in a deep lake (B) covered by sediment  
 (C) protected by oil (D) buried slowly
36. The word "exposed" in line 22 is closest in meaning to  
 (A) photographed (B) uncovered (C) located (D) preserved
37. Which of the following is LEAST likely to be found as a fossil, assuming that all are buried rapidly?  
 (A) a dinosaur (B) a woolly mammoth  
 (C) a human ancestor (D) a worm
38. It can be inferred that a condition that favors fossilization when volcanic ash falls to Earth is  
 (A) quick burial (B) cold storage (C) high temperature (D) lack of water
39. The word "them" in line 29 refers to  
 (A) predatory animals (B) early humans (C) caves (D) bones
40. Which of the following is true of the environments in which fossil are found?  
 (A) Very different environments can favor fossilization.  
 (B) There are few environments in which fossils are protected.  
 (C) Environments that favor fossilization have similar climates.  
 (D) Environments that favor fossilization support large populations of animals.

**Questions 41-50**

A useful definition of an air pollutant is a compound added directly or indirectly by humans to the atmosphere in such quantities as to affect humans, animals vegetations, or materials adversely. Air pollution requires a very flexible definition

- Line* that permits continuous change. When the first air pollution laws were established in  
(5) England in the fourteenth century, air pollutants were limited to compounds that could be seen or smelled—a far cry from the extensive list of harmful substances known today. As technology has developed and knowledge of the health aspects of various chemicals has increased, the list of air pollutants has lengthened. In the future, even water vapor might be considered an air pollutant under certain conditions.  
(10) Many of the more important air pollutants, such as sulfur oxides, carbon monoxide, and nitrogen oxides, are found in nature. As the Earth developed, the concentrations of these pollutants were altered by various chemical reactions; they became components in biogeochemical cycle. These serve as an air purification scheme by allowing the compounds to move from the air to the water or soil on a global basis, nature's  
(15) output of these compounds dwarfs that resulting from human activities. However, human production usually occurs in a localized area, such as a city.

In this localized regions, human output may be dominant and may temporarily overload the natural purification scheme of the cycle. The result is an increased concentration of noxious chemicals in the air. The concentrations at which the adverse effects

- (20) appear will be greater than the concentrations that the pollutants would have in the absence of human activities. The actual concentration need not be large for a substance to be a pollutant; in fact the numerical value tells us little until we know how much of an increase this represents over the concentration that would occur naturally in the area. For example, sulfur dioxide has detectable health effects at  
(25) 0.08 parts per million (ppm), which is about 400 times its natural level. Carbon monoxide, however, has a natural level of 0.1 ppm and is not usually a pollutant until its level reaches about 15 ppm.

41. What does the passage mainly discuss?  
(A) The economic impact of air pollution  
(B) What constitutes an air pollutant  
(C) How much harm air pollutants can cause  
(D) The effects of compounds added to the atmosphere
42. The word "adversely" in line 3 is closest in meaning to  
(A) negatively                      (B) quickly                      (C) admittedly                      (D) considerably
43. It can be inferred from the first paragraph that  
(A) water vapor is an air pollutant in localized areas  
(B) most air pollutants today can be seen or smelled  
(C) the definition of air pollution will continue to change  
(D) a substance becomes an air pollutant only in cities



44. The word "altered" in line 12 is closest in meaning to  
(A) eliminated                      (B) caused                      (C) slowed                      (D) changed
45. Natural pollutants can play an important role in controlling air pollution for which of the following reasons?  
(A) They function as part of a purification process.  
(B) They occur in greater quantities than other pollutants.  
(C) They are less harmful to living beings than are other pollutants.  
(D) They have existed since the Earth developed.
46. According to the passage, which of the following is true about human-generated air pollution in localized regions?  
(A) It can be dwarfed by nature's output of pollutants in the localized region.  
(B) It can overwhelm the natural system that removes pollutants.  
(C) It will damage areas outside of the localized regions.  
(D) It will react harmfully with naturally occurring pollutants.
47. The word "noxious" in line 19 is closest in meaning to  
(A) harmful                      (B) noticeable                      (C) extensive                      (D) weak
48. According to the passage, the numerical value of the concentration level of a substance is only useful if  
(A) the other substances in the area are known  
(B) it is in a localized area  
(C) the naturally occurring level is also known  
(D) it can be calculated quickly
49. The word "detectable" in line 24 is closest in meaning to  
(A) beneficial                      (B) special                      (C) measurable                      (D) separable
50. Which of the following is best supported by the passage?  
(A) To effectively control pollution local government should regularly review their air pollution laws.  
(B) One of the most important steps in preserving natural lands is to better enforce air pollution laws.  
(C) Scientists should be consulted in order to establish uniform limits for all air pollutants.  
(D) Human activities have been effective in reducing air pollution.

# PRACTICE TEST 32

## January 1996

### Questions 1-9

In science, a theory is a reasonable explanation of observed events that are related. A theory often involves an imaginary model that helps scientists picture the way an observed event could be produced. A good example of this is found in the kinetic molecular theory, in which gases are pictured as being made up of many small particles that are in constant motion.

(5)

A useful theory, in addition to explaining past observations, helps to predict events that have not as yet been observed. After a theory has been publicized, scientists design experiments to test the theory. If observations confirm the scientists' predictions, the theory is supported. If observations do not confirm the predictions, the scientists must search further. There may be a fault in the experiment, or the theory may have to be revised or rejected.

(10)

Science involves imagination and creative thinking as well as collecting information and performing experiments. Facts by themselves are not science. As the mathematician Jules Henri Poincare said: "Science is built with facts just as a house is built with bricks, But a collection of facts cannot be called science any more than a pile of bricks can be called a house."

(15)

Most scientists start an investigation by finding out what other scientists have learned about a particular problem. After known facts have been gathered, the scientist comes to the part of the investigation that requires considerable imagination. Possible solutions to the problem are formulated. These possible solutions are called hypotheses. In a way, any hypothesis is a leap into the unknown. It extends the scientist's thinking beyond the known facts. The scientist plans experiments, performs calculations and makes observations to test hypotheses. For without hypotheses, further investigation lacks purpose and direction. When hypotheses are confirmed, they are incorporated into theories.

(20)

1. The word "related" in line 1 is closest in meaning to  
(A) connected                      (B) described                      (C) completed                      (D) identified
2. The word "this" in line 3 refers to  
(A) a good example                      (B) an imaginary model  
(C) the kinetic molecular theory                      (D) an observed event
3. According to the second paragraph, a useful theory is one that helps scientists to  
(A) find errors in past experiments                      (B) make predictions  
(C) observe events                      (D) publicize new findings
4. The word "supported" in line 9 is closest in meaning to  
(A) finished                      (B) adjusted                      (C) investigated                      (D) upheld
5. Bricks are mentioned in lines 14-16 to indicate how  
(A) mathematicians approach science  
(B) building a house is like performing experiments  
(C) science is more than a collection of facts  
(D) scientific experiments have led to improved technology

6. In the fourth paragraph, the author implies that imagination is most important to scientists when they  
 (A) evaluate previous work on a problem (B) formulate possible solutions to a problem  
 (C) gather known facts (D) close an investigation
7. In line 21, the author refers to a hypotheses as "a leap into the unknown" in order to show that hypotheses  
 (A) are sometimes ill-conceived (B) can lead to dangerous resultss  
 (C) go beyond available facts (D) require effort to formulate
8. In the last paragraph, what does the author imply a major function of hypotheses?  
 (A) Sifting through known facts  
 (B) Communicating a scientist's thoughts to others  
 (C) Providing direction for scientific research  
 (D) Linking together different theories
9. Which of the following statements is supported by the passage?  
 (A) Theories are simply imaginary models of past events.  
 (B) It is better to revise a hypothesis than to reject it.  
 (C) A scientist's most difficult task is testing hypotheses.  
 (D) A good scientist needs to be creative.

### Question 10-20

- By the mid-nineteenth century, the term "icebox" had entered the American language, but ice was still only beginning to affect the diet of ordinary citizens in the United States. The ice trade grew with the growth of cities. Ice was used in hotels, taverns, and hospitals, and by some forward-looking city dealers in fresh meat, fresh  
 (5) fish, and butter. After the Civil War (1860-1865), as ice used to refrigerate freight cars, it also came into household use. Even before 1880, half the ice sold in New York, Philadelphia, and Baltimore, and one-third of that sold in Boston and Chicago, went to families for their own use. This had become possible because a new household convenience, the icebox, a precursor of the modern refrigerator, had been invented.
- (10) Making an efficient icebox was not as easy as we might now suppose. In the early nineteenth century, the knowledge of the physics of heat, which was essential to a science of refrigeration, was rudimentary. The commonsense notion that the best icebox was one that prevented the ice from melting was of course mistaken, for it was the melting of the ice that performed the cooling. Nevertheless, early efforts to  
 (15) economize ice included wrapping the ice in blankets, which kept the ice from doing its job. Not until near the end of the nineteenth century did inventors achieve the delicate balance of insulation and circulation needed for an efficient icebox.

- But as early as 1803, an ingenious Maryland farmer, Thomas Moore, had been on the right track. He owned a farm about twenty miles outside the city of Washington, for  
 (20) which the village of Georgetown was the market center. When he used an icebox of his own design to transport his butter to market, he found that customers would pass up the rapidly melting stuff in the tubs of his competitors to pay a premium price for his butter, still fresh and hard in neat, one-pound bricks. One advantage of his icebox, Moore explained, was that farmers would no longer have to travel to market at night in order to keep their produce cool.

10. What does the passage mainly discuss?  
(A) The influence of ice on the diet (B) The development of refrigeration  
(C) The transportation of goods to market (D) Sources of ice in the nineteenth century
11. According to the passage, when did the word "icebox" become part of the language of the United States?  
(A) In 1803 (B) Sometime before 1850  
(C) During the Civil War (D) Near the end of the nineteenth century
12. The phrase "forward-looking" in line 4 is closest in meaning to  
(A) progressive (B) popular (C) thrifty (D) well-established
13. The author mentions fish in line 5 because  
(A) many fish dealers also sold ice  
(B) fish was shipped in refrigerated freight cars  
(C) fish dealers were among the early commercial users of ice  
(D) fish was not part of the ordinary person's diet before the invention of the icebox
14. The word "it" in line 6 refers to  
(A) fresh meat (B) the Civil War (C) ice (D) a refrigerator
15. According to the passage, which of the following was an obstacle to the development of the icebox?  
(A) Competition among the owners of refrigerated freight cars  
(B) The lack of a network for the distribution of ice  
(C) The use of insufficient insulation  
(D) Inadequate understanding of physics
16. The word "rudimentary" in line 12 is closest in meaning to  
(A) growing (B) undeveloped (C) necessary (D) uninteresting
17. According to the information in the second paragraph, an ideal icebox would  
(A) completely prevent ice from melting (B) stop air from circulating  
(C) allow ice to melt slowly (D) use blankets to conserve ice
18. The author describes Thomas Moore as having been "on the right track" (line 18-19) to indicate that  
(A) the road to the market passed close to Moore's farm  
(B) Moore was an honest merchant  
(C) Moore was a prosperous farmer  
(D) Moore's design was fairly successful
19. According to the passage, Moore's icebox allowed him to  
(A) charge more for his butter (B) travel to market at night  
(C) manufacture butter more quickly (D) produce ice all year round
20. The "produce" mentioned in line 25 could include  
(A) iceboxes (B) butter (C) ice (D) markets

## Question 21-30

Aside from perpetuating itself, the sole purpose of the American Academy and Institute of Arts and Letters is to "foster, assist and sustain an interest" in literature, music, and art. This it does by enthusiastically handing out money. Annual cash awards are given to deserving artists in various categories of creativity: architecture, musical

(5) composition, theater, novels, serious poetry, light verse, painting, sculpture. One award subsidizes a promising American writer's visit to Rome. There is even an award for a very good work of fiction that fallen commercially--once won by the young John Updike for *The Poorhouse Fair* and, more recently, by Alice Walker for *In Love and Trouble*.

(10) The awards and prizes total about \$750,000 a year, but most of them range in size from \$5,000 to \$12,500, a welcome sum to many young practitioners whose work may not bring in that much in a year. One of the advantages of the awards is that many go to the struggling artists, rather than to those who are already successful.

(15) Members of the Academy and Institute are not eligible for any cash prizes. Another advantage is that, unlike the National Endowment for the Arts or similar institutions throughout the world, there is no government money involved.

Awards are made by committee. Each of the three departments--Literature (120 members), Art(83), Music(47)--has a committee dealing with its own field.

(20) Committee membership rotates every year, so that new voices and opinions are constantly heard.

The most financially rewarding of all the Academy-Institute awards are the Mildred and Harold Strauss Livings. Harold Strauss, a devoted editor at Alfred A. Knopf, the New York publishing house, and Mildred Strauss, his wife, were wealthy any childless.

(25) They left the Academy-Institute a unique bequest: for five consecutive years, two distinguished (and financially needy) writers would receive enough money so they could devote themselves entirely to "prose literature" (no plays, no poetry, and no paying job that might distract). In 1983, the first Strauss Livings of \$35,000 a year went to short-story writer Raymond Carver and novelist-essayist Cynthia Ozick. By 1988, the fund had grown enough so that two winners, novelists Diane Johnson and Robert Stone, each got \$50,000 a year for five years.

21. What does the passage mainly discuss?

- (A) Award-winning works of literature  
(B) An organization that supports the arts  
(C) The life of an artist  
(D) Individual patrons of the arts

22. The word "sole" in line 1 is closest in meaning to

- (A) only  
(B) honorable  
(C) common  
(D) official

23. The word "subsidizes" in line 6 is closest in meaning to

- (A) assures  
(B) finances  
(C) schedules  
(D) publishes

24. Which of the following can be inferred about Alice Walker's book *In Love and Trouble*?

- (A) It sold more copies than *The Poorhouse Fair*.  
(B) It described the author's visit to Rome.  
(C) It was a commercial success.  
(D) It was published after *The Poorhouse Fair*.

25. Each year the awards and prizes offered by the Academy-Institute total approximately  
(A) \$12,500                      (B) \$53,000                      (C) \$50,000                      (D) \$750,000
26. The word "many" in line 13 refers to  
(A) practitioners                      (B) advantages                      (C) awards                      (D) strugglers
27. What is one of the advantages of the Academy-Institute awards mentioned in passage?  
(A) They are subsidized by the government.  
(B) They are often given to unknown artists.  
(C) They are also given to Academy-Institute members.  
(D) They influence how the National Endowment for the Arts makes its award decisions.
28. The word "rotates" in line 19 is closest in meaning to  
(A) alternates                      (B) participates                      (C) decides                      (D) meets
29. The word "they" in line 25 refers to  
(A) Mildred and Harold Strauss                      (B) years  
(C) writers                      (D) plays
30. Where in the passage does the author cite the goal of the Academy-Institute?  
(A) Lines 1-3                      (B) Lines 12-13                      (C) Line 19-20                      (D) Line 22-23

**Questions 31-41**

Archaeological records—paintings, drawings and carvings of humans engaged in activities involving the use of hands—indicate that humans have been predominantly right-handed for more than 5,000 years. In ancient Egyptian artwork, for example, the right hand is depicted as the dominant one in about 90 percent of the examples. Fracture  
(5) or wear patterns on tools also indicate that a majority of ancient people were right-handed. Cro-Magnon cave paintings some 27,000 years old commonly show outlines of human hands made by placing one hand against the cave wall and applying paint with the other. Children today make similar outlines of their hands with crayons on paper. With few exceptions, left hands of Cro-Magnons are displayed on cave walls, indicating that  
(10) the paintings were usually done by right-handers.

Anthropological evidence pushes the record of handedness in early human ancestors back to at least 1.4 million years ago. One important line of evidence comes from flaking patterns of stone cores used in tool making: implements flaked with a clockwise motion (indicating a right-handed toolmaker) can be distinguished from  
(15) those flaked with a counter-clockwise rotation (indicating a left-handed toolmaker).

Even scratches found on fossil human teeth offer clues. Ancient humans are thought to have cut meat into strips by holding it between their teeth and slicing it with stone knives, as do the present-day Inuit. Occasionally the knives slip and leave scratches on the users' teeth. Scratches made with a left-to-right stroke direction (by right-handers)  
(20) are more common than scratches in the opposite direction (made by left-handers).

Still other evidence comes from cranial morphology: scientists think that physical differences between the right and left sides of the interior of the skull indicate subtle physical differences between the two sides of the brain. The variation between the hemispheres corresponds to which side of the body is used to perform specific  
(25) activities. Such studies, as well as studies of tool use, indicate that right- or left-sided

dominance is not exclusive to modern Homo sapiens. Population of Neanderthals, such as Homo erectus and Homo habilis, seem to have been predominantly right-handed, as we are.

31. What is the main idea of the passage?  
 (A) Human ancestors became predominantly right-handed when they began to use tools.  
 (B) It is difficult to interpret the significance of anthropological evidence concerning tool use.  
 (C) Humans and their ancestors have been predominantly right-handed for over a million years.  
 (D) Human ancestors were more skilled at using both hands than modern humans.
32. The word "other" in line 8 refers to  
 (A) outline (B) hand (C) wall (D) paint
33. What does the author say about Cro-Magnon paintings of hands?  
 (A) Some are not very old. (B) It is unusual to see such paintings.  
 (C) Many were made by children. (D) The artists were mostly right-handed.
34. The word "implements" in line 13 is closest in meaning to  
 (A) tools (B) designs (C) examples (D) pieces
35. When compared with implements "flaked with a counter-clockwise rotation" (line 15), it can be inferred that "implements flaked with a clock-wise motion" (line 13-14) are  
 (A) more common (B) larger  
 (C) more sophisticated (D) older
36. The word "clues" in line 16 is closest in meaning to  
 (A) solutions (B) details (C) damage (D) information
37. The fact that the Inuit cut meat by holding it between their teeth is significant because  
 (A) the relationship between handedness and scratches on fossil human teeth can be verified  
 (B) it emphasizes the differences between contemporary humans and their ancestors  
 (C) the scratch patterns produced by stone knives vary significantly from patterns produced by modern knives  
 (D) it demonstrates that ancient humans were not skilled at using tools
38. The word "hemispheres" in line 24 is closest in meaning to  
 (A) differences (B) sides (C) activities (D) studies
39. Why does the author mention Homo erectus and Homo habilis in line 27?  
 (A) To contrast them with modern humans  
 (B) To explain when human ancestors began to make tools  
 (C) To show that early humans were also predominantly right handed  
 (D) To prove that the population of Neanderthals was very large
40. All of the follows are mentioned as types of evidence concerning handedness EXCEPT  
 (A) ancient artwork (B) asymmetrical skulls  
 (C) studies of tool use (D) fossilized hand bones
41. Which of the following conclusions is suggested by the evidence from cranial morphology (line 21)?  
 (A) Differences in the hemispheres of the brain probably came about relatively recently.  
 (B) there may be a link between handedness and differences in the brain's hemispheres  
 (C) Left-handedness was somewhat more common among Neanderthals

- (D) variation between the brain hemispheres was not evident in the skull of *Homo erectus* and *Homo Habilis*

**Questions 42-50**

Plants are subject to attack and infection by a remarkable variety of symbiotic species and have evolved a diverse array of mechanisms designed to frustrate the potential colonists. These can be divided into preformed or passive defense mechanisms and inducible or active systems. Passive plant defense comprises physical and chemical barriers that prevent entry of pathogens, such as bacteria, or render tissues unpalatable or toxic to the invader. The external surfaces of plants, in addition to being covered by an epidermis and a waxy cuticle, often carry spiky hairs known as trichomes, which either prevent feeding by insects or may even puncture and kill insect larvae. Other trichomes are sticky and glandular and effectively trap and immobilize insects.

- (5) If the physical barriers of the plant are breached, then preformed chemicals may inhibit or kill the intruder, and plant tissues contain a diverse array of toxic or potentially toxic substances, such as resins, tannins, glycosides, and alkaloids, many of which are highly effective deterrents to insects that feed on plants. The success of the Colorado beetle in infesting potatoes, for example, seems to be correlated with its high tolerance to alkaloids that normally repel potential pests. Other possible chemical defenses, while not directly toxic to the parasite, may inhibit some essential step in the establishment of a parasitic relationship. For example, glycoproteins in plant cell walls may inactivate enzymes that degrade cell walls. These enzymes are often produced by bacteria and fungi.

- (10) Active plant defense mechanisms are comparable to the immune system of vertebrate animals, although the cellular and molecular bases are fundamentally different. Both, however, are triggered in reaction to intrusion, implying that the host has some means of recognizing the presence of a foreign organism. The most dramatic example of an inducible plant defense reaction is the hypersensitive response. In the hypersensitive response, cells undergo rapid necrosis--that is, they become diseased and die--after being penetrated by a parasite; the part of the site itself subsequently ceases to grow and is therefore restricted to one or a few cells around the entry site. Several theories have been put forward to explain the basis of hypersensitive resistance.

42. What does the passage mainly discuss?  
(A) The success of parasites in resisting plant defense mechanisms  
(B) Theories on active plant defense mechanisms  
(C) How plant defense mechanisms function  
(D) How the immune system of animals and the defense mechanisms of plants differ
43. The phrase "subject to" in line 1 is closest in meaning to  
(A) susceptible to  
(B) classified by  
(C) attractive to  
(D) strengthened by
44. The word "puncture" in line 8 is closest in meaning to



- (A) pierce                      (B) pinch                      (C) surround                      (D) cover
45. The word "which" in line 13 refers to  
(A) tissues                      (B) substances                      (C) barriers                      (D) insects
46. Which of the following substances does the author mention as NOT necessarily being toxic to the Colorado beetle?  
(A) Resins                      (B) Tannins                      (C) Glycosides                      (D) Alkaloids
47. Why does the author mention "glycoproteins" in line 17?  
(A) To compare plant defense mechanisms to the immune system of animals  
(B) To introduce the discussion of active defense mechanisms in plants  
(C) To illustrate how chemicals function in plant defense  
(D) To emphasize the importance of physical barriers in plant defense
48. The word "dramatic" in line 23 could best be replaced by  
(A) striking                      (B) accurate                      (C) consistent                      (D) appealing
49. Where in the passage does the author describe an active plant defense reaction ?  
(A) lines 1-3                      (B) lines 4-6                      (C) lines 15-17                      (D) lines 24-27
50. The passage most probably continues with a discussion of theories on  
(A) the basis of passive plant defense  
(B) how chemicals inhibit a parasitic relationship  
(C) how plants produce toxic chemicals  
(D) the principles of the hypersensitive response

# PRACTICE TEST 33

## March 1996

### Questions 1-7

- Joyce Carol Oates published her first collection of short stories, *By The North Gate*, in 1963, two years after she had received her master's degree from the University of Wisconsin and become an instructor of English at the University of Detroit. Her productivity since then has been prodigious, accumulating in less than two decades to
- (5) nearly thirty titles, including novels, collections of short stories and verse, play, and literary criticism. In the meantime, she has continued to teach, moving in 1967 from the University of Detroit to the University of Windsor, in Ontario, and, in 1978, to Princeton University. Reviewers have admired her enormous energy, but find a productivity of such magnitude difficult to assess.
- (10) In a period characterized by the abandonment of so much of the realistic tradition by authors such as John Barth, Donald Barthelme, and Thomas Pynchon, Joyce Carol Oates has seemed at times determinedly old-fashioned in her insistence on the essentially mimetic quality of her fiction. Hers is a world of violence, insanity, fractured love, and hopeless loneliness. Although some of it appears to come from her
- (15) own direct observations, her dreams, and her fears, much more is clearly from the experiences of others. Her first novel, *With Shuddering Fall* (1964), dealt with stock car racing, though she had never seen a race. In *In Them* (1969) she focused on Detroit from the Depression through the riots of 1967, drawing much of her material from the deep impression made on her by the problems of one of her students. Whatever the
- (20) source and however shocking the events or the motivations, however, her fictive world remains strikingly akin to that real one reflected in the daily newspapers, the television news and talk shows, and popular magazines of our day.
1. What is the main purpose of the passage?  
(A) To review Oates' *By the North Gate* (B) To compare some modern writers  
(C) To describe Oates' childhood (D) To outline Oates' career
  2. Which of the following does the passage indicate about Joyce Carol Oates' first publication?  
(A) It was part of her master's thesis. (B) It was a volume of short fiction.  
(C) It was not successful. (D) It was about an English instructor in Detroit.
  3. Which of the following does the passage suggest about Joyce Carol Oates in terms of her writing career?  
(A) She has experienced long nonproductive periods in her writing.  
(B) Her style is imitative of other contemporary authors.  
(C) She has produced a surprising amount of fictions in a relative short time.  
(D) Most of her work is based on personal experience.
  4. The word "characterized" in line 10 can best be replaced by which of the following?  
(A) shocked (B) impressed (C) distinguished (D) helped
  5. What was the subject of Joyce Carol Oates' first novel?  
(A) Loneliness (B) Insanity (C) Teaching (D) Racing
  6. Why does the author mention Oates book *In Them*?  
(A) It is a typical novel of the 1960's.  
(B) It is her best piece of nonfiction.  
(C) It is a fictional work based on the experiences of another person.  
(D) It is an autobiography.

7. Which of the following would Joyce Carol Oates be most likely to write?

- (A) A story with an unhappy ending  
 (B) A romance novel set in the nineteenth century  
 (C) A science fiction novel  
 (D) A dialogue for a talk show

### Questions 8-18

Certainly no creature in the sea is odder than the common sea cucumber. All living creature, especially human beings, have their peculiarities, but everything about the little sea cucumber seems unusual. What else can be said about a bizarre animal that, among other eccentricities, eats mud, feeds almost continuously day and night but can live without eating for long periods, and can be poisonous but is considered supremely edible by gourmets?

(5)

For some fifty million years, despite all its eccentricities, the sea cucumber has subsisted on its diet of mud. It is adaptable enough to live attached to rocks by its tube feet, under rocks in shallow water, or on the surface of mud flats. Common in cool water on both Atlantic and Pacific shores, it has the ability to suck up mud or sand and digest whatever nutrients are present.

(10)

Sea cucumbers come in a variety of colors, ranging from black to reddish-brown to sand-color and nearly white. One form even has vivid purple tentacle. Usually the creatures are cucumber-shaped-hence their name-and because they are typically rock inhabitants, this shape, combine with flexibility, enables them to squeeze into crevices where they are safe from predators and ocean currents.

(15)

Although they have voracious appetites, eating day and night, sea cucumbers have the capacity to become quiescent and live at a low metabolic rate-feeding sparingly or not at all for long periods, so that the marine organisms that provide their food have a chance to multiply. If it were not for this faculty, they would devour all the food available in a short time and would probably starve themselves out of existence. But the most spectacular thing about the sea cucumber is the way it defends itself. Its major enemies are fish and crabs, when attacked, it squirts all its internal organs into the water. It also casts off attached structures such as tentacles. The sea cucumber will eviscerate and regenerate itself if it is attached or even touched; it will do the same if the surrounding water temperature is too high or if the water becomes too polluted.

(20)

(25)

8. What does the passage mainly discuss?

- (A) The reason for the sea cucumber's name  
 (B) What makes the sea cucumber unusual  
 (C) How to identify the sea cucumber  
 (D) Places where the sea cucumber can be found

9. In line 3, the word "bizarre" is closest in meaning to

- (A) odd  
 (B) marine  
 (C) simple  
 (D) rare

10. According to the Passage, why is the shape of sea cucumbers important?

- (A) It helps the to digest their food.  
 (B) It helps them to protect themselves from danger.  
 (C) It makes it easier for them to move through the mud.  
 (D) It makes them attractive to fish.

11. The word "this faculty" in line 20 refer to the sea cucumber's ability to

- (A) squeeze into crevices  
 (B) devour all available food in a short time

- (C) such up mud or sand (D) live at a low metabolic rate
12. The fourth paragraph of the passage primarily discuss  
(A) the reproduction of sea cucumbers (B) the food sources of sea cucumbers  
(C) the eating habits of sea cucumbers (D) threats to sea cucumbers' existence
13. The phrase "casts off" in line 24 is closest in meaning to  
(A) grows again (B) grabs  
(C) gets rid of (D) uses as a weapon
14. Of all the characteristics of the sea cucumber, which of the following seems to fascinate the author most?  
(A) What it does when threatened (B) Where it lives  
(C) How it hides from predators (D) What it eats
15. Compared with other sea creatures the sea cucumber is very  
(A) dangerous (B) intelligent (C) strange (D) fat
16. What can be inferred about the defense mechanisms of the sea cucumber?  
(A) They are very sensitive to surrounding stimuli.  
(B) They are almost useless.  
(C) They require group cooperation.  
(D) They are similar to those of most sea creatures.
17. Which of the following would NOT cause a sea cucumber to release its internal organs into the water?  
(A) A touch (B) Food  
(C) Unusually warm water (D) Pollution
18. Which of the following is an example of behavior comparable with the sea cucumber living at a low metabolic rate?  
(A) An octopus defending itself with its tentacles  
(B) A bear hibernating in the wintering  
(C) A pig eating constantly  
(D) A parasite living on its host's blood

### Questions 19-29

- A fold culture is small, isolated, cohesive, conservative, nearly self-sufficient group that is homogeneous in custom and race, with a strong family or clan structure and highly developed rituals. Order is maintained through sanctions based in the religion or family, and interpersonal relationships are strong. Tradition is paramount, and change comes infrequently and slowly. There is relatively little division of labor into specialized duties. Rather, each person is expected to perform a great variety of tasks, though duties may differ between the sexes. Most goods are handmade, and a subsistence economy prevails. Individualism is weakly developed in folk cultures, as are social classes. Unaltered folk cultures no longer exist in industrialized countries
- (5) such as the United States and Canada. Perhaps the nearest modern equivalent in Anglo-
- (10) -America is the Amish, a German American farming sect that largely renounces the products and labor saving devices of the industrial age. In Amish areas, horse-drawn buggies till serve as a local transportation device, and the faithful are not permitted to own automobiles. The Amish's central religious concept of Demut, "humility", clearly
- (15) reflects the weakness of individualism and social class so typical of folk cultures, and there is a corresponding strength of Amish group identity. Rarely do the Amish marry outside their sect. The religion, a variety of the Mennonite faith, provides the principal mechanism for maintaining order.

- By contrast, a popular culture is a large heterogeneous group, often highly
- (20) individualistic and constantly changing. Relationships tend to be impersonal, and a pronounced division of labor exists, leading to the establishment of many specialized professions. Secular institutions, of control such as the police and army take the place of religion and family in maintaining order, and a money-based economy prevails. Because of these contrasts, "popular" may be viewed as clearly different from "folk".
- (25) The popular is replacing the folk in industrialized countries and in many developing nations, Folk-made objects give way to their popular equivalent, usually because the popular item is more quickly or cheaply produced, is easier or time saving to use, or lends more prestige to the owner.

19. What does the passage mainly discuss?
- (A) Two decades in modern society  
 (B) The influence of industrial technology  
 (C) The characteristics of "folk" and "popular" societies  
 (D) The specialization of labor in Canada and the United States
20. The word "homogeneous" in line 2 is closest in meaning to
- (A) uniform                      (B) general                      (C) primitive                      (D) traditional
21. Which of the following is typical of folk cultures?
- (A) There is a money-based economy.  
 (B) Social change occurs slowly.  
 (C) Contact with other cultures is encouraged.  
 (D) Each person develops one specialized skill.
22. What does the author imply about the United States and Canada?
- (A) They value folk cultures.                      (B) They have no social classes.  
 (C) They have popular cultures.                      (D) They do not value individualism.
23. The phrase "largely renounces" in line 11 is closest in meaning to
- (A) generally rejects                      (B) greatly modifies  
 (C) loudly declares                      (D) often criticizes
24. What is the main source of order in Amish society?
- (A) The government                      (B) The economy  
 (C) The clan structure                      (D) The religion
25. Which of the following statements about Amish beliefs does the passages support?
- (A) A variety of religious practices is tolerated.  
 (B) Individualism and competition are important.  
 (C) Premodern technology is preferred.  
 (D) People are defined according to their class.
26. Which of the following would probably NOT be found in a folk culture?
- (A) A carpenter                      (B) A farmer                      (C) A weaver                      (D) A banker
27. The word "prevails" in line 23 is closest in meaning to
- (A) dominates                      (B) provides                      (C) develops                      (D) invests
28. The word "their" in line 26 refers to
- (A) folk                      (B) nations                      (C) countries                      (D) objects
29. Which of following is NOT given as a reason why folk-made objects are replaced by mass-produced objects?
- (A) Cost                      (B) Prestige                      (C) Quality                      (D) Convenience

**Questions 30-40**

Many of the most damaging and life-threatening types of weather—torrential rains, severe thunderstorms, and tornadoes—begin quickly, strike suddenly, and dissipate rapidly, devastating small regions while leaving neighboring areas untouched. One such event, a tornado, struck the northeastern section of Edmonton, Alberta, in July 1987.

- (5) Total damages from the tornado exceeded \$ 250 million, the highest ever for any Canadian storm. Conventional computer models of the atmosphere have limited value in predicting short-live local storms like the Edmonton tornado, because the available weather data are generally not detailed enough to allow computers to discern the subtle atmospheric changes that precede these storms. In most nations, for example, weatherballoon
- (10) observations are taken just once every twelve hours at locations typically separated by hundreds of miles. With such limited data, conventional forecasting models do a much better job predicting general weather conditions over large regions than they do forecasting specific local events.

Until recently, the observation-intensive approach needed for accurate, very shortrange

(15) forecasts, or "Nowcasts", was not feasible. The cost of equipping and operating many thousands of conventional weather stations was prohibitively high, and the difficulties involved in rapidly collecting and processing the raw weather data from such a network were insurmountable. Fortunately, scientific and technological advances have overcome most of these problems. Radar systems, automated weather

(20) instruments, and satellites are all capable of making detailed, nearly continuous observation over large regions at a relatively low cost. Communications satellites can transmit data around the world cheaply and instantaneously, and modern computers can quickly compile and analyzing this large volume of weather information. Meteorologists and computer scientists now work together to design computer programs and video

(25) equipment capable of transforming raw weather data into words, symbols, and vivid graphic displays that forecasters can interpret easily and quickly. As meteorologists have begun using these new technologies in weather forecasting offices, Nowcasting is becoming a reality.

- 30.** What does the passage mainly discuss?  
(A) Computers and weather (B) Dangerous storms  
(C) Weather forecasting (D) Satellites
- 31.** Why does the author mention the tornado in Edmonton, Canada?  
(A) To indicate that tornadoes are common in the summer  
(B) To give an example of a damaging storm  
(C) To explain different types of weather  
(D) To show that tornadoes occur frequently in Canada
- 32.** The word "subtle" in line 8 is closest in meaning to  
(A) complex (B) regular (C) imagined (D) slight
- 33.** Why does the author state in line 10 that observations are taken "just once every twelve hours"?  
(A) To indicate that the observations are timely  
(B) To show why the observations are of limited value  
(C) To compare data from balloons and computers  
(D) To give an example of international cooperation

34. The word "they" in line 13 refers to  
 (A) models (B) conditions (C) regions (D) events
35. Which of the following is NOT mentioned as an advance in short-range weather forecasting?  
 (A) Weather balloons (B) Radar systems  
 (C) Automated instruments (D) Satellites
36. The word "compile" in line 23 is closest in meaning to  
 (A) put together (B) look up (C) pile high (D) work over
37. With Nowcasting, it first became possible to provide information about  
 (A) short-lived local storms (B) radar networks  
 (C) long-range weather forecasts (D) general weather conditions
38. The word "raw" in line 25 is closest in meaning to  
 (A) stormy (B) inaccurate (C) uncooked (D) unprocessed
39. With which of the following statements is the author most likely to agree?  
 (A) Communications satellites can predict severe weather.  
 (B) Meteorologists should standardize computer programs.  
 (C) The observation-intensive approach is no longer useful.  
 (D) Weather predictions are becoming more accurate.
40. Which of the following would best illustrate Nowcasting?  
 (A) A five-day forecast  
 (B) A warning about a severe thunderstorm on the radio.  
 (C) The average rainfall for each month  
 (D) A list of temperatures in major cities

### Questions 41-50

People in the United States in the nineteenth-century were haunted by the prospect that unprecedented change in the nation's economy would bring social chaos. In the years following 1820, after several decades of relative stability, the economy entered a  
*Line* period of sustained and extremely rapid growth that continued to the end of the  
 (5) nineteenth century. Accompanying that growth was a structural change that featured increasing economic diversification and a gradual shift in the nation's labor force from agriculture to manufacturing and other nonagricultural pursuits.

Although the birth rate continued to decline from its high level of the eighteenth and early nineteenth century, the population roughly doubled every generation during the rest  
 (10) of the nineteenth centuries. As the population grew, its makeup also changed. Massive waves of immigration brought new ethnic groups into the country. Geographic and social mobility—downward as well as upward—touched almost everyone. Local studies indicate that nearly three-quarters of the population—in the north and South, in the emerging cities of the northeast, and in the restless rural countries of the  
 (15) West—changed their residence each decade. As a consequence, historian David Donald has written, "Social atomization affected every segment of society", and it seemed to many people that "all the recognized values of orderly civilization were gradually being eroded".

Rapid industrialization and increased geographic mobility in the nineteenth century  
 (20) had special implications for women because these changes tended to magnify social

distinctions. As the roles men and women played in society became more rigidly defined, so did the roles they played in the home. In the context of extreme competitiveness and dizzying social change, the household lost many of its earlier functions and the home came to serve as a haven of tranquility and order. As the size (25) of families decreased, the roles of husband and wife became more clearly differentiated than ever before. In the middle class especially, men participated in the productive economy while women ruled the home and served as the custodians, of civility and culture. The intimacy of marriage that was common in earlier periods was rent, and a gulf that at times seemed unbridgeable was created between husbands and wives.

41. What does the passage mainly discuss?  
(A) The economic development of the United States in the eighteenth century  
(B) Ways in which economic development led to social changes in the United States  
(C) Population growth in the western United States  
(D) The increasing availability of industrial jobs for women in the United States
42. The word "Prospect" in line 1 is closest in meaning to  
(A) regret (B) possibility (C) theory (D) circumstance
43. According to the passage, the economy of the United States between 1820 and 1900 was  
(A) expanding (B) in sharp decline (C) stagnate (D) disorganized
44. The word "roughly" in line 9 is closest in meaning to  
(A) harshly (B) surprisingly (C) slowly (D) approximately
45. The word "its" in line 10 refers to  
(A) century (B) population (C) generation (D) birth rate
46. According to the passage, as the nineteenth century progressed, the people of the United States  
(A) emigrated to other countries  
(B) often settled in the West  
(C) tended to change the place in which they lived  
(D) had a higher rate of birth than ever before
47. Which of the following best describes the society about which David Donald wrote?  
(A) A highly conservative society that was resistant to new ideas  
(B) A society that was undergoing fundamental change  
(C) A society that had been gradually changing since the early 1700's  
(D) A nomadic society that was starting permanent settlements
48. The word "magnify" in line 20 is closest in meaning to  
(A) solve (B) explain (C) analyze (D) increase
49. Which of the following is NOT mentioned as an example of the social changes occurring in the United States after 1820?  
(A) Increased social mobility (B) Increased immigration  
(C) Significant movement of population (D) Strong emphasis on traditional social values
50. The word "distinctions" in line 21 is closest in meaning to  
(A) differences (B) classes  
(C) accomplishments (D) characteristics



# PRACTICE TEST 34

## May 1996

### Question 1-12

Orchids are unique in having the most highly developed of all blossoms, in which the usual male and female reproductive organs are fused in a single structure called the column. The column is designed so that a single pollination will fertilize hundreds of thousands, and in some cases millions, of seeds, so microscopic and light they are easily carried by the breeze. Surrounding the column are three sepals and three petals, sometimes easily recognizable as such, often distorted into gorgeous, weird, but always functional shapes. The most noticeable of the petals is called the labellum, or lip. It is often dramatically marked as an unmistakable landing strip to attract the specific insect the orchid has chosen as its pollinator.

To lure their pollinators from afar, orchids use appropriately intriguing shapes, colors, and scents. At least 50 different aromatic compounds have been analyzed in the orchid family, each blended to attract one, or at most a few, species of insects or birds. Some orchids even change their scents to interest different insects at different times. Once the right insect has been attracted, some orchids present all sorts of one-way obstacle courses to make sure it does not leave until pollen has been accurately placed or removed. By such ingenious adaptations to specific pollinators, orchids have avoided the hazards of rampant crossbreeding in the wild, assuring the survival of species as discrete identities. At the same time they have made themselves irresistible to collectors.

1. What does the passage mainly discuss?  
(A) Birds (B) Insects (C) Flowers (D) Perfume
2. The orchid is unique because of  
(A) the habitat in which it lives  
(B) the structure of its blossom  
(C) the variety of products that can be made from it  
(D) the length of its life
3. The word "fused" in line 2 is closest in meaning to  
(A) combined (B) hidden (C) fertilized (D) produced
4. How many orchid seeds are typically pollinated at one time?  
(A) 200 (B) 2,000 (C) 20,000 (D) 200,000
5. Which of the following is a kind of petal?  
(A) The column (B) The sepal (C) The stem (D) The labellum
6. The labellum (line 7) is most comparable to  
(A) a microscope (B) an obstacle course  
(C) an airport runway (D) a racetrack
7. The word "lure" in line 10 is closest in meaning to  
(A) attract (B) recognize (C) follow (D) help
8. Which of the following is NOT mentioned as a means by which an orchid attracts insects?  
(A) Size (B) Shape (C) Color (D) Perfume
9. The word "their" in line 13 refers to

- (A) orchids                      (B) birds                      (C) insects                      (D) species

10. Which of the following statements about orchids scents does the passage support?

- (A) They are effective only when an insect is near the blossom.  
(B) Harmful insects are repelled by them.  
(C) They are difficult to tell apart.  
(D) They may change at different times.

11. The word "placed" in line 15 is closest in meaning to

- (A) estimated                      (B) measured                      (C) deposited                      (D) identified

12. The word "discrete" in line 18 is closest in meaning to

- (A) complicated                      (B) separate                      (C) inoffensive                      (D) functional

**Question 13-22**

One of the most important social developments that helped to make possible a shift in thinking about the role of public education was the effect of the baby boom of the 1950's and 1960's on the schools. In the 1920's, but especially in the Depression conditions of the 1930's, the United States experienced a declining birth rate -every thousand women aged fifteen to forty-four gave birth to about 118 live children in 1920, 89.2 in 1930, 75.8 in 1936, and 80 in 1940. With the growing prosperity brought on by the Second World War and the economic boom that followed it, young people married and established households earlier and began to raise larger families than had their predecessors during the Depression. Birth rates rose to 102 per thousand in 1946, 106.2 in 1950, and 118 in 1955. Although economics was probably the most important determinant, it is not the only explanation for the baby boom. The increased value placed on the idea of the family also helps to explain this rise in birth rates. The baby boomers began streaming into the first grade by the mid-1940's and became a flood by 1950. The public school system suddenly found itself overtaxed. While the number of schoolchildren rose because of wartime and postwar conditions, these same conditions made the schools even less prepared to cope with the flood. The wartime economy meant that few new schools were built between 1940 and 1945. Moreover, during the war and in the boom times that followed, large numbers of teachers left their profession for better-paying jobs elsewhere in the economy.

Therefore, in the 1950's and 1960's, the baby boom hit an antiquated and inadequate school system. Consequently, the "custodial rhetoric" of the 1930's and early 1940's no longer made sense; that is, keeping youths aged sixteen and older out of the labor market by keeping them in school could no longer be a high priority for an institution unable to find space and staff to teach younger children aged five to sixteen. With the baby boom, the focus of educators and of laymen interested in education inevitably turned toward the lower grades and back to basic academic skills and discipline. The system no longer had much interest in offering nontraditional, new, and extra services to older youths.

13. What does the passage mainly discuss?

- (A) The teaching profession during the baby boom  
(B) Birth rates in the United States in the 1930's and 1940  
(C) The impact of the baby boom on public education  
(D) The role of the family in the 1950's and 1960's

14. The word "it" in line 11 refers to

- (A) 1955                      (B) economics                      (C) the baby boom                      (D) value

15. The word "overtaxed" in line 14 is closest in meaning to  
 (A) well prepared (B) plentifully supplied  
 (C) heavily burdened (D) charged too much
16. The public school of the 1950's and 1960's faced all of the following problems EXCEPT  
 (A) a declining number of students (B) old-fashioned facilities  
 (C) a shortage of teachers (D) an inadequate number of school buildings
17. According to the passage, why did teachers leave the teaching profession after the outbreak of the war?  
 (A) They needed to be retrained (B) They were dissatisfied with the curriculum.  
 (C) Other jobs provided higher salaries. (D) Teaching positions were scarce.
18. The word "inadequate" in line 20 is closest in meaning to  
 (A) deficient (B) expanded (C) innovative (D) specialized
19. The "custodial rhetoric" mentioned in line 21 refers to  
 (A) raising a family (B) keeping older individuals in school  
 (C) running an orderly household (D) maintaining discipline in the classroom
20. The word "inevitably" in line 25 is closest in meaning to  
 (A) unwillingly (B) impartially (C) irrationally (D) unavoidably
21. Where in the passage does the author refer to the attitude of Americans toward raising a family in the 1950's and 1960's?  
 (A) Lines 1-3 (B) Lines 11-12 (C) Lines 20-21 (D) Lines 24-26
22. Which of the following best characterizes the organization of the passage?  
 (A) The second paragraph presents the effect of circumstances described in the first paragraph.  
 (B) The second paragraph provides a fictional account to illustrate a problem presented in the first paragraph.  
 (C) The second paragraph argues against a point made in the first paragraph.  
 (D) The second paragraph introduces a problem not mentioned in the first paragraph.

### Questions 23-32

Nineteenth-century writers in the United States, whether they wrote novels, short stories, poems, or plays, were powerfully drawn to the railroad in its golden year. In fact, writers responded to the railroads as soon as the first were built in the 1830's. By the 1850's, the railroad was a major presence in the life of the nation. Writers such as

(5) Ralph Waldo Emerson and Henry David Thoreau saw the railroad both as a boon to democracy and as an object of suspicion. The railroad could be and was a despoiler of nature; furthermore, in its manifestation of speed and noise, it might be a despoiler of human nature as well. By the 1850's and 1860's, there was a great distrust among writers and intellectuals of the rapid industrialization of which the railroad was a leading force.

(10) Deeply philosophical historians such as Henry Adams lamented the role that the new frenzy for business was playing in eroding traditional values. A distrust of industry and business continued among writers throughout the rest of the nineteenth century and into the twentieth.

For the most part, the literature in which the railroad plays an important role belongs

(15) to popular culture rather than to the realm of serious art. One thinks of melodramas, boys' books, thrillers, romances, and the like rather than novels of the first rank. In the

- railroads' prime years, between 1890 and 1920, there were a few individuals in the United States, most of them with solid railroading experience behind them, who made a profession of writing about railroading—works offering the ambience of stations, yards, and locomotive cabs. These writers, who can genuinely be said to have created a genre, the "railroad novel," are now mostly forgotten, their names having faded from memory. But anyone who takes the time to consult their fertile writings will still find a treasure trove of information about the place of the railroad in the life of the United States.
20. With which of the following topics is the passage mainly concerned?  
(A) The role of the railroad in the economy of the United States.  
(B) Major nineteenth-century writers.  
(C) The conflict between expanding industry and preserving nature.  
(D) The railroad as a subject for literature.
23. The word "it" in line 7 refers to  
(A) railroad (B) manifestation (C) speed (D) nature
24. In the first paragraph, the author implies that writers' reactions to the development of railroads were  
(A) highly enthusiastic (B) both positive and negative  
(C) unchanging (D) disinterested
25. The word "lamented" in line 10 is closest in meaning to  
(A) complained about (B) analyzed (C) explained (D) reflected on
26. According to the passage, the railroad played a significant role in literature in all of the following kinds of books EXCEPT  
(A) thrillers (B) boys' books (C) important novels (D) romances
27. The phrase "first rank" in line 16 is closest in meaning to  
(A) largest category (B) highest quality  
(C) earliest writers (D) most difficult language
28. The word "them" in line 18 refers to  
(A) novels (B) years (C) individuals (D) works
29. The author mentions all of the following as being true about the literature of railroads EXCEPT that  
(A) many of its writers had experience working on railroads  
(B) many of the books were set in railroad stations and yards  
(C) the books were well known during the railroads' prime years.  
(D) quite a few of the books are still popular today.
30. The words "faded from" in line 21 are closest in meaning to  
(A) grew in (B) disappeared from  
(C) remained in (D) developed from
31. What is the author's attitude toward the "railroad novels" and other books about railroads written between 1890 and 1920?  
(A) They have as much literary importance as the books written by Emerson, Thoreau, and Adams.  
(B) They are good examples of the effects industry and business had on the literature of the United States.  
(C) They contributed to the weakening of traditional values.  
(D) They are worth reading as sources of knowledge about the impact of railroads on life in the United States.

### Questions 33-44

By the 1820's in the United States, when steamboats were common on western waters, these boats were mostly powered by engines built in the West (Pittsburgh, Cincinnati, or Louisville), and of a distinctive western design specially suited to western needs. The first steam engines in practical use in England and the United States were of low-pressure design. This was the type first developed by James Watt, then manufactured by the firm of Boulton and Watt, and long the standard industrial engine. Steam was accumulated in a large, double-acting vertical cylinder, but the steam reached only a few pounds of pressure per square inch. It was low-pressure engines of this type that were first introduced into the United States by Robert Fulton. He imported such a Boulton and Watt engine from England to run the Clermont. But this type of engine was expensive and complicated, requiring many precision-fitted moving parts.

The engine that became standard on western steamboats was of a different and novel design. It was the work primarily of an unsung hero of American industrial progress, Oliver Evans(1755-1819). The self-educated son of a Delaware farmer. Evans early became obsessed by the possibilities of mechanized production and steam power. As early as 1802 he was using a stationary steam engine of high-pressure design in his mill. Engines of this type were not unknown, but before Evans they were generally considered impractical and dangerous.

Within a decade the high-pressure engine, the new type, had become standard on western waters. Critics ignorant of western conditions often attacked it as wasteful and dangerous. But people who really knew the Ohio, the Missouri, and the Mississippi insisted, with good reasons, that it was the only engine for them. In shallow western rivers the weight of vessel and engine was important; a heavy engine added to the problem of navigation. The high-pressure engine was far lighter in proportion to horsepower, and with less than half as many moving parts, was much easier and cheaper to repair. The main advantages of low-pressure engines were safe operation and economy of fuel consumption, neither of which meant much in the West.

33. What is the passage mainly about?

- (A) Steamboat engines in the western United States
- (B) River travel in the western United States
- (C) A famous United States inventor
- (D) The world's first practical steamboat

34. What was the Clermont (line 10)?

- (A) A river
- (B) A factory
- (C) A boat
- (D) An engine

35. Who developed the kind of steam engine used on western steamboats?

- (A) Watt
- (B) Boulton
- (C) Fulton
- (D) Evans

36. The word "novel" in line 14 is closest in meaning to

- (A) fictional
- (B) intricate
- (C) innovative
- (D) powerful

37. What opinion of Evans is suggested by the use of the term "unsung hero" in line 14?

- (A) More people should recognize the importance of his work .

- (B) More of his inventions should be used today.
- (C) He should be credited with inventing the steam engine.
- (D) More should be learned about his early life.

**38.** What does the author imply about Evans?

- (A) He went to England to learn about steam power.
- (B) He worked for Fulton.
- (C) He traveled extensively in the West.
- (D) He taught himself about steam engines.

**39.** The word "stationary" in line 17 is closest in meaning to

- (A) single
- (B) fixed
- (C) locomotive
- (D) modified

**40.** The word "they" in line 18 refers to

- (A) engines
- (B) mechanized production and steam power
- (C) possibilities
- (D) steamboats

**41.** What does the author imply about the western rivers?

- (A) It was difficult to find fuel near them.
- (B) They flooded frequently.
- (C) They were difficult to navigate.
- (D) They were rarely used for transportation.

**42.** The word "it" in line 23 refers to

- (A) decade
- (B) high-pressure engine
- (C) weight
- (D) problem

**43.** The word "vessel" in line 24 is closest in meaning to

- (A) fuel
- (B) crew
- (C) cargo
- (D) craft

**44.** Which of the following points was made by the critics of high-pressure engines?

- (A) They are expensive to import.
- (B) They are not powerful enough for western waters.
- (C) They are dangerous.
- (D) They weigh too much.

### **Questions 45-50**

Volcanic fire and glacial ice are natural enemies. Eruptions at glaciated volcanoes typically destroy ice fields, as they did in 1980 when 70 percent of Mount Saint Helens ice cover was demolished. During long dormant intervals, glaciers gain the upper hand cutting deeply into volcanic cones and eventually reducing them to rubble. Only rarely do these competing forces of heat and cold operate in perfect balance to create a phenomenon such as the steam caves at Mount Rainier National Park.

Line  
(5)

Located inside Rainier's two ice-filled summit craters, these caves form a labyrinth of tunnels and vaulted chambers about one and one-half miles in total length. Their creation depends on an unusual combination of factors that nature almost never brings together in one place. The cave-making recipe calls for a steady emission of volcanic gas and heat, a heavy annual snowfall at an elevation high enough to keep it from melting during the summer, and a bowl-shaped crater to hold the snow.

(10)

Snow accumulating yearly in Rainier's summit craters is compacted and compressed into a dense form of ice called firn, a substance midway between ordinary ice and the denser crystalline ice that makes up glaciers. Heat rising from numerous openings (called

(15)

fumaroles) along the inner crater walls melts out chambers between the rocky walls and the overlying ice pack. Circulating currents of warm air then melt additional opening in the firm ice, eventually connecting the individual chambers and, in the larger of Rainier's two craters, forming a continuous passageway that extends two-thirds of the way around the crater's interior.

(20)

To maintain the cave system, the elements of fire under ice must remain in equilibrium. Enough snow must fill the crater each year to replace that melted from below. If too much volcanic heat is discharged, the crater's ice pack will melt away entirely and the caves will vanish along with the snow of yesteryear. If too little heat is produced, the ice, replenished annually by winter snowstorms, will expand, pushing against the enclosing crater walls and smothering the present caverns in solid firm ice.

(25)

45. With what topic is the passage primarily concerned?

- (A) The importance of snowfall for Mount Rainier.
- (B) The steam caves of Mount Rainier.
- (C) how ice covers are destroyed .
- (D) The eruption of Mount Saint Helens in 1980.

46. The word "they" in line 2 refers to

- (A) fields
- (B) intervals
- (C) eruptions
- (D) enemies

47. According to the passage long periods of volcanic inactivity can lead to a volcanic cone's

- (A) strongest eruption
- (B) sudden growth
- (C) destruction
- (D) unpredictability

48. The second paragraph mentions all of the following as necessary elements in the creation of steam caves EXCEPT

- (A) a glacier
- (B) a crater
- (C) heat
- (D) snow

49. According to the passage, heat from Mount Rainier's summit craters rises from

- (A) crystalline ice
- (B) firns
- (C) chambers
- (D) fumaroles

50. In line 26 "smothering" the caverns means that they would be

- (A) eliminated
- (B) enlarged
- (C) prevented
- (D) hollowed

# PRACTICE TEST 35

## August 1996

### Question 1-10

The word laser was coined as an acronym for Light Amplification by the Stimulated Emission of Radiation. Ordinary light, from the Sun or a light bulb, is emitted spontaneously, when atoms or molecules get rid of excess energy by themselves, without any outside intervention. Stimulated emission is different because it occurs when an atom or molecule holding onto excess energy has been stimulated to emit it as light. Albert Einstein was the first to suggest the existence of stimulated emission in a paper published in 1917. However, for many years physicists thought that atoms and molecules always were much more likely to emit light spontaneously and that stimulated emission thus always would be much weaker. It was not until after the Second World War that physicists began trying to make stimulated emission dominate. They sought ways by which one atom or molecule could stimulate many other to emit light , amplifying it to much higher powers.

The first to succeed was Charles H. Townes, then at Columbia University in New York . Instead of working with light, however, he worked with microwaves, which have a much longer wavelength, and built a device he called a "maser" for Microwave Amplification by the Stimulated Emission of Radiation. Although he thought of the key idea in 1951, the first maser was not completed until a couple of years later. Before long, many other physicists were building masers and trying to discover how to produce stimulated emission at even shorter wavelength.

The key concepts emerged about 1957. Townes and Arthur Schawlow, then at Bell Telephone Laboratories, wrote a long paper outlining the conditions needed to amplify stimulated emission of visible light waves. At about the same time, similar ideas crystallized in the mind of Gordon Gould, then a 37-year-old graduate student at Columbia, who wrote them down in a series of notebooks. Townes and Schawlow published their ideas in a scientific journal, Physical Review Letter, but Gould filed a patent application. Three decades later, people still argue about who deserves the credit for the concept of the laser.

1. The word "coin" in line 1 could be replaced by  
(A) created                      (B) mentioned                      (C) understood                      (D) discovered
2. The word "intervention" in line 4 can best be replaced by  
(A) need                      (B) device                      (C) influence                      (D) source
3. The word "it" in line 5 refers to  
(A) light bulb                      (B) energy                      (C) molecule                      (D) atom
4. Which of the following statements best describes a laser?  
(A) A device for stimulating atoms and molecules to emit light  
(B) An atom in a high-energy state  
(C) A technique for destroying atoms or molecules  
(D) An instrument for measuring light waves
5. Why was Towne's early work with stimulated emission done with microwaves?  
(A) He was not concerned with light amplification  
(B) It was easier to work with longer wavelengths.  
(C) His partner Schawlow had already begun work on the laser.



- (D) The laser had already been developed
6. In his research at Columbia University, Charles Townes worked with all of the following EXCEPT  
 (A) stimulated emission (B) microwaves  
 (C) light amplification (D) a maser
7. In approximately what year was the first maser built?  
 (A) 1917 (B) 1951 (C) 1953 (D) 1957
8. The word "emerged" in line 20 is closest in meaning to  
 (A) increased (B) concluded (C) succeeded (D) appeared
9. The word "outlining" in line 21 is closest in meaning to  
 (A) assigning (B) studying (C) checking (D) summarizing
10. Why do people still argue about who deserves the credit for the concept of the laser?  
 (A) The researchers' notebooks were lost.  
 (B) Several people were developing the idea at the same time.  
 (C) No one claimed credit for the development until recently.  
 (D) The work is still incomplete.

### Question 11-21

Panel painting, common in thirteenth -and fourteenth -century Europe, involved a painstaking, laborious process. Wooden planks were joined, covered with gesso to prepare the surface for painting, and then polished smooth with special tools. On this perfect surface, the artist would sketch a composition with chalk, refine it with inks, and then begin the deliberate process of applying thin layers of egg tempera paint (egg yolk in which pigments are suspended) with small brushes. The successive layering of these meticulously applied paints produced the final, translucent colors.

Backgrounds of gold were made by carefully applying sheets of gold leaf, and then embellishing or decorating the gold leaf by punching it with a metal rod on which a pattern had been embossed. Every step in the process was slow and deliberate. The quick-drying tempera demanded that the artist know exactly where each stroke be placed before the brush met the panel, and it required the use of fine brushes. It was, therefore, an ideal technique for emphasizing the hard linear edges and pure, fine areas of color that were so much a part of the overall aesthetic of the time. The notion that an artist could or would dash off an idea in a fit of spontaneous inspiration was completely alien to these deliberately produced works.

Furthermore, making these paintings was so time-consuming that it demanded assistance. All such work was done by collective enterprise in the workshops. The painter or master who is credited with having created painting may have designed the work and overseen its production, but it is highly unlikely that the artist's hand applied every stroke of the brush. More likely, numerous assistants, who had been trained to imitate the artist's style, applied the paint. The carpenter's shop probably provided the frame and perhaps supplied the panel, and yet another shop supplied the gold. Thus, not only many hands, but also many shops were involved in the final product.

In spite of problems with their condition, restoration, and preservation many panel paintings have survived, and today many of them are housed in museum collections.

11. What aspect of panel paintings does the passage mainly discuss?

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- (A) Famous examples  
(C) Restoration
- (B) Different styles  
(D) Production
12. According to the passage, what does the first step in making a panel painting ?  
(A) Mixing the paint  
(C) Buying the gold leaf
- (B) Preparing the panel  
(D) Making ink drawings
13. The word "it" in line 4 refers to .  
(A) chalk  
(B) composition  
(C) artist  
(D) surface
14. The word "deliberate" in line 5 is closest in meaning to  
(A) decisive  
(B) careful  
(C) natural  
(D) unusual
15. Which of the following processes produced the translucent colors found on panel paintings?  
(A) Joining wooden planks to form large sheets  
(B) Polishing the gesso  
(C) Applying many layers of paint  
(D) Covering the background with gold leaf
16. What characteristic of tempera paint is mentioned in the passage ?  
(A) It dries quickly  
(C) It dissolves easily
- (B) It is difficult to make  
(D) It has to be applied directly to wood
17. The word "demanded" in line 17 is closest in meaning to  
(A) ordered  
(B) reported  
(C) required  
(D) questioned
18. The "collective enterprise" mentioned in line 18 includes all of the following EXCEPT  
(A) supplying the gold leaf  
(C) applying the paint
- (B) building the panels  
(D) selling the painting
19. The word "imitate" in line 22 is closest in meaning to  
(A) copy  
(B) illustrate  
(C) promote  
(D) believe in
20. The author mentions all of the following as problems with the survival of panel painting EXCEPT  
(A) condition  
(B) theft  
(C) preservation  
(D) restoration
21. The word "them" in line 27 refers to  
(A) problems  
(C) panel paintings
- (B) condition, restoration, preservation  
(D) museum collections

**Question 22-32**

Crows are probably the most frequently met and easily identifiable members of the native fauna of the United States. The great number of tales, legends, and myths about these birds indicates that people have been exceptionally interested in them for a long

- Line* time. On the other hand, when it comes to substantive -- particularly behavioral --  
(5) information, crows are less well known than many comparably common species and, for that matter, not a few quite uncommon ones: the endangered California condor, to cite one obvious example. There are practical reasons for this.

- Crows are notoriously poor and aggravating subjects for field research. Keen observers and quick learners, they are astute about the intentions of other creatures, including researchers, and adept at avoiding them. Because they are so numerous, active, and monochromatic, it is difficult to distinguish one crow from another. Bands, radio transmitters, or other identifying devices can be attached to them, but this of  
(11) course requires catching live crows, who are among the wariest and most untrappable

of birds.

- (15) Technical difficulties aside, crow research is daunting because the ways of these birds are so complex and various. As preeminent generalists, members of this species ingeniously exploit a great range of habitats and resources, and they can quickly adjust to changes in their circumstances. Being so educable, individual birds have markedly different interests and inclinations, strategies and skills. For example, one pet crow
- (20) learned how to let a dog out of its kennel by pulling the pin on the door. When the dog escaped, the bird went into the kennel and ate its food.
22. What is the main topic of the passage?
- (A) The ways in which crows differ from other common birds  
 (B) The myths and legends about crows  
 (C) The characteristics that make crows difficult to study  
 (D) The existing methods for investigating crow behavior
23. According to the first paragraph, what evidence is there that crows have interested people for a long time?
- (A) The large number of stories about crows.  
 (B) The frequency with which crows are sighted  
 (C) The amount of research that has been conducted on crows  
 (D) The ease with which crows are identified
24. The word "comparable" in line 5 is closest in meaning to
- (A) interestingly                      (B) similar                      (C) otherwise                      (D) sometimes
25. In line 6, the author mentions the endangered California condor as an example of a species that is
- (A) smaller than the crow                      (B) easily identifiable  
 (C) featured in legends                      (D) very rare
26. The word "them" in line 10 refers to
- (A) crows                      (B) subjects                      (C) intentions                      (D) researchers
27. According to the second paragraph, crows are poor subjects for field research for all of the following reasons EXCEPT
- (A) They can successfully avoid observers.                      B) They are hard to distinguish from one another  
 (C) They can be quite aggressive.                      D) They are difficult to catch.
28. In the second paragraph, the author implies that using radio transmitters would allow a researcher who studies crows to
- (A) identify individual crows  
 (B) follow flocks of crows over long distances  
 (C) record the times when crows are most active  
 (D) help crows that become sick or injured
29. According to the third paragraph, which of the following is true about crows?
- (A) They seldom live in any one place for very long.  
 (B) They thrive in a wide variety of environments.  
 (C) They have marked preferences for certain kinds of foods.  
 (D) They use up the resources in one area before moving to another.
30. In line 19, the word "inclinations" is closest in meaning to
- (A) tricks                      (B) opportunities                      (C) preferences                      (D) experiences
31. In lines 19-21, the author mentions a pet crow to illustrate which of the following?
- (A) The clever ways that crows solve problems

- (B) The differences between pet crows and wild crows
- (C) The ease with which crows can be tamed
- (D) The affection that crows show to other creatures

**32.** Which of the following statements is supported by the passage?

- (A) Crows have relatively long lives.
- (B) Crows have keen vision
- (C) Crows are usually solitary
- (D) Crows are very intelligent.

**Questions 33-41**

In the early days of the United States, postal charges were paid by the recipient and charges varied with the distance carried. In 1825, the United States Congress permitted local postmasters to give letters to mail carriers for home delivery, but these carriers  
*Line* received no government salary and their entire compensation depended on what they  
(5) were paid by the recipients of individual letters.

In 1847 the United States Post Office Department adopted the idea of a postage stamp, which of course simplified the payment for postal service but caused grumbling by those who did not like to prepay. Besides, the stamp covered only delivery to the post office and did not include carrying it to a private address. In Philadelphia, for example,  
(10) with a population of 150,000, people still had to go to the post office to get their mail. The confusion and congestion of individual citizens looking for their letters was itself enough to discourage use of the mail. It is no wonder that, during the years of these cumbersome arrangements, private letter-carrying and express businesses developed. Although their activities were only semilegal, they thrived, and actually advertised that  
(15) between Boston and Philadelphia they were a half-day speedier than the government mail. The government postal service lost volume to private competition and was not able to handle efficiently even the business it had.

Finally, in 1863, Congress provided that the mail carriers who delivered the mail from the post offices to private addresses should receive a government salary, and that  
(20) there should be no extra charge for that delivery. But this delivery service was at first confined to cities, and free home delivery became a mark of urbanism. As late as 1887, a town had to have 10,000 people to be eligible for free home delivery. In 1890, of the 75 million people in the United States, fewer than 20 million had mail delivered free to their doors. The rest, nearly three-quarters of the population, still received no mail unless they went to their post office.

**33.** What does the passage mainly discuss?

- (A) The increased use of private mail services
- (B) The development of a government postal system
- (C) A comparison of urban and rural postal services
- (D) The history of postage stamps.

**34.** The word "varied" in line 2 could best be replaced by

- (A) increased
- (B) differed
- (C) returned
- (D) started

**35.** Which of the following was seen as a disadvantage of the postage stamp?

- (A) It had to be purchased by the sender in advance.
- (B) It increased the cost of mail delivery.
- (C) It was difficult to affix to letters.
- (D) It was easy to counterfeit.

36. Why does the author mention the city of Philadelphia in line 9?  
 (A) It was the site of the first post office in the United States.  
 (B) Its postal service was inadequate for its population.  
 (C) It was the largest city in the United States in 1847.  
 (D) It was commemorated by the first United States postage stamp.
37. The word "cumbersome" in line 13 is closest in meaning to  
 (A) burdensome (B) handsome (C) loathsome (D) quarrelsome
38. The word "they" in line 15 refers to  
 (A) Boston and Philadelphia (B) businesses  
 (C) arrangements (D) letters
39. The private postal services of the nineteenth century claimed that they could do which of the following better than the government?  
 (A) Deliver a higher volume of mail. (B) Deliver mail more cheaply.  
 (C) Deliver mail faster. (D) Deliver mail to rural areas.
40. In 1863 the United States government began providing which of the following to mail carriers?  
 (A) A salary (B) Housing  
 (C) Transportation (D) Free postage stamps
41. The word "Confined" in line 21 is closest in meaning to  
 (A) granted (B) scheduled (C) limited (D) recommended

### Questions 43-50

Archaeology has long been an accepted tool for studying prehistoric cultures. Relatively recently the same techniques have been systematically applied to studies of the more immediate past. This has been called "historical archaeology," a term that is  
*Line* used in the United States to refer to any archaeological investigation into North  
 (5) American sites that postdate the arrival of Europeans.

Back in the 1930's and 1940's, when building restoration was popular, historical archaeology was primarily a tool of architectural reconstruction. The role of archaeologists was to find the foundations of historic buildings and then take a back seat to architects. The mania for reconstruction had largely subsided by 1950's. Most  
 (10) people entering historical archaeology during this period came out of university anthropology departments, where they had studied prehistoric cultures. They were, by training social scientists, not historians, and their work tended to reflect this bias. The questions they framed and the techniques they used were designed to help them understand, as scientists, how people behaved. But because they were treading on  
 (15) historical ground for which there was often extensive written documentation and because their own knowledge of these periods was usually limited, their contributions to American history remained circumscribed. Their reports, highly technical and sometimes poorly written, went unread.

More recently, professional archaeologists have taken over. These researchers have  
 (20) sought to demonstrate that their work can be a valuable tool not only of science but also of history, providing fresh insights into the daily lives of ordinary people whose existences might not otherwise be so well documented. This newer emphasis on archaeology as social history has shown great promise, and indeed work done in this area has led to a reinterpretation of the United States past.

- (25) In Kingston, New York, for example, evidence has uncovered that indicates that English goods were being smuggled into that city at a time when the Dutch supposedly controlled trading in the area. And in Sacramento an excavation at site of a fashionable nineteenth-century hotel revealed that garbage had been stashed in the building's basement despite sanitation laws to the contrary.
- 42.** What does the passage mainly discuss?  
(A) Why historical archaeology was first developed  
(B) How the methods and purpose of historical archaeology have changed  
(C) The contributions architects make to historical archaeology  
(D) The attitude of professional archaeologists toward historical archaeology
- 43.** According to the first paragraph, what is a relatively new focus in archaeology?  
(A) Investigating the recess past  
(B) Studying prehistoric cultures  
(C) Excavating ancient sites in what is now the United States.  
(D) Comparing ancient sites in what is now the United States.
- 44.** According to the passage, when had historical archaeologists been trained as anthropologists?  
(A) Prior to the 1930's  
(B) During the 1930's and 1940's  
(C) During the 1950's and 1960's  
(D) After the 1960's
- 45.** The word "framed" in line 13 is closest in meaning to  
(A) understood  
(B) read  
(C) avoided  
(D) posed
- 46.** In the third paragraph, the author implies that the techniques of history and the techniques of social science are  
(A) quite different from each other  
(B) equally useful in studying prehistoric cultures  
(C) usually taught to students of archaeology  
(D) both based on similar principles
- 47.** The phrase "their contributions" in line 16 refers to the contributions of  
(A) social scientists  
(B) prehistoric cultures  
(C) historians  
(D) documentation and knowledge
- 48.** The author mentions an excavation at the site of a hotel in Sacramento in order to give an example of  
(A) a building reconstruction project  
(B) the work of the earliest historical archaeologists  
(C) a finding that conflicts with written records  
(D) the kind of information that historians routinely examine
- 49.** The word "supposedly" in line 26 is closest in meaning to  
(A) ruthlessly  
(B) tightly  
(C) barely  
(D) seemingly
- 50.** The word "sanitation" in line 29 is closest in meaning to  
(A) city  
(B) housing  
(C) health  
(D) trade

# PRACTICE TEST 36

## October 1996

### Questions 1-8

When Jules Verne wrote *Journey to the Center of the Earth* in 1864, there were many conflicting theories about the nature of the Earth's interior. Some geologists thought that it contained a highly compressed ball of incandescent gas, while others  
*Line* suspected that it consisted of separate shells, each made of a different material. Today,  
(5) well over a century later, there is still little direct evidence of what lies beneath our feet. Most of our knowledge of the Earth's interior comes not from mines or boreholes, but from the study of seismic waves - powerful pulses of energy released by earthquakes. The way that seismic waves travel shows that the Earth's interior is far from uniform. The continents and the seabed are formed by the crust - a thin sphere of  
(10) relatively light, solid rock. Beneath the crust lies the mantle, a very different layer that extends approximately halfway to the Earth's center. There the rock is the subject of a battle between increasing heat and growing pressure.

In its high levels, the mantle is relatively cool; at greater depths, high temperatures make the rock behave more like a liquid than a solid. Deeper still, the pressure is even  
(15) more intense, preventing the rock from melting in spite of a higher temperature. Beyond a depth of around 2,900 kilometers, a great change takes place and the mantle gives way to the core. Some seismic waves cannot pass through the core and others are bent by it. From this and other evidence, geologists conclude that the outer core is probably liquid, with a solid center. It is almost certainly made of iron, mixed  
(20) with smaller amounts of other elements such as nickel.

The conditions in the Earth's core make it a far more alien world than space. Its solid iron heart is subjected to unimaginable pressure and has a temperature of about 9,000°F. Although scientists can speculate about its nature, neither humans nor machines will ever be able to visit it.

1. The word "conflicting" in line 2 is closest in meaning to  
(A) controlling (B) outdated (C) opposing (D) important
2. What is today's richest source of information about the Earth's interior for geologists?  
(A) Boreholes (B) Shells (C) Seismic waves (D) Mines
3. The word "There" in line 11 refers to the  
(A) mantle (B) crust (C) seabed (D) Earth's center.
4. Which of the following is a primary characteristic of the Earth's mantle?  
(A) Light, solid rock (B) Uniformity of composition  
(C) Dramatically increasing pressure (D) Compressed, incandescent gas
5. The phrase "gives way to" in line 17 is closest in meaning to  
(A) runs along (B) rubs against (C) turns into (D) floats on
6. The word "it" in line 18 refers to  
(A) mantle (B) core (C) change (D) depth
7. Why does the author state in line 22 that the Earth's core is "more alien" than space?  
(A) Government funds are not available to study the Earth's core.  
(B) Scientists aren't interested in the characteristics of the Earth's core.

- (C) It is impossible to go to the Earth's core to do research.
- (D) The Earth's core is made of elements that are dangerous to humans.

8. The word "speculate" in line 23 is closest in meaning to  
(A) report                      (B) learn                      (C) worry                      (D) hypothesize

**Question 9-20**

Despite the road improvements of the turnpike era (1790-1830), Americans continued as in colonial times to depend wherever possible on water routes for travel and transportation. The larger rivers, especially the Mississippi and the Ohio, became increasingly useful as steamboats grew in number and improved in design.

(5) River boats carried to New Orleans the corn and other crops of northwestern farmers, the cotton and tobacco of southwestern planters. From New Orleans, ships took the cargoes on to eastern seaports. Neither the farmers of the west nor the merchants of the east were completely satisfied with this pattern of trade. Farmers could get better prices for their crops if the alternative existed of sending them directly eastward to market and merchants could sell larger quantities of their manufactured goods if these could be transported more directly and more economically to the west. New waterways were needed. Sectional jealousies and constitutional scruples stood in the way of action by the federal government and necessary expenditures were too great for private enterprise. If extensive canals were to be dug, the job would be up to the various states.

(20) New York was the first to act. It had the natural advantage of a comparatively level route between the Hudson River and Lake Erie, through the only break in the entire Appalachian Mountain chain. Yet the engineering tasks were imposing. The distance was more than 350 miles and there were ridges to cross and a wilderness of woods and swamps to penetrate. The Erie Canal begun in 1817 and completed in 1825, was by far the greatest construction job that Americans had ever undertaken. It quickly proved a financial success as well. The prosperity of the Erie encouraged the state to enlarge its canal system by building several branches.

(25) The range of the New York canal system was still further extended when the states of Ohio and Indiana, inspired by the success of the Erie Canal, provided water connections between Lake Erie and the Ohio River.

9. What does the passage suggest was the principal route for transporting crops to the east prior in 1825?  
(A) River to road                      (B) Canal to river  
(C) River to ocean                      (D) Road to canal.

10. It can be inferred from the passage that shipping cargo east by way of New Orleans was  
(A) Advantageous for manufactures                      (B) Inexpensive for merchants  
(C) Not economical for farmers                      (D) Considered economical by the government

11. The word "alternative" in line 9 is closest in meaning to  
(A) option                      (B) transition                      (C) intention                      (D) authorization

12. The word "them" in line 9 refers to  
(A) crops                      (B) farmers                      (C) prices                      (D) merchants

13. Which of the following products would a northwestern farmer in the early nineteenth century be most likely to purchase from the east?  
(A) Grain                      (B) Vegetables                      (C) Textiles                      (D) Fruit.



14. According to the passage, where was the Erie Canal located?  
 (A) Between Ohio and Indiana. (B) Along the Appalachian Mountains  
 (C) Between Lake Erie and the Ohio River (D) Across New York State.
15. The word "imposing" in line 18 could best be replaced by  
 (A) impractical (B) successful (C) demanding (D) misleading
16. The word "penetrate" in line 20 is closest in meaning to  
 (A) cut down (B) go through (C) fill up (D) take over
17. The word "its" in line 22 refers to  
 (A) prosperity (B) Erie (C) System (D) State
18. The word "extended" in line 24 is closest in meaning to  
 (A) increased (B) constructed (C) deepened (D) measured
19. According to the passage, Indiana & Ohio supported the development of the New York canal system by  
 (A) helping to build the Erie Canal.  
 (B) Building branches to connect it with the Ohio River  
 (C) Providing much of the water for the Erie Canal.  
 (D) Contributing financially to the construction costs
20. What does the paragraph following the passage probably discuss?  
 (A) Industry on Lake Erie (B) Canals in Ohio and Indiana  
 (C) Sectional jealousies in Indiana and Ohio (D) Travel on the Erie Canal.

### Question 21-31

Legend has it that sometime toward the end of the Civil War (1861-1865) a government train carrying oxen traveling through the northern plains of eastern Wyoming was caught in a snowstorm and had to be abandoned. The driver returned the next spring to see what had become of his cargo. Instead of the skeletons he had  
*Line* expected to find, he saw his oxen, living, fat, and healthy. How had they survived?  
 (5) The answer lay in a resource that unknowing Americans lands trampled underfoot in their haste to cross the "Great American Desert" to reach lands that sometimes proved barren. In the eastern parts of the United States, the preferred grass for forage was a cultivated plant. It grew well with enough rain, then when cut and stored it would cure  
 (10) and become nourishing hay for winter feed. But in the dry grazing lands of the West that familiar bluejoint grass was often killed by drought. To raise cattle out there seemed risky or even hopeless.

Who could imagine a fairy-tale grass that required no rain and somehow made it possible for cattle to feed themselves all winter? But the surprising western wild  
 (15) grasses did just that. They had wonderfully convenient features that made them superior to the cultivated eastern grasses. Various known as buffalo grass, grama grass, or mesquite grass, not only were they immune to drought; but they were actually preserved by the lack of summer and autumn rains. They were not juicy like the cultivated eastern grasses, but had short, hard stems. And they did not need to be cured  
 (20) in a barn, but dried right where they grew on the ground. When they dried in this way, they remained naturally sweet and nourishing through the winter. Cattle left outdoors to fend for themselves thrived on this hay. And the cattle themselves helped plant the fresh grass year after year for they trampled the natural seeds firmly into the soil to be watered by the melting snows of winter and the occasional rains of spring. The dry  
 (25) summer air cured them much as storing in a barn cured the cultivated grasses.

21. What does the passage mainly discuss?  
(A) Western migration after the Civil War (B) The climate of the western United States  
(C) The raising of cattle. (D) A type of wild vegetation
22. What can be inferred by the phrase "Legend has it" in line 1?  
(A) The story of the train may not be completely factual.  
(B) Most history books include the story of the train.  
(C) The driver of the train invented the story.  
(D) The story of the train is similar to other ones from that time period.
23. The word "they" in line 5 refers to  
(A) plains (B) skeletons (C) oxen (D) Americans
24. What can be inferred about the "Great American Desert" mentioned in line 7?  
(A) It was not originally assumed to be a fertile area.  
(B) Many had settled there by the 1860's.  
(C) It was a popular place to raise cattle before the Civil War.  
(D) It was not discovered until the late 1800's.
25. The word "barren" in line 8 is closest in meaning to  
(A) lonely (B) dangerous (C) uncomfortable (D) infertile.
26. The word "preferred" in line 8 is closest in meaning to  
(A) ordinary (B) available (C) required (D) favored
27. Which of the following can be inferred about the cultivated grass mentioned in the second paragraph?  
(A) Cattle raised in the western United States refused to eat it.  
(B) It would probably not grow in the western United States.  
(C) It had to be imported into the United States.  
(D) It was difficult for cattle to digest.
28. Which of the following was NOT one of the names given to the Western grasses?  
(A) Grama grass (B) Bluejoint grass (C) Buffalo grass (D) Mesquite grass
29. Which of the following was NOT mentioned as a characteristic of western grasses?  
(A) They have tough stems. (B) They are not affected by dry weather.  
(C) They can be grown indoors. (D) They contain little moisture.
30. The word "hard" in line 19 is closest in meaning to  
(A) firm (B) severe (C) difficult (D) bitter
31. According to the passage, the cattle helped promote the growth of the wild grasses by  
(A) stepping on and pressing the seeds into the ground  
(B) naturally fertilizing the soil  
(C) continually moving from one grazing area to another  
(D) eating only small quantities of grass.

**Question 32-44**

Seventeenth-century houses in colonial North America were simple structures that were primarily functional carrying over traditional designs that went back to the Middle Ages. During the first half of the eighteenth century, however, houses began to show a new elegance. As wealth increased, more and more colonists built fine houses.

*Line* (5) Since architecture was not yet a specialized profession in the colonies, the design of buildings was left either to amateur designers or to carpenters who undertook to interpret architectural manuals imported from England. Inventories of colonial libraries show an astonishing number of these handbooks for builders, and the houses erected during the eighteenth century show their influence. Nevertheless, most domestic

(10) architecture of the first three-quarters of the eighteenth century displays a wide divergence of taste and freedom of application of the rules laid down in these books. Increasing wealth and growing sophistication throughout the colonies resulted in houses of improved design, whether the material was wood, stone, or brick. New England still favored wood, though brick houses became common in Boston and other

(15) towns, where the danger of fire gave an impetus to the use of more durable material. A few houses in New England were built of stone, but only in Pennsylvania and adjacent areas was stone widely used in dwellings. An increased use of brick in houses and outbuildings is noticeable in Virginia and Maryland, but wood remained that most popular material even in houses built by wealthy landowners. In the Carolinas, even in

(20) closely packed Charleston, wooden houses were much more common than brick houses.

Eighteenth-century houses showed great interior improvements over their predecessors. Windows were made larger and shutters removed. Large, clear panes replaced the small leaded glass of the seventeenth century. Doorways were larger and

(25) more decorative. Fireplaces became decorative features of rooms. Walls were made of plaster or wood, sometimes elaborately paneled. White paint began to take the place of blues, yellows, greens, and lead colors, which had been popular for walls in the earlier years. After about 1730, advertisements for wallpaper styles in scenic patterns began to appear in colonial newspapers.

**32.** What does the passage mainly discuss?

- (A) The improved design of eighteenth-century colonial houses.
- (B) A comparison of eighteenth-century houses and modern houses.
- (C) The decorations used in eighteenth-century houses.
- (D) The role of carpenters in building eighteenth-century houses.

**33.** What was one of the main reasons for the change in architectural style in eighteenth-century North America?

- (A) More architects arrived in the colonies.
- (B) The colonists developed an interest in classical architecture.
- (C) Bricks were more readily available.
- (D) The colonists had more money to spend on housing.

34. According to the passage, who was responsible for designing houses in eighteenth-century North America?  
(A) Professional architects (B) Customers  
(C) Interior decorators (D) Carpenters.
35. The passage implies that the rules outlined in architectural manuals were  
(A) generally ignored (B) legally binding  
(C) not strictly adhered to (D) only followed by older builders
36. The word "divergence" in line 11 is closest in meaning to  
(A) description (B) development (C) difference (D) display
37. The word "durable" in line 15 is closest in meaning to  
(A) attractive (B) expensive (C) refined (D) long-lasting
38. Where was stone commonly used to build houses?  
(A) Virginia (B) Pennsylvania (C) Boston (D) Charleston
39. The word "dwellings" in line 17 is closest in meaning to  
(A) houses (B) towns (C) outbuildings (D) rural areas
40. The word "predecessors" in line 23 refers to  
(A) colonist who arrived in North America in the seventeenth century.  
(B) houses constructed before the eighteenth century  
(C) interior improvements  
(D) wooden houses in Charleston
41. The author mentions elaborately paneled walls in line 26 as an example of  
(A) how the interior design of colonial houses was improved.  
(B) why walls were made of wood or plaster.  
(C) How walls were made stronger in the eighteenth century.  
(D) What kind of wood was used for walls after 1730.
42. The word "elaborately" in line 26 is closest in meaning to  
(A) done in great detail (B) put together carefully  
(C) using many colors (D) reinforced structurally
43. What does the author imply about the use of wallpaper before 1730?  
(A) Wallpaper samples appeared in the architectural manuals.  
(B) Wallpaper was the same color as the wall paints used  
(C) Patterned wallpaper was not widely used.  
(D) Wallpaper was not used in stone house.
44. Where in the passage does the author give a reason why brick was the preferred material for houses in some urban areas?  
(A) Lines 9-11 (B) Lines 13-15 (C) Lines 17-19 (D) Lines 23-24

**Question 45-50**

Bloodhounds are biologically adapted to trailing their prey. The process by which the nose recognizes an odor is not fully understood, but there are apparently specific receptor sites for specific odors. In one explanation, recognition occurs when a scent molecule fits into its corresponding receptor site, like a key into a lock, causing a mechanical or chemical change in the cell. Bloodhounds apparently have denser concentrations of receptor sites tuned to human scents.

*Line* (5)

When a bloodhound trails a human being, what does it actually smell? The human body, which consists of about 60 trillion living cells, sheds exposed skin at a rate of 50 million cells a day. So even a trail that has been dispersed by breezes may still seem (10) rich to a bloodhound. The body also produces about 31 to 50 ounces of sweat a day. Neither this fluid nor the shed skin cells have much odor by themselves, but the bacteria working on both substances is another matter. One microbiologist estimates the resident bacteria population of a clean square centimeter of skin on the human shoulder at "multiples of a million." As they go about their daily business breaking (15) down lipids, or fatty substances, on the skin, these bacteria release volatile substances that usually strike the bloodhound's nose as an entire constellation of distinctive scents.

45. What does the passage mainly discuss?

- (A) Why people choose bloodhounds for household pets
- (B) How a bloodhound's sense of smell works
- (C) How humans compensate for an underdeveloped sense of smell
- (D) The way in which bacteria work on skin cells and body sweat.

46. The author compares a scent molecule with a

- (A) key
- (B) lock
- (C) cell
- (D) bloodhound

47. In line 7, the word "it" refers to

- (A) bloodhound
- (B) human being
- (C) smell
- (D) body

48. According to the passage, how many cells of skin does the human body rid itself of every day?

- (A) 60 trillion
- (B) 50 million
- (C) 1 million
- (D) Between 31 and 50

49. In line 10, the word "rich" is used to mean that a trail is

- (A) paved with precious materials
- (B) a profitable business to get into
- (C) a very costly undertaking
- (D) filled with an abundance of clues.

50. Which of the following acts as a stimulus in the production of the human scent?

- (A) Sweat
- (B) Dead skin cells
- (C) Bacteria
- (D) Fatty substances

# PRACTICE TEST 37

## December 1996

### Questions 1-9

It is commonly believed that in the United States that school is where people to get an education. Nevertheless, it has been said that today children interrupt their education to go to school. The distinction between schooling and education implied by this remark is important.

- (5) Education is much more open-ended and all-inclusive than schooling. Education knows no bounds. It can take place anywhere, whether in the shower or on the job, whether in a kitchen or on a tractor. It includes both the formal leaning that takes place in school sand the whole universe of informal leaning. The agents of education can range form a revered grandparent o the people debating politics on the radio, from a child to a distinguished scientist. Whereas schooling has a certain predictability, education quite often produces surprises. A chance conversation with stranger may lead a person to discover how little is known of other religions. People are engaged in education from infancy on. Education, then, is a very broad, inclusive term. It is a lifelong process, a process that starts long before the start of school, and one that should be an integral part of one's entire life.

- Schooling, on the other hand, is a specific, formalized process, whose general pattern varies little from one setting to the next. Throughout a country, children arrive at school at approximately the same time, take assigned seats, are taught by an adult, use similar textbooks, do homework, take exams, and so on. The slices of reality that are to be learned, whether they are the alphabet or an understanding of the workings of governments, have usually been limited by the boundaries of the subject being taught. For example, high schools students know that they are not likely to find out in their classes the truth about political problems in their communities or what the newest filmmakers are experimenting with. There are definite conditions surrounding the formalized process of schooling.

1. What is the main idea of the passage?  
(A) The best schools teach a wide variety of subjects.  
(B) Education and schooling are quite different experiences.  
(C) Students benefit from schools, which require long hours and homework.  
(D) The more years students go to school the better their education is.
2. What does the author probably mean by using the expression "Children interrupt their education to go to school" (lines 2-3)?  
(A) Going to several different schools is educationally beneficial.  
(B) School vacations interrupt the continuity of the school year.  
(C) Summer school makes the school year too long.  
(D) All of life is an education.
3. The word "bounds" in line 6 is closest in meaning to  
(A) rules                      (B) experiences                      (C) limits                      (D) exceptions
4. The word "chance" in line 11 is closest in meaning to  
(A) unplanned                      (B) unusual                      (C) lengthy                      (D) lively
5. The word "integral" in line 15 is closest in meaning to  
(A) an equitable                      (B) a profitable                      (C) a pleasant                      (D) an essential

6. The word "they" in line 20 refers to  
 (A) slices of reality      (B) similar textbooks      (C) boundaries      (D) seats
7. The phrase "For example", line 22, introduces a sentence that gives example of  
 (A) similar textbooks      (B) the results of schooling  
 (C) the working of a government      (D) the boundaries of classroom subject
8. The passage supports which of the following conclusions?  
 (A) Without formal education, people would remain ignorant.  
 (B) Education systems need to be radically reformed.  
 (C) Going to school is only part of how people become educated.  
 (D) Education involves many years of professional training.
9. The passage is organized by  
 (A) listing and discussing several educational problems  
 (B) contrasting the meanings of two related words  
 (C) narrating a story about excellent teachers  
 (D) giving examples of different kinds of schools

### Questions 10-18

The hard, rigid plates that form the outermost portion of the Earth are about 100 kilometers thick. These plates include both the Earth's crust and the upper mantle. The rocks of the crust are composed mostly of minerals with light elements, like  
*Line* aluminum and sodium, while the mantle contains some heavier elements, like iron and  
 (5) magnesium. Together, the crust and upper mantle that form the surface plates are called the lithosphere. This rigid layer floats on the denser material of the lower mantle the way a wooden raft floats on a pond. The plates are supported by a weak, plastic layer of the lower mantle called the asthenosphere. Also like a raft on a pond, the lithospheric plates are carried along by slow currents in this more fluid layer beneath  
 (10) them.

With an understating of plate tectonics, geologists have put together a new history for the Earth's surface. About 200 million years ago, the plates at the Earth's surface formed a "supercontinent" called Pangaea. When this supercontinent started to tear apart because of plate movement, Pangaea first broke into two large continental masses  
 (15) with a newly formed sea that grew between the land areas as the depression filled with water. The southern one-which included the modern continents of South America, Africa, Australia, and Antarctic- is called Gondwanaland. The northern one-with North America, Europe, and Asia-is called Laurasia. North America tore away from Europe about 180 million years ago, forming the northern Atlantic Ocean.  
 (20) Some of the lithospheric plates carry ocean floor and others carry land masses or a combination of the two types. The movement of the lithospheric plates is responsible for earthquakes, volcanoes, and the Earth's largest mountain ranges. Current understating of the interaction between different plates explains why these occur where they do. For example, the edge of the Pacific Ocean has been called the "Ring  
 (25) of Fire" because so many volcanic eruptions and earthquakes happen there. Before the 1960's, geologist could not explain why active volcanoes and strong earthquakes were concentrated in that region. The theory of plate tectonics gave them an answer.

10. With which of the following topic is the passage mainly concerned?  
(A) The contributions of the theory of plate tectonics to geological knowledge  
(B) The mineral composition of the Earth's crust  
(C) The location of the Earth's major plates  
(D) The methods used by scientists to measure plate movement
11. According to the passage, the lithospheric plates are given support by the  
(A) upper mantle                      (B) ocean floor                      (C) crust                      (D) asthenosphere
12. The author compares the relationship between the lithosphere and the asthenosphere to which of the following?  
(A) Lava flowing from a volcano                      (B) A boat floating on the water  
(C) A fish swimming in a pond                      (D) The erosion of rocks by running water
13. The word "one" in line 16 refers to  
(A) movements                      (B) masses                      (C) sea                      (D) depression
14. According to the passage, the northern Atlantic Ocean was formed when  
(A) Pangaea was created  
(B) Plate movement ceased  
(C) Gondwanaland collided with Pangaea  
(D) Parts of Laurasia separated from the each other
15. The word "carry" in line 20 could best be replaced by  
(A) damage                      (B) squeeze                      (C) connect                      (D) support
16. In line 27, the word "concentrated" is closest in meaning to which of the following?  
(A) allowed                      (B) clustered                      (C) exploded                      (D) strengthened
17. Which of the following can be inferred about the theory of plate tectonics?  
(A) It is no longer of great interest to geologists.  
(B) It was first proposed in the 1960's.  
(C) It fails to explain why earthquakes occur.  
(D) It refutes the theory of the existence of a supercontinent.
18. The paragraph following the passage most probably discusses  
(A) why certain geological events happen where they do  
(B) how geological occurrences have changed over the years  
(C) the most unusual geological developments in the Earth's history  
(D) the latest innovations in geological measurement

**Questions 19-28**

In the United States in the early 1800's, individual state governments had more effect on the economy than did the federal government. States chartered manufacturing, baking, mining, and transportation firms and participated in the construction of various internal improvements such as canals, turnpikes, and railroads.

Line (5) The states encouraged internal improvements in two distinct ways: first, by actually establishing state companies to build such improvements; second, by providing part of the capital for mixed public-private companies setting out to make a profit.

In the early nineteenth century, state governments also engaged in a surprisingly large amount of direct regulatory activity, including extensive licensing and inspection programs. Licensing targets reflected both similarities in and differences between the

(10)



economy of the nineteenth century and that of today: in the nineteenth century, state regulation through licensing fell especially on peddlers innkeepers, and retail merchants of various kinds. The perishable commodities of trade generally came under state inspection, and such important frontier staples as lumber and gunpowder were also subject to state control. Finally, state governments experimented with direct labor and business regulation designed to help the individual laborer or consumer, including setting maximum limits on hours of work and restrictions on price-fixing by businesses.

Although the states dominated economic activity during this period, the federal government was not inactive. Its goals were the facilitation of western settlement and the development of native industries. Toward these ends the federal government pursued several courses of action. It established a national bank to stabilize banking activities in the country and, in part, to provide a supply of relatively easy money to the frontier, where it was greatly needed for settlement. It permitted access to public western lands on increasingly easy terms, culminating in the Homestead Act of 1862, by which title to land could be claimed on the basis of residence alone. Finally, it set up a system of tariffs that was basically protectionist in effect, although maneuvering for position by various regional interests produced frequent changes in tariff rates throughout the nineteenth century.

19. What does the passage mainly discuss?  
 (A) States' rights versus federal rights  
 (B) The participation of state governments in railroad, canal, and turnpike construction  
 (C) The roles of state and federal governments in the economy of the nineteenth century  
 (D) Regulatory activity by state governments
20. The word "effect" in line 2 is closest in meaning to  
 (A) value (B) argument (C) influence (D) restraint
21. All of the following are mentioned in the passage as areas that involved state governments in the nineteenth century EXCEPT  
 (A) mining (B) banking (C) manufacturing (D) higher education
22. The word "distinct" in line 5 is closest in meaning to  
 (A) separate (B) innovative (C) alarming (D) provocative
23. It can be inferred from the first paragraph that in the nineteenth century canals and railroads were  
 (A) built with money that came from the federal government  
 (B) much more expensive to build than they had been previously  
 (C) built predominantly in the western part of the country  
 (D) sometimes built in part by state companies
24. The regulatory activities of state governments included all of the following EXCEPT  
 (A) licensing of retail merchants  
 (B) inspecting materials used in turnpike maintenance  
 (C) imposing limits on price fixing  
 (D) control of lumber
25. The word "setting" in line 17 is closest in meaning to  
 (A) discussing (B) analyzing (C) establishing (D) avoiding
26. The word "ends" in line 20 is closest in meaning to  
 (A) Benefits (B) decisions (C) services (D) goals
27. According to the passage, which of the following is true of the Homestead Act of 1862?

- (A) It made it increasingly possible for settlers to obtain land in the West.
- (B) It was a law first passed by state governments in the West.
- (C) It increased the money supply in the West.
- (D) It established tariffs in a number of regions

28. Which of the following activities was the responsibility of the federal government in the nineteenth century?

- (A) Control of the manufacture of gunpowder
- (B) Determining the conditions under which individuals worked
- (C) Regulation of the supply of money
- (D) Inspection of new homes built on western lands

### Questions 29-38

Life originated in the early seas less than a billion years after the Earth was formed. Yet another three billion years were to pass before the first plants and animals appeared on the continents. Life's transition from the sea to the land was perhaps as much of an

*Line* evolutionary challenge as was the genesis of life.

- (5) What forms of life were able to make such a drastic change in lifestyle? The traditional view of the first terrestrial organisms is based on megafossils—relatively large specimens of essentially whole plants and animal. Vascular plants, related to modern seed plants and ferns, left the first comprehensive megafossil record. Because of this, it has been commonly assumed that the sequence of terrestrialization reflected
- (10) the evolution of modern terrestrial ecosystems. In this view, primitive vascular plants first colonized the margins of continental waters, followed by animals that fed on the plants, and lastly by animals that preyed on the plant-eater. Moreover, the megafossils suggest that terrestrial life appeared and diversified explosively near the boundary between the Silurian and the Devonian periods, a little more than 400 million
- (15) years ago.

- Recently, however, paleontologists have been taking a closer look at the sediments below this Silurian-Devonian geological boundary. It turns out that some fossils can be extracted from these sediments by putting the rocks in an acid bath. The technique has uncovered new evidence from sediments that were deposited near the shores of the
- (20) ancient oceans—plant microfossils and microscopic pieces of small animals. In many instances the specimens are less than one-tenth of a millimeter in diameter. Although they were entombed in the rocks for hundreds of millions of years, many of the fossils consist of the organic remains of the organism.

- These newly discovered fossils have not only revealed the existence of previously
- (25) unknown organisms, but have also pushed back these dates for the invasion of land by multicellular organisms. Our views about the nature of the early plant and animal communities are now being revised. And with those revisions come new speculations about the first terrestrial life-forms.

29. The word "drastic" in line 5 is closest in meaning to

- (A) widespread
- (B) radial
- (C) progressive
- (D) risky

30. According to the theory that the author calls "the traditional view", what was the first form of life to appear on land?

- (A) Bacteria
- (B) Meat-eating animals
- (C) Plant-eating animals
- (D) Vascular plants

31. According to the passage, what happened about 400 million years ago?  
 (A) Many terrestrial life-forms died out.  
 (B) New life-forms on land developed at a rapid rate.  
 (C) The megafossils were destroyed by floods.  
 (D) Life began to develop in the ancient seas.
32. The word "extracted" in line 18 is closest in meaning to  
 (A) located (B) preserved (C) removed (D) studied
33. What can be inferred from the passage about the fossils mentioned in lines 17-20?  
 (A) They have not been helpful in understanding the evolution of terrestrial life.  
 (B) They were found in approximately the same numbers as vascular plant fossils.  
 (C) They are older than the megafossils.  
 (D) They consist of modern life forms.
34. The word "instances" in line 21 is closest in meaning to  
 (A) methods (B) processes (C) cases (D) reasons
35. The word "they" in line 22 refers to  
 (A) rocks (B) shores (C) oceans (D) specimens
36. The word "entombed" in line 22 is closest in meaning to  
 (A) crushed (B) trapped (C) produced (D) excavated
37. Which of the following resulted from the discovery of microscopic fossils?  
 (A) The time estimate for the first appearance of terrestrial life-forms was revised  
 (B) Old techniques for analyzing fossils were found to have new uses.  
 (C) The origins of primitive sea life were explained.  
 (D) Assumptions about the locations of ancient seas were changed.
38. With which of the following conclusions would the author probably agree?  
 (A) The evolution of terrestrial life was as complicated as the origin of life itself.  
 (B) The discovery of microfossils supports the traditional view of how terrestrial life evolved.  
 (C) New species have appeared at the same rate over the course of the last 400 million years.  
 (D) The technology used by paleontologists is too primitive to make accurate determinations about ages of fossils.

### Questions 39-50

- What we today call America folk art was, indeed, art of, by, and for ordinary, everyday "folks" who, with increasing prosperity and leisure, created a market for art of all kinds, and especially for portraits. Citizens of prosperous, essentially  
*Line* middle-class republics-whether ancient Romans, seventeenth-century Dutch  
 (5) burghers, or nineteenth-century Americans-have always shown a marked taste for portraiture. Starting in the late eighteenth century, the United States contained increasing numbers of such people, and of the artists how could meet their demands. The earliest American folk art portraits come, not surprisingly, from New England-especially Connecticut and Massachusetts-for this was a wealthy and  
 (10) populous region and the center of a strong craft tradition. Within a few decades after the signing of the Declaration of Independence in 1776, the population was pushing westward, and portrait painters could be found at work in western New York, Ohio, Kentucky, Illinois, and Missouri. Midway through its first century as a nation, the United States' population had increased roughly five time, and eleven new states had  
 (15) been added to the original thirteen. During these years the demand for portraits grew

and grew, eventually to be satisfied by the camera. In 1839 the daguerreotype was introduced to America, ushering in the age of photography, and within a generation the new invention put an end to the popularity of painted portraits. One again an original portrait became a luxury, commissioned by the wealthy and executed by the professional.

(20)

But in the heyday of portrait painting—from the late eighteenth century until the 1850's—anyone with a modicum of artistic ability could become a limner, as such a portraitist was called. Local craftspeople—sign, coach, and house painters—began to paint portraits as a profitable sideline; sometimes a talented man or woman who began by sketching family members gained a local reputation and was besieged with requests for portraits; artists found it worth their while to pack their paints, canvases, and brushes and to travel the countryside, often combining house decorating with portrait painting.

(25)

39. In lines 4-5 the author mentions seventeenth-century Dutch burghers as an example of a group that
- (A) consisted mainly of self taught artists                      (B) appreciated portraits  
(C) influenced American folk art                                      (D) had little time for the arts
40. The word "market" in line 5 is closest in meaning to
- (A) pronounced                      (B) fortunate                      (C) understandable                      (D) mysterious
41. According to the passage, where were many of the first American folk art portraits painted?
- (A) In western New York                      (B) In Illinois and Missouri  
(C) In Connecticut and Massachusetts                      (D) In Ohio
42. The word "this" in line 9 refers to
- (A) a strong craft tradition                      (B) American folk art  
(C) New England                      (D) western New York
43. How much did the population of United States increase in the first fifty years following independence?
- (A) It became three times larger.                      (B) It became five times larger.  
(C) It became eleven times larger.                      (D) It became thirteen times larger.
44. The phrase "ushering in" in line 17 is closest in meaning to
- (A) beginning                      (B) demanding                      (C) publishing                      (D) increasing
45. The relationship between the daguerreotype (line 16) and the painted portrait is similar to the relationship between the automobile and the
- (A) highway                      (B) driver  
(C) horse-drawn carriage                      (D) engine
46. According to the passage, which of the following contributed to a decline in the demand for painted portraits?
- (A) The lack of a strong craft tradition  
(B) The westward migration of many painters  
(C) The growing preference for landscape paintings  
(D) The invention of the camera
47. The word "executed" in line 19 is closest in meaning to
- (A) sold                      (B) requested                      (C) admired                      (D) created
48. The author implies that most limners (line 22)
- (A) received instruction from traveling teachers

- (B) were women
- (C) were from wealthy families
- (D) had no formal art training

**49.** The word "sketching" in line 25 is closest in meaning to

- (A) drawing
- (B) hiring
- (C) helping
- (D) discussing

**50.** Where in the passage does the author provide definition?

- (A) Lines 3-6
- (B) Lines 8-10
- (C) Lines 13-15
- (D) Lines 21-23

# PRACTICE TEST 38

## January 1995

### Passage 1

The Cajun people, descendants of the French Acadians who resettled in south Louisiana in the mid-1700's, have been producing their own traditional style of music for nearly two centuries. However, by the late 1940's, commercially recorded Cajun music had begun to lose its individual character in favor of new sounds heavily influenced by hillbilly music and western swing. Then, in 1948, Iry Lejeune recorded "La Valse du Pont d'Amour." Greatly inspired by the recordings of Amede Ardoin and by his own relatives and neighbors in Pointe Noire, Louisiana. Lejeune went against the grain to perform in the old, traditional style long forced underground. Some said the young singer from rural Louisiana who carried his accordion in a flour sack didn't know better, but crowds rushed to hear his highly emotional music. His unexpected popular success focused attention on cultural values that Cajuns had begun to fear losing.

Iry Lejeune became a pivotal figure in the revitalization of Cajun music; his untimely death in 1955 only added to his legendary stature. Following his lead, musicians like Joe Falcon, Lawrence Walker, Austin Pitre, and Nathan Abshire dusted off long - abandoned accordions to perform and record traditional - style Cajun music. Interest and demand were especially strong after the Second World War among returning soldiers, tired of foreign wars and foreign affairs, who wanted only to get back to the comfort and security of their own culture. Local music store owners pioneered their own local recording industry since national record companies had abandoned regional traditional styles and were only producing music with a broader, national appeal.

1. Cajun music recordings in the 1940's were
  - (A) imitations of Amede Ardoin's work
  - (B) performed in the traditional style
  - (C) influenced by other forms of American music
  - (D) a huge commercial success
2. To say that Lejeune went "against the grain" (line 7) when performing in the old, traditional style suggests which of the following?
  - (A) He played music most other musicians weren't playing.
  - (B) He preferred to play modern music.
  - (C) He performed badly when he played traditional music.
  - (D) He could not make a living playing music.
3. The word "who" in line 8 refers to which of the following?
  - (A) Neighbors
  - (B) Crowds
  - (C) Ardoin
  - (D) Lejeune
4. The word "revitalization" in line 12 is closest in meaning to which of the following.
  - (A) Interpretation
  - (B) Introduction
  - (C) Rebirth
  - (D) Relevance
5. It can be inferred from the passage that when Lejeune died
  - (A) his popularity increased
  - (B) people stopped playing accordions
  - (C) musicians lost interest in traditional music
  - (D) local music store owners lost money
6. Why did interest in traditional Cajun music increase after the Second World War?
  - (A) It had a broad, national appeal.
  - (B) Returning soldiers had missed their culture.
  - (C) The recording industry became more interested in it.
  - (D) Modern music had become distasteful.

## Passage 2

One of the most remarkable of migrations is that taken each fall by the North American monarch butterfly. Often called "the wanderer", it is tough and powerful as butterflies go, and is capable of long flights at speeds of 20 miles per hour or more. Monarch butterflies have been observed within 200 miles of the coast of England, although they are not native to Europe. They are now also found in Asia and Australia, perhaps having been carried there by the wind.

The monarch produces as many as four generations a year, each one of which ventures a little farther north. It is the last of these that migrates before the onset of winter. From as far north as Canada, swarms of butterflies begin gathering from their homes in the fields, clinging to trees and bushes by the thousands. Then, on just the right breeze, they rise in a red cloud and head south. Not all get there. But enough do to ensure the survival of the species until the following spring.

- What is the main topic of the passage?
  - The migration of insects to Europe
  - A butterfly with extraordinary powers of flight
  - The reproductive cycle of the monarch butterfly
  - Remarkable insects of the Western Hemisphere
- The phrase "as butterflies go" (line 2) could best be replaced by which of the following?
  - In the direction butterflies fly
  - Flying as do other butterflies
  - Since butterflies leave
  - Compared to other butterflies
- The phrase "as many as" (line 7) could best be replaced by
  - exactly
  - at least
  - up to
  - more than
- In line 8 the word "these" refers to
  - generations
  - species
  - migrations
  - swarms
- According to the author, what must occur before the butterflies can depart?
  - Spring
  - A storm
  - A suitable wind
  - Evening

## Passage 3

Both Mercy Warren and Abigail Adams admired Catharine Macaulay, the radical author of *A History of England* (1763), who supported the cause of the American patriots. Under Macaulay's influence Mercy Warren conceived her plan to write a history of the American Revolution, living to complete it in 1805. Abigail Adams rejected literary ambitions for herself and never lost her sense of inferiority about her poor spelling and ignorance of Latin. Yet her letters, rather than Warren's plays and verse, have become the greater source in documenting signs of a dawning feminist consciousness.

Abigail Adams welcomed every advance for women and foresaw more than could be realized in her lifetime. She urged her husband, the second President of the United States, to "remember the ladies" in the new code of laws, and to give married women protection from tyrannical husbands. As she pointed out the terrible deficiencies in education for women at all levels, she finally made the significant request to her husband, that the new constitution "be distinguished for Learning and Virtue," and suggested that "if we mean to have Heroes, Statesmen and Philosophers, we should have learned women." This awareness of education's value, rooted in the Enlightenment faith in human potentiality, had feminist implications before there was a feminist ideology.

A younger contemporary of similar background gave the reading public an explicit feminist argument for the education of women. The views of Judith Sargent Murray (1751-1820) reflected both personal and family experience. *Murray's Cleaner* essays published in the 1790's transcended the boundaries of her world in recognizing the need for training women to earn their own living. Although, like Mercy Warren and Abigail Adams, she was brought up with the values of gentility, she knew through personal hardship that even women of her class might be forced to be self-supporting: education could provide independence for women in need, whether they were unmarried women or widows or wives.

1. What does the passage mainly discuss?  
(A) Abigail Adams' life  
(B) Women historians  
(C) Early sources of feminist thinking  
(D) The literary ambitions of Judith Sargent Murray
2. What does the author mean by the statement that Abigail Adams "foresaw more than could be realized in her lifetime" (lines 8~9)?  
(A) No progress was made during her life.  
(B) She made predictions that eventually came true.  
(C) Her life was very short.  
(D) She didn't want to become a public figure.
3. Which of the following statements best expresses Judith Sargent Murray's position?  
(A) Women should be well educated in order to support themselves.  
(B) Women's rights must be protected by new laws.  
(C) The accomplishments of women are ignored in most historical documents.  
(D) Women need to become more active in political affairs.
4. Where in the passage does the author mention Abigail Adams' position regarding education for women?  
(A) Lines 1-2  
(B) Lines 4-5  
(C) Lines 11-14  
(D) Lines 21-24
5. What did Mercy Warren, Abigail Adams, and Judith Sargeant Murray have in common.  
(A) They all wrote books.  
(B) They were all responsible for the financial support of their families.  
(C) They were all interested in women's accomplishments.  
(D) They al had influential families.

## **Passage 4**

Some cacti, like the saguaro, grow to tree size, but true trees need more moisture than most desert environments can supply, so they are scarce on deserts. Close to streambeds, cottonwoods can sometimes be found. Though these streams are dry most of the year, water flows there longest and is usually available fairly close to the surface. Elsewhere, trees must send taproots deep into the hard-baked desert soil to draw on underground water. Perhaps the most widespread family of trees on the world's deserts is the acacia, whose taproots drill down as far as 25 feet (7.5 meters). The mesquite, common on North American deserts in both tree and shrub forms, does not begin to grow above ground until its root system is completely developed, ensuring the plant a supply of moisture.

The roots of shrubs and trees help to hold the desert soil in place. Their stalks and branches also act as screens to keep the wind from sweeping great drifts of sand along the surface. These services are vital if a desert is to support life. Scientists estimate that a desert needs year-round plant cover over 20 to 40 percent of its surface. If shrubs are too far apart-separated by a distance greater than five times their height-soil around them is likely to blow away. Without the shelter of established shrubs, new seedlings will have difficulty getting a start.



On the other hand, plants that are too close together may compete for underground moisture. To protect themselves from this competition, some shrubs give off a substance that kills young plants that sprout too close to them.

In addition to a few varieties of trees and tough shrubs, most deserts have grasses, herbs, and other annual plants. These do not compete for moisture with the longer-lived growth. They spring up quickly after rains, when the surface is moist. Then, for a brief time, the desert can be literally carpeted with color. Almost as quickly as they appeared, these small plants die away. But they have developed special ways of ensuring the life of another generation when rains come again.

1. What is the main topic of the passage?
 

(A) The effect of extreme heat on plants	(B) Difficulties of survival in the desert
(C) The regeneration of annual plants	(D) Water sources in the desert
2. What can be inferred about cottonwoods from the passage?
 

(A) They are a kind of cactus	(B) They produce a soft wood
(C) They are true trees	(D) They grow only in the desert
3. The root system of which of the following grows before the upper part?
 

(A) A cottonwood	(B) An acacia
(C) A mesquite	(D) A saguaro
4. Which of the following is NOT mentioned in the passage as a function of trees and shrubs in the desert?
  - (A) Their roots keep the earth in place
  - (B) They shelter new seedlings
  - (C) Their branches and stalks prevent soil from drifting
  - (D) They provide shelter to animals
5. Shrubs that are each 1 foot high should be how far apart from each other?
 

(A) Less than 5 feet	(B) Approximately 10 feet
(C) Between 20 and 40 feet	(D) More than 40 feet
6. Which of the following is NOT mentioned as a characteristic of the annual plants of the desert?
  - (A) They grow only after it rains
  - (B) Their lifetime is often very brief
  - (C) Some of them are very brightly colored
  - (D) Larger plants compete with them for moisture

## Passage 5

There are two ways to create colors in a photograph. One method, called additives, starts with three basic colors and adds them together to produce some other color. The second method, called subtractive, starts with white light (a mixture of all colors in the spectrum) and, by taking away some or all other colors, leaves the one desired.

In the additive method, separate colored lights combine to produce various other colors. The three additive primary colors are green, red, and blue (each providing about one-third of the wavelengths in the total spectrum). Mixed in varying proportions, they can produce all colors. Green and red light mix to produce yellow; red and blue light mix to produce magenta; green and blue mix to produce cyan. When equal parts of all three of these primary-colored beams of light overlap, the mixture appears white to the eye.

In the subtractive process, colors are produced when dye (as in paint or color photographic materials) absorbs some wavelengths and so passes on only part of the spectrum. The subtractive primaries are cyan (a bluish green), magenta (a purplish pink), and yellow; these are the pigments or dyes that absorb red, green, and blue wavelengths, respectively, thus subtracting them from white light. These dye colors are the complementary colors to the three additive primaries of red, green, and blue. Properly combined, the subtractive primaries can absorb all colors of light, producing black. But, mixed in varying proportions, they too can produce any color in the spectrum.

Whether a particular color is obtained by adding colored lights together or by subtracting some light from the total spectrum, the result looks the same to the eye. The additive process was employed for early color photography. But the subtractive method, while requiring complex chemical techniques, has turned out to be more practical and is the basis of all modern color films.

1. What does the passage mainly discuss?  
(A) Recent developments in camera technology  
(B) How to make white light  
(C) The additive and subtractive methods of producing color  
(D) The discovery of the spectrum
2. The word "one" in line 4 refer to  
(A) color                                      (B) method                                      (C) mixture                                      (D) light
3. The picture below represents the addition of the red, green, and blue light. What color would be expected in the region marked "X"  
(A) White                                      (B) Black                                      (C) Yellow                                      (D) Magenta
4. Which of the following is closest in meaning to the phrase "passes on" as used in line 12 ?  
(A) judges                                      (B) lets through                                      (C) dies                                      (D) goes over
5. What color filter would absorb red wave-lengths?  
(A) Red                                      (B) Cyan                                      (C) Magenta                                      (D) Yellow
6. Which of the following is NOT a pair of additive and subtractive primary colors?  
(A) Yellow and blue                                      (B) Magenta and green  
(C) Black and white                                      (D) Cyan and red
7. What explanation is given for the use of the subtractive method in modern color films?  
(A) Subtractive colors are more realistic.  
(B) The subtractive process is more efficient.  
(C) Additive chemical techniques are too complex.  
(D) The additive process is still being developed.
8. How is the passage organized?  
(A) The reasons for a choice are explained in depth.  
(B) A general statement is justified by a series of historical examples.  
(C) Two basic causes are compared.  
(D) Related processes are described one after the other.

# PRACTICE TEST 39

## May 1995

### Passage 1

Before the 1850's the United States had a number of small colleges, most of them dating from colonial days. They were small, church-connected institutions whose primary concern was to shape the moral character of their students.

Throughout Europe, institutions of higher learning had developed, bearing the ancient name of university. In Germany a different kind of university had developed. The German university was concerned primarily with creating and spreading knowledge, not morals. Between midcentury and the end of the 1800's, more than nine thousand young Americans, dissatisfied with their training at home, went to Germany for advanced study. Some of them returned to become presidents of venerable colleges—Harvard, Yale, Columbia—and transform them into modern universities. The new presidents broke all ties with the churches and brought in a new kind of faculty. Professors were hired for their knowledge of a subject, not because they were of the proper faith and had a strong arm for disciplining students. The new principle was that a university was to create knowledge as well as pass it on, and this called for a faculty composed of teacher - scholars. Drilling and learning by rote were replaced by the German method of lecturing, in which the professor's own research was presented in class. Graduate training leading to the Ph. D, an ancient German degree signifying the highest level of advanced scholarly attainment, was introduced. With the establishment of the seminar system, graduate students learned to question, analyze, and conduct their own research.

At the same time, the new university greatly expanded in size and course offerings, breaking completely out of the old, constricted curriculum of mathematics, classics, rhetoric, and music. The president of Harvard pioneered the elective system, by which students were able to choose their own courses of study. The notion of major fields of study emerged. The new goal was to make the university relevant to the real pursuits of the world. Paying close heed to the practical needs of society, the new universities trained men and women to work at its tasks, with engineering students being the most characteristic of the new regime. Students were also trained as economists, architects, agriculturalists, social welfare workers, and teachers.

1. The word "this" in line 13 refers to which of the following?  
(A) Creating and passing on knowledge  
(B) Drilling and learning by rote  
(C) Disciplining students  
(D) Developing moral principles
2. According to the passage, the seminar system encouraged students to  
(A) discuss moral issues  
(B) study the classics, rhetoric, and music  
(C) study overseas  
(D) work more independently
3. The word "constricted" in line 20 is closest in meaning to which of the following?  
(A) Mandatory  
(B) Limited  
(C) Challenging  
(D) Competitive
4. It can be inferred from the passage that before 1850, all of the following were characteristic of higher education EXCEPT  
(A) the elective system  
(B) drilling  
(C) strict discipline  
(D) rote learning

5. Those who favored the new university would be most likely to agree with which of the following statements?
- (A) Learning is best achieved through discipline and drill.
  - (B) Shaping the moral character of students should be the primary goal
  - (C) Higher education should prepare students to contribute to society.
  - (D) Teachers should select their students' courses.
6. Where does the author mention why many students decided to study abroad?
- (A) Lines 1-2
  - (B) Lines 7-8
  - (C) Lines 21-22
  - (D) Lines 25-26

## Passage 2

Most of our planet is covered by water. There is so much of it that if all the mountains of the world were leveled and their debris dumped into the oceans, the surface of the globe would be entirely submerged beneath water to a depth of several thousand meters. The great basins between the continents, in which all this water lies, are themselves more varied topographically than the surface of the land. The highest terrestrial mountain, Mount Everest, would fit into the deepest part of the ocean, the Mariana Trench, with its peak a kilometer beneath the surface. On the other hand, the biggest mountains of the sea are so huge that they rise above the surface of the water to form chains of islands. Mauna Kea, the highest of the Hawaiian volcanoes, measured from its base on the ocean floor, is more than 10,000 meters high and so can claim to be highest mountain on the planet.

The seas first formed when the Earth began to cool soon after its birth and hot water vapor condensed on its surface. They were further fed by water gushing through volcanic vents from the interior of the Earth. The water of these young seas was not pure, like rainwater, but contained significant quantities of chlorine, bromine, iodine, boron, and nitrogen, as well as traces of many rarer substances. Since then other ingredients have been added. As continental rocks weather and erode, they produce salts that are carried in solution down to the sea by rivers. So, over millennia, the sea has been getting saltier and saltier.

Life first appeared in this chemically rich water some 3.5 billion years ago. We know from fossils that the first organisms were simple single-celled bacteria and algae. Organisms very like them still exist in the sea today. They are the basis of all marine life, indeed. Were it not for these algae, the seas would still be completely sterile and the land uninhabited.

1. The word "debris" in line 2 is closest in meaning to
- (A) fragments
  - (B) decay
  - (C) composition
  - (D) foundation
2. The writer mentions Mount Everest in line 5 in order to
- (A) show how comparatively small underwater mountains are
  - (B) reveal the proportions of the underwater terrain
  - (C) explain how volcanoes are formed
  - (D) identify the largest mountain on the planet
3. The word "they" in line 16 refers to
- (A) ingredients
  - (B) rocks
  - (C) substances
  - (D) salts
4. According to the passage, which of the following has contributed to the sea becoming increasingly salty?
- (A) Water vapor condensing on the surface of the sea
  - (B) Single-celled organisms decaying in the sea
  - (C) Products of erosion being transported to the sea
  - (D) Sterile rainwater falling into the sea

5. Which of the following is mentioned as part of the foundation of all life in the sea?  
 (A) Algae (B) Fossils (C) Seaweed (D) Rainwater
6. Where in the passage does the author mention the processes that led to the creation of the seas on Earth?  
 (A) Lines 1-3 (B) Lines 5 – 7 (C) Lines 11 – 13 (D) Lines 15-17

### Passage 3

The most striking single fact about chimpanzees is the flexibility of their social life, the lack of any rigid form of organization. It represents about as far a departure from the baboon type of organization as one can find among the higher primates, and serves to emphasize the great variety of primate adaptations. Chimpanzees are more human than baboons, or rather they jibe better with the way we like to picture ourselves, as free - wheeling individuals who tend to be unpredictable, do not take readily to any form of regimentation, and are frequently charming. (Charm is relatively rare among baboons.)

Two researchers have described what they found during more than eight months spent among chimpanzees in their natural habitat, the forest: "We were quite surprised to observe that there is no single distinct social unit in chimpanzee society. Not only is there no 'family' or 'harem' organization; neither is there a 'troop' organization-that is to say, no particular chimpanzees keep permanently together. On the contrary, individuals move about at will alone or in small groups best described as bands, which sometimes form into large aggregations. They leave their associates if they want to, and join up with new ones without conflict.

The general practice is best described as "easy come, easy go," although there are certain group-forming tendencies. As a rule chimpanzees move about in one of four types of band: adult males only; mothers and offspring and occasionally a few other females; adults and adolescents of both sexes, but no mothers with young; and representatives of all categories mixed together. The composition of bands may change a number of times during the course of a day as individuals wander off and groups split or combine with other groups. On the other hand, certain individuals prefer one another's company. One of the researchers observed that four males often roamed together over a four-month period, and mothers often associated with their older offspring.

1. The author's main purpose is to explain  
 (A) how chimpanzees mate  
 (B) the differences between baboons and chimpanzees  
 (C) why chimpanzees live in the forest  
 (D) the relationships among chimpanzees
2. The author implies that the social behavior of baboons is  
 (A) predictable (B) practical (C) political (D) primitive
3. According to the passage, the researchers were surprised that chimpanzees had such  
 (A) temporary associations (B) humanlike families  
 (C) violent conflicts (D) large harems
4. In line 16, the phrase "easy come, easy go" could best be replaced by  
 (A) immobile (B) nonchalant (C) functional (D) aggressive
5. According to the passage, the membership of a chimpanzee band may change several times in a  
 (A) day (B) week (C) month (D) year

6. Where in the passage does the author concede that individual chimpanzees may have a preference for certain companions?

(A) Lines 2-4

(B) Lines 10-12

(C) Lines 16-17

(D) Lines 21-22

### Passage 4

Perhaps no poet's career was more closely associated with the imagist movement than was that of H. D. (Hilda Doolittle). Her verse, with its precise, clear images, typified the imagists' rebellion against what they perceived as the sentimentalism and careless techniques of nineteenth century poetry.

H. D. attended private schools in Philadelphia and then Bryn Maws College. The love of classical antiquity she acquired during these years later surfaced in the many references in her poetry to figures from Greek and Egyptian mythology and in her classical notions of beauty and form. While in Philadelphia she also began rewarding friendships with Ezra Pound, William Carlos Williams, and Harriet Monroe.

In 1910.. H. D. sailed for Europe, where her career began. Soon after arriving in London, she renewed her friendship with Pound and met and married Richard Aldington, an imagist poet and novelist who also directly influenced the shape of her writing. She began writing short poems that so impressed Pound with their precise description and diction that he insisted she submit them to Harriet Monroe's *Poetry* magazine signed "H. D., Imagist." She persisted in using her initials for the remainder of her career, a career, a closely linked to the Imagist rebellion against more traditional poetry.

The clear, spare, and energetic lyrics of H. D.'s early poems, with their classical images, later became fuller, freer, and more "pen" philosophic explorations of the world. By then, the destruction of the Second World War that she witnessed elicited deeper visions of the relationship of ancient truths to modern realities. That vision is expressed in such works as *Trilogy* (1946), *Helen in Egypt* (1961), and her last work *Hermetic Definition* (1961).

H. D.'s industry and literary achievement are just beginning to be recognized and appreciated. In addition to her poetry, she wrote several novels, including *Palimpsest* (1926), *Hedys* (1928), and *Bid Me to Live* (1960). Many of her other poems, essays, and short stories have been published posthumously.

1. What does the passage mainly discuss?

(A) H.D.'s early works

(B) H. D. 's contributions to a literary movement

(C) The influence of nineteenth century Poetry on H.D. s work

(D) The role of mythology in H. D. 's poetry

2. According to the passage, the Imagists revolted against earlier poets' emphasis on

(A) strict technique

(B) the classics

(C) beauty and form

(D) emotion

3. According to the passage, H. D. 's interest in the classics was inspired by

(A) Imagist poetry

(B) the Second World War

(C) her travel experiences

(D) her formal education

4. H. D. was encouraged to submit her work to *poetry* magazine by which of the following?

(A) Richard Adlington

(B) Ezra Pound

(C) Harriet Monroe

(D) William Carlos Williams

5. It can be inferred from the passage that H. D.'s work

(A) discussed personal relationships

- (B) was typical of nineteenth century work
- (C) was difficult to understand
- (D) became more widely known after her death

## Passage 5

Fully outfitted for work on the range, a cowboy, in the days of the western frontier, was covered from head to foot in a protective costume that identified him as distinctly as a knight's armor identified its owner. But every item of dress had a useful purpose, from the broad-brimmed hat that kept sun and rain off his head to the spurs fastened to the backs of his boots. Even the cowboy's ornamental-looking bandanna had various functions—as a mask to keep out trail dust, as insulation against the desert sun when wadded up and stuck in a hat crown, even as a tourniquet in case of a rattlesnake bite.

Beneath this glamorous but utilitarian garb, the cowhand was dressed like any other laborer. He normally wore long johns—unless it was too hot. His shirt was typically collarless and made of cotton or flannel. His woolen pants were sometimes fortified with buckskin sewn over the seat and down the inner thighs to keep them from fraying where they rubbed against the saddle. He rarely used suspenders, since they chafed him, and just as rarely wore a belt unless, as in later days, he was a rodeo rider hankering to show off a fancy belt buckle won in the arena. As a practical measure his pants had to stay up by themselves and thus were bought to fit tightly around the waist. Because it was inconvenient to carry anything in pants pockets while riding, the cowboy usually had on a vest with deep pockets where he kept his tobacco and perhaps a tally book for keeping count of the cattle.

1. What does the passage mainly discuss?
  - (A) Cowboys and knights
  - (B) Cowboy clothes
  - (C) Rodeo customs
  - (D) Dangers on the range
2. The author compares the cowboy to the knight because they both had
  - (A) high ideals
  - (B) distinctive clothes
  - (C) difficult vocations
  - (D) historical importance
3. Which of the following is NOT mentioned in the passage as a use for the cowboy's bandanna?
  - (A) Disguising his face
  - (B) Keeping his head cool
  - (C) Making a tourniquet
  - (D) Shielding his nose from dust
4. A cowboy's pants were fortified with buckskin to
  - (A) hold the pants up
  - (B) make him stylish
  - (C) keep his legs clean
  - (D) make the pants last longer
5. The word "chafed" in line 12 is closest in meaning to which of the following?
  - (A) Wounded
  - (B) Embarrassed
  - (C) Cooled
  - (D) Irritated
6. According to the passage, why did cowboys often wear vests?
  - (A) To look fashionable
  - (B) To keep warm
  - (C) To carry useful items
  - (D) To cover their suspenders
7. Where in the passage does the author mention why a cowboy might wear a belt?
  - (A) lines 1-3
  - (B) line 8
  - (C) lines 11 – 12
  - (D) lines 15-17

# PRACTICE TEST 40

## August 1995

### Questions 1-9

The ocean bottom – a region nearly 2.5 times greater than the total land area of the Earth – is a vast frontier that even today is largely unexplored and uncharted. Until about a century ago, the deep-ocean floor was completely inaccessible, hidden beneath waters averaging over 3,600 meters deep. Totally without light and subjected to intense pressures hundreds of times greater than at the Earth's surface, the deep-ocean bottom is a hostile environment to humans, in some ways as forbidding and remote as the void of outer space.

Although researchers have taken samples of deep-ocean rocks and sediments for over a century, the first detailed global investigation of the ocean bottom did not actually start until 1968, with the beginning of the National Science Foundation's Deep Sea Drilling Project (DSDP). Using techniques first developed for the offshore oil and gas industry, the DSDP's drill ship, the Glomar Challenger, was able to maintain a steady position on the ocean's surface and drill in very deep waters, extracting samples of sediments and rock from the ocean floor.

The Glomar Challenger completed 96 voyages in a 15-year research program that ended in November 1983. During this time, the vessel logged 600,000 kilometers and took almost 20,000 core samples of seabed sediments and rocks at 624 drilling sites around the world. The Glomar Challenger's core samples have allowed geologists to reconstruct what the planet looked like hundred of millions of years ago and to calculate what it will probably look like millions of years in the future. Today, largely on the strength of evidence gathered during the Glomar Challenger's voyages, nearly all earth scientists agree on the theories of plate tectonics and continental drift that explain many of the geological processes that shape the Earth.

The cores of sediment drilled by the Glomar Challenger have also yielded information critical to understanding the world's past climates. Deep-ocean sediments provide a climatic record stretching back hundreds of millions of years, because they are largely isolated from the mechanical erosion and the intense chemical and biological activity that rapidly destroy much land-based evidence of past climates. This record has already provided insights into the patterns and causes of past climatic change – information that may be used to predict future climates.

1. The author refers to the ocean bottom as a "frontier" in line 2 because it
  - (A) is not a popular area for scientific research
  - (B) contains a wide variety of life forms
  - (C) attracts courageous explorers
  - (D) is an unknown territory
2. The word "inaccessible" in line 3 is closest in meaning to
  - (A) unrecognizable
  - (B) unreachable
  - (C) unusable
  - (D) unsafe
3. The author mentions outer space in line 7 because
  - (A) the Earth's climate millions of years ago was similar to conditions in outer space.
  - (B) it is similar to the ocean floor in being alien to the human environment
  - (C) rock formations in outer space are similar to those found on the ocean floor



- (D) techniques used by scientists to explore outer space were similar to those used in ocean exploration
4. Which of the following is true of the Glomar Challenger?  
 (A) It is a type of submarine. (B) It is an ongoing project.  
 (C) It has gone on over 100 voyages (D) It made its first DSDP voyage in 1968
5. The word "extracting" in line 13 is closest in meaning to  
 (A) breaking (B) locating (C) removing (D) analyzing
6. The deep Sea Drilling Project was significant because it was  
 (A) an attempt to find new sources of oil and gas  
 (B) the first extensive exploration of the ocean bottom  
 (C) composed of geologists from all over the world  
 (D) funded entirely by the gas and oil industry
7. The word "strength" in line 21 is closest in meaning to  
 (A) basis (B) purpose (C) discovery (D) endurance
8. The word "they" in line 26 refers to  
 (A) years (B) climates (C) sediments (D) cores
9. Which of the following is NOT mentioned in the passage as being a result of the Deep Sea Drilling Project?  
 (A) Geologists were able to determine the Earth's appearance hundreds of millions of years ago.  
 (B) Two geological theories became more widely accepted  
 (C) Information was revealed about the Earth's past climatic changes.  
 (D) Geologists observed forms of marine life never before seen.

### Question 10-21

Basic to any understanding of Canada in the 20 years after the Second World War is the country's impressive population growth. For every three Canadians in 1945, there were over five in 1966. In September 1966 Canada's population passed the 20 million mark. Most of this surging growth came from natural increase. The depression of the 1930's and the war had held back marriages, and the catching-up process began after 1945. The baby boom continued through the decade of the 1950's, producing a population increase of nearly fifteen percent in the five years from 1951 to 1956. This rate of increase had been exceeded only once before in Canada's history, in the decade before 1911. When the prairies were being settled. Undoubtedly, the good economic conditions of the 1950's supported a growth in the population, but the expansion also derived from a trend toward earlier marriages and an increase in the average size of families. In 1957 the Canadian birth rate stood at 28 per thousand, one of the highest in the world.

After the peak year of 1957, the birth rate in Canada began to decline. It continued falling until in 1966 it stood at the lowest level in 25 years. Partly this decline reflected the low level of births during the depression and the war, but it was also caused by changes in Canadian society. Young people were staying at school longer; more women were working; young married couples were buying automobiles or houses before starting families; rising living standards were cutting down the size of families. It appeared that Canada was once more falling in step with the trend toward smaller families that had occurred all through the Western world since the time of the Industrial Revolution.

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Although the growth in Canada's population had slowed down by 1966 (the increase in the first half of the 1960's was only nine percent), another large population wave was coming over the horizon. It would be composed of the children who were born during the period of the high birth rate prior to 1957.

10. What does the passage mainly discuss?  
(A) Educational changes in Canadian society (B) Canada during the Second World War  
(C) Population trends in postwar Canada (D) Standards of living in Canada
11. According to the passage, when did Canada's baby boom begin?  
(A) In the decade after 1911 (B) After 1945  
(C) During the depression of the 1930's (D) In 1966
12. The word "five" in line 3 refers to  
(A) Canadians (B) years (C) decades (D) marriages
13. The word "surging" in line 4 is closest in meaning to  
(A) new (B) extra (C) accelerating (D) surprising
14. The author suggests that in Canada during the 1950's  
(A) the urban population decreased rapidly (B) fewer people married  
(C) economic conditions were poor (D) the birth rate was very high
15. The word "trend" in line 11 is closest in meaning to  
(A) tendency (B) aim (C) growth (D) directive
16. The word "peak" in line 14 is closest in meaning to  
(A) pointed (B) dismal (C) mountain (D) maximum
17. When was the birth rate in Canada at its lowest postwar level?  
(A) 1966 (B) 1957 (C) 1956 (D) 1951
18. The author mentions all of the following as causes of declines in population growth after 1957 EXCEPT  
(A) people being better educated (B) people getting married earlier  
(C) better standards of living (D) couples buying houses
19. It can be inferred from the passage that before the Industrial Revolution  
(A) families were larger (B) population statistics were unreliable  
(C) the population grew steadily (D) economic conditions were bad
20. The word "It" in line 25 refers to  
(A) horizon (B) population wave (C) nine percent (D) first half
21. The phrase "prior to" in line 26 is closest in meaning to  
(A) behind (B) since (C) during (D) preceding

**Questions 22-30**

Are organically grown foods the best food choices? The advantages claimed for such foods over conventionally grown and marketed food products are now being debated. Advocates of organic foods – a term whose meaning varies greatly – frequently proclaim that such products are safer and more nutritious than others.

- (5) The growing interest of consumers in the safety and nutritional quality of the typical North American diet is a welcome development. However, much of this interest has been sparked by sweeping claims that the food supply is unsafe or inadequate in meeting nutritional needs. Although most of these claims are not

(10) supported by scientific evidence, the preponderance of written material advancing such claims makes it difficult for the general public to separate fact from fiction. As a result, claims that eating a diet consisting entirely of organically grown foods prevents or cures disease or provides other benefits to health have become widely publicized and form the basis for folklore.

(15) Almost daily the public is besieged by claims for "no-aging" diets, new vitamins, and other wonder foods. There are numerous unsubstantiated reports that natural vitamins are superior to synthetic ones, that fertilized eggs are nutritionally superior to unfertilized eggs, that untreated grains are better than fumigated grains, and the like.

(20) One thing that most organically grown food products seem to have in common is that they cost more than conventionally grown foods. But in many cases consumers are misled if they believe organic foods can maintain health and provide better nutritional quality than conventionally grown foods. So there is real cause for concern if consumers, particularly those with limited incomes, distrust the regular food supply and buy only expensive organic foods instead.

22. The word "Advocates" in line 3 is closest in meaning to which of the following?  
 (A) Proponents (B) Merchants (C) Inspectors (D) Consumers
23. In line 4, the word "others" refers to  
 (A) advantages (B) advocates (C) organic foods (D) products
24. The "welcome development" mentioned in line 6 is an increase in  
 (A) interest in food safety and nutrition among North Americans  
 (B) the nutritional quality of the typical North American diet  
 (C) the amount of healthy food grown in North America  
 (D) the number of consumers in North America
25. According to the first paragraph, which of the following is true about the term "organic foods"?  
 (A) It is accepted by most nutritionists. (B) It has been used only in recent years.  
 (C) It has no fixed meaning. (D) It is seldom used by consumers.
26. The word "unsubstantiated" in line 15 is closest in meaning to  
 (A) unbelievable (B) uncontested (C) unpopular (D) unverified
27. The word "maintain" in line 20 is closest in meaning to  
 (A) improve (B) monitor (C) preserve (D) restore
28. The author implies that there is cause for concern if consumers with limited incomes buy organic foods instead of conventionally grown foods because  
 (A) organic foods can be more expensive but are often no better than conventionally grown foods  
 (B) many organic foods are actually less nutritious than similar conventionally grown foods  
 (C) conventionally grown foods are more readily available than organic foods  
 (D) too many farmers will stop using conventional methods to grow food crops
29. According to the last paragraph, consumers who believe that organic foods are better than conventionally grown foods are often  
 (A) careless (B) mistaken (C) thrifty (D) wealthy
30. What is the author's attitude toward the claims made by advocates of health foods?  
 (A) Very enthusiastic (B) Somewhat favorable  
 (C) Neutral (D) Skeptical

v

**Questions 31-40**

There are many theories about the beginning of drama in ancient Greece. The one most widely accepted today is based on the assumption that drama evolved from ritual.

The argument for this view goes as follows. In the beginning, human beings viewed the natural forces of the world, even the seasonal changes, as unpredictable, and they sought, through various means, to control these unknown and feared powers. Those measures which appeared to bring the desired results were then retained and repeated until they hardened into fixed rituals. Eventually stories arose which explained or veiled the mysteries of the rites. As time passed some rituals were abandoned, but the stories, later called myths, persisted and provided material for art and drama.

Those who believe that drama evolved out of ritual also argue that those rites contained the seed of theater because music, dance, masks, and costumes were almost always used. Furthermore, a suitable site had to be provided for performances, and when the entire community did not participate, a clear division was usually made between the "acting area" and the "auditorium". In addition, there were performers, and, since considerable importance was attached to avoiding mistakes in the enactment of rites, religious leaders usually assumed that task. Wearing masks and costumes, they often impersonated other people, animals, or supernatural beings, and mimed the desired effect – success in hunt or battle, the coming rain, the revival of the Sun – as an actor might. Eventually such dramatic representations were separated from religious activities.

Another theory traces the theater's origin from the human interest in storytelling. According to this view, tales (about the hunt, war, or other feats) are gradually elaborated, at first through the use of impersonation, action, and dialogue by a narrator and then through the assumption of each of the roles by a different person. A closely related theory traces theater to those dances that are primarily rhythmical and gymnastic or that are imitations of animal movements and sounds.

31. What does the passage mainly discuss?  
(A) The origins of theater (B) The role of ritual in modern dance  
(C) The importance of storytelling (D) The variety of early religious activities
32. The word "they" in line 4 refers to  
(A) seasonal changes (B) natural forces  
(C) theories (D) human beings
33. What aspect of drama does the author discuss in the first paragraph?  
(A) The reason drama is often unpredictable  
(B) The seasons in which dramas were performed  
(C) The connection between myths and dramatic plots  
(D) The importance of costumes in early drama
34. Which of the following is NOT mentioned as a common element of theater and ritual?  
(A) Dance (B) Costumes (C) Music (D) Magic

35. The word "considerable" in line 15 is closest in meaning to  
 (A) thoughtful (B) substantial (C) relational (D) ceremonial
36. The word "enactment" in line 15 is closest in meaning to  
 (A) establishment (B) performance (C) authorization (D) season
37. The word "they" in line 16 refers to  
 (A) mistakes (B) costumes (C) animals (D) performers
38. According to the passage, what is the main difference between ritual and drama?  
 (A) Ritual uses music whereas drama does not.  
 (B) Ritual is shorter than drama.  
 (C) Ritual requires fewer performers than drama.  
 (D) Ritual has a religious purpose and drama does not.
39. The passage supports which of the following statements?  
 (A) No one really knows how the theater began. (B) Myths are no longer represented dramatically.  
 (C) Storytelling is an important part of dance. (D) Dramatic activities require the use of costumes.
40. Where in the passage does the author discuss the separation of the stage and the audience?  
 (A) Lines 8-9 (B) Lines 12-14 (C) Lines 19-20 (D) Lines 22-24

### Questions 41-50

Staggering tasks confronted the people of the United States, North and South, when the Civil War ended. About a million and a half soldiers from both sides had to be demobilized, readjusted to civilian life, and reabsorbed by the devastated economy.

*Line* Civil government also had to be put back on a peacetime basis and interference from  
 (5) the military had to be stopped.

The desperate plight of the South has eclipsed the fact that reconstruction had to be undertaken also in the North, though less spectacularly. Industries had to adjust to peacetime conditions: factories had to be retooled for civilian needs.

Financial problems loomed large in both the North and the South. The national debt  
 (10) had shot up from a modest \$65 million in 1861, the year the war started, to nearly \$3 billion in 1865, the year the war ended. This was a colossal sum for those days but one that a prudent government could pay. At the same time, war taxes had to be reduced to less burdensome levels.

Physical devastation caused by invading armies, chiefly in the South and border  
 (15) states, had to be repaired. This herculean task was ultimately completed, but with discouraging slowness.

Other important questions needed answering. What would be the future of the four million Black people who were freed from slavery? On what basis were the Southern states to be brought back into the Union?

What of the Southern leaders, all of whom were liable to charges of treason? One  
 (20) of these leaders, Jefferson Davis, president of the Southern Confederacy, was the subject of an insulting popular Northern song, "Hang Jeff Davis from a Sour Apple Tree", and even children sang it. Davis was temporarily chained in his prison cell during the early days of his two-year imprisonment. But he and the other Southern  
 (25) leaders were finally released, partly because it was unlikely that a jury from Virginia, a Southern Confederate state, would convict them. All the leaders were finally pardoned

by President Johnson in 1868 in an effort to help reconstruction efforts proceed with as little bitterness as possible.

41. What does the passage mainly discuss?  
(A) Wartime expenditures  
(B) Problems facing the United States after the war  
(C) Methods of repairing the damage caused by the war  
(D) The results of government efforts to revive the economy
42. The word "Staggering" in line 1 is closest in meaning to  
(A) specialized (B) confusing (C) various (D) overwhelming
43. The word "devastated" in line 3 is closest in meaning to  
(A) developing (B) ruined (C) complicated (D) fragile
44. According to the passage, which of the following statements about the damage in the South is correct?  
(A) It was worse than in the North. (B) The cost was less than expected.  
(C) It was centered in the border states. (D) It was remedied rather quickly.
45. The passage refers to all of the following as necessary steps following the Civil War EXCEPT  
(A) helping soldiers readjust (B) restructuring industry  
(C) returning government to normal (D) increasing taxes
46. The word "task" in line 15 refers to  
(A) raising the tax level (B) sensible financial choices  
(C) wise decisions about former slaves (D) reconstruction of damaged areas
47. Why does the author mention a popular song in lines 22-23?  
(A) To give an example of a Northern attitude towards the South  
(B) To illustrate the Northern love of music  
(C) To emphasize the cultural differences between the North and the South  
(D) To compare the Northern and Southern presidents
48. The word "them" in line 26 refers to  
(A) charges (B) leaders (C) days (D) irons
49. Which of the following can be inferred from the phrase "...it was unlikely that a jury from Virginia, a Southern Confederate state, would convict them" (lines 25-26)?  
(A) Virginians felt betrayed by Jefferson Davis.  
(B) A popular song insulted Virginia.  
(C) Virginians were loyal to their leaders.  
(D) All of the Virginia military leaders had been put in chains.
50. It can be inferred from the passage that President Johnson pardoned the Southern leaders in order to  
(A) raise money for the North  
(B) repair the physical damage in the South  
(C) prevent Northern leaders from punishing more Southerners  
(D) help the nation recover from the war

# PRACTICE TEST 41

## October 1995

### Questions 1-13

Atmospheric pressure can support a column of water up to 10 meters high. But plants can move water much higher, the sequoia tree can pump water to its very top, more than 100 meters above the ground. Until the end of the nineteenth century, the movement of water's in trees and other tall plants was a mystery. Some botanists (5) hypothesized that the living cells of plants acted as pumps, but many experiments demonstrated that the stems of plants in which all the cells are killed can still move water to appreciable heights. Other explanations for the movement of water in plants have been based on root pressure, a push on the water from the roots at the bottom of the plant. But root pressure is not nearly great enough to push water to the tops of tall (10) trees. Furthermore, the conifers, which are among the tallest trees have unusually low root pressures.

If water is not pumped to the top of a tall tree, and if it is not pushed, to the top of a tall tree, then we may ask. How does it get there? According to the currently accepted cohesion-tension theory, water is pulled there. The pull on a rising column of water in a (15) plant results from the evaporation of water at the top of the plant. As water is lost from the surface of the leaves, a negative pressure or tension is created. The evaporated water is replaced by water moving from inside the plant in unbroken columns that extend from the top of a plant to its roots. The same forces that create surface tension in any sample of water are responsible for the maintenance of these unbroken columns (20) of water. When water is confined in tubes of very small bore, the forces of cohesion (the attraction between water molecules) are so great that the strength of a column of water compares with the strength of a steel wire of the same diameter. This cohesive strength permits columns of water to be pulled to great heights without being broken.

1. How many theories does the author mention?  
(A) One                      (B) Two                      (C) Three                      (D) Four
2. The passage answers which of the following questions ?  
(A) What is the effect of atmospheric pressure on foliage?  
(B) When do dead cells harm plant growth?  
(C) How does water get to the tops of trees?  
(D) Why is root pressure weak?
3. The word "demonstrated" in line 6 is closest in meaning to  
(A) ignored                      (B) showed                      (C) disguised                      (D) distinguished
4. What do the experiments mentioned in lines 5-7 prove?  
(A) Plant stems die when deprived of water.  
(B) Cells in plant stems do not pump water.  
(C) Plants cannot move water to high altitudes.  
(D) Plant cells regulate pressure within stems.
5. How do botanists know that root pressure is not the only force that moves water in plants?  
(A) Some very tall trees have weak root pressure.  
(B) Root pressures decrease in winter.  
(C) Plants can live after their roots die.  
(D) Water in a plant's roots is not connected to water in its stem.

6. Which of the following statements does the passage support?  
(A) Water is pushed to the tops of trees.  
(B) Botanists have proven that living cells act as pumps.  
(C) Atmospheric pressure draws water to the tops of tall trees.  
(D) Botanists have changed their theories of how water moves in plants.
7. The word "it" in line 12 refers to  
(A) top (B) tree  
(C) water (D) cohesion-tension theory
8. The word "there" in line 14 refers to  
(A) treetops (B) roots (C) water columns (D) tubes
9. What causes the tension that draws water up a plant?  
(A) Humidity (B) Plant growth (C) Root pressure (D) Evaporation
10. The word "extend" in line 18 is closest in meaning to  
(A) stretch (B) branch (C) increase (D) rotate
11. According to the passage, why does water travel through plants in unbroken columns?  
(A) Root pressure moves the water very rapidly.  
(B) The attraction between water molecules is strong.  
(C) The living cell of plants push the water molecules together.  
(D) Atmospheric pressure supports the columns.
12. Why does the author mention steel wire in line 24?  
(A) To illustrate another means of pulling water  
(B) To demonstrate why wood is a good building material  
(C) To indicate the size of a column of water  
(D) To emphasize the strength of cohesive forces in water
13. Where in the passage does the author give an example of a plant with low root pressure?  
(A) Lines 3-5 (B) Lines 6-8 (C) Lines 11-12 (D) Lines 13-14

### Questions 14-22

- Mass transportation revised the social and economic fabric of the American city in three fundamental ways. It catalyzed physical expansion, it sorted out people and land uses, and it accelerated the inherent instability of urban life. By opening vast areas of unoccupied land for residential expansion, the omnibuses, horse railways, commuter trains, and electric trolleys pulled settled regions outward two to four times more distant from city centers than they were in the premodern era. In 1850, for example, the borders of Boston lay scarcely two miles from the old business district by the turn of the century the radius extended ten miles. Now those who could afford it could live far removed from the old city center and still commute there for work, shopping, and entertainment. The new accessibility of land around the periphery of almost every major city sparked an explosion of real estate development and fueled what we now know as urban sprawl. Between 1890 and 1920, for example, some 250,000 new residential lots were recorded within the borders of Chicago, most of them located in outlying areas. Over the same period, another 550,000 were plotted outside the city limits but within the metropolitan area. Anxious to take advantage of the possibilities of commuting, real estate developers added 800,000 potential building sites to the Chicago region in just thirty years lots that could have housed five to six million



people.

Of course, many were never occupied; there was always a huge surplus of subdivided, but vacant, land around Chicago and other cities. There excesses underscore a feature of residential expansion related to the growth of mass transportation urban sprawl was essentially unplanned. It was carried out by thousands of small investors who paid little heed to coordinated land use or to future land users. Those who purchased and prepared land for residential purposes, particularly and near or outside city borders where transit lines and middle-class inhabitants were anticipated, did so to create demand as much as to respond to it. Chicago is a prime example of this process. Real estate subdivision there proceeded much faster than population growth.

14. With which of the following subjects is the passage mainly concerned?  
 (A) Types of mass transportation  
 (B) Instability of urban life  
 (C) How supply and demand determine land use  
 (D) The effects of mass trans-city portation on urban expansion
15. The author mentions all of the following as effects of mass transportation on cities EXCEPT  
 (A) growth in city area  
 (B) separation of commercial and residential districts  
 (C) changes in life in the inner city  
 (D) increasing standards of living.
16. The word "vast" in line 3 is closest in meaning to  
 (A) large (B) basic (C) new (D) urban
17. The word "sparked" in line 11 is closest in meaning to  
 (A) brought about (B) surrounded (C) sent out (D) followed
18. Why does the author mention both Boston and Chicago?  
 (A) To demonstrate positive and negative effects of growth  
 (B) To show that mass transit changed many cities  
 (C) To exemplify cities with and without mass transportation  
 (D) To contrast their rates of growth
19. The word "potential" in line 16 is closest in meaning to  
 (A) certain (B) popular (C) improved (D) possible
20. The word "many" in line 19 refers to  
 (A) people (B) lots (C) years (D) developers
21. According to the passage, what was one disadvantage of residential expansion?  
 (A) It was expensive. (B) It happened too slowly.  
 (C) It was unplanned. (D) It created a demand for public transportation.
22. The author mentions Chicago in the second paragraph as an example of a city  
 (A) that is large  
 (B) that is used as a model for land development  
 (C) where land development exceeded population growth  
 (D) with an excellent mass transportation system

**Questions 23-33**

The preservation of embryos and juveniles is a rare occurrence in the fossil record. The tiny, delicate skeletons are usually scattered by scavengers or destroyed by weathering before they can be fossilized. Ichthyosaurs had a higher chance of being preserved than did terrestrial creatures because, as marine animals, they tended to live in environments less subject to erosion. Still, their fossilization required a suite of factors: a slow rate of decay of soft tissues, little scavenging by other animals, a lack of swift currents and waves to jumble and carry away small bones, and fairly rapid burial. Given these factors, some areas have become a treasury of well-preserved ichthyosaur fossils.

Line  
(5)

- (10) The deposits at Holzmaden, Germany, present an interesting case for analysis. The ichthyosaur remains are found in black, bituminous marine shales deposited about 190 million years ago. Over the years, thousands of specimens of marine reptiles, fish, and invertebrates have been recovered from these rocks. The quality of preservation is outstanding, but what is even more impressive is the number of ichthyosaur fossils containing preserved embryos. Ichthyosaurs with embryos have been reported from 6 different levels of the shale in a small area around Holzmaden, suggesting that a specific site was used by large numbers of ichthyosaurs repeatedly over time. The embryos are quite advanced in their physical development; their paddles, for example, are already well formed. One specimen is even preserved in the birth canal.
- (20) the shale contains the remains of many newborns that are between 20 and 30 inches long.

Why are there so many pregnant females and young at Holzmaden when they are so rare elsewhere? The quality of preservation is almost unmatched and quarry operations have been carried out carefully with an awareness of the value of the fossils. But these factors do not account for the interesting question of how there came to be such a concentration of pregnant ichthyosaurs in a particular place very close to their time of giving birth.

23. The passage supports which of the following conclusions?
- (A) Some species of ichthyosaurs decayed more rapidly than other species.
  - (B) Ichthyosaur newborns are smaller than other new born marine reptiles.
  - (C) Ichthyosaurs were more advanced than terrestrial creatures.
  - (D) Ichthyosaurs may have gathered at Holzmaden to give birth.
24. The word "they" in line 3 refers to
- (A) skeletons
  - (B) scavengers
  - (C) creatures
  - (D) environments
25. All of the following are mentioned as factors that encourage fossilization EXCEPT the
- (A) speed of burying
  - (B) conditions of the water
  - (C) rate at which soft tissues decay
  - (D) cause of death of the animal
26. Which of the following is true of the fossil deposits discussed in the passage ?
- (A) They include examples of newly discovered species.
  - (B) They contain large numbers of well-preserved specimens.
  - (C) They are older than fossils found in other places.
  - (D) They have been analyzed more carefully than other fossils.

27. The word "outstanding" in line 14 is closest in meaning to  
 (A) extensive (B) surprising (C) vertical (D) excellent
28. The word "site" in line 17 is closest in meaning to  
 (A) example (B) location (C) development (D) characteristic
29. Why does the author mention the specimens preserved in the birth canal (line 21-22)?  
 (A) To illustrate that the embryo fossils are quite advanced in their development  
 (B) To explain why the fossils are well preserved  
 (C) To indicate how the ichthyosaurs died  
 (D) To prove that ichthyosaurs are marine animals
30. The word "they" in line 22 refers to  
 (A) pregnant females and young (B) quarry operations  
 (C) the value of the fossils (D) these factors
31. The phrase "account for" in line 25 is closest in meaning to  
 (A) record (B) describe (C) equal (D) explain
32. Which of the following best expresses the relationship between the first and second paragraphs?  
 (A) The first paragraph describes a place which the second paragraph describes a field of study.  
 (B) The first paragraph defines the terms that are used in the second paragraph  
 (C) The second paragraph describes a specific instance of the general topic discussed in the first paragraph  
 (D) The second paragraph presents information that contrasts with the information given in the first paragraph
33. Where in the passage does the author mention the variety of fossils found at Holzmaden?  
 (A) Line 1 (B) Lines 3-5 (C) Lines 12-13 (D) Lines 19-21

### Questions 34-41

The Lewis and Clark expedition, sponsored by President Jefferson, was the most important official examination of the high plains and the Northwest before the War of 1812. The President's secretary, Captain Meriwether Lewis, had been instructed to  
*Line* "explore the Missouri River, and such principal streams of it as, by its course and  
 (5) communication with the waters of the Pacific Ocean. . . may offer the most direct and practicable water communication across the continent, for the purposes of commerce."  
 Captain William Clark, the younger brother of famed George Rogers Clark, was invited to share the command of the exploring party.

Amid rumors that there were prehistoric mammoths wandering around the unknown  
 (10) region and that somewhere in its wilds was a mountain of rock salt 80 by 45 miles in extent, the two captains set out. The date was May 14, 1801. Their point of departure was the mouth of the Wood River, just across the Mississippi from the entrance of the Missouri River. After toiling up the Missouri all summer, the group wintered near the Mandan villages in the center of what is now North Dakota. Resuming their journey in  
 (15) the spring of 1805. The men worked their way along the Missouri to its source and then crossed the mountains of western Montana and Idaho. Picking up a tributary of the Columbia River, they continued westward until they reached the Pacific Ocean, where they stayed until the following spring.

Lewis and Clark brought back much new information, including the knowledge that  
 (20) he continent was wider than originally supposed. More specifically, they learned a good deal about river drainages and mountain barriers. They ended speculation that an

easy coast-to-coast route existed via the Missouri-Columbia River systems, and their reports of the climate, the animals and birds, the trees and plants, and the Indians of the West – though not immediately published – were made available to scientists.

34. With what topic is the passage primarily concerned?  
(A) The river systems of portions of North America  
(B) Certain geological features of the North America  
(C) An exploratory trip sponsored by the United States government  
(D) The discovery of natural resources in the United States
35. According to the passage, the primary purpose of finding a water route across the continent was to  
(A) gain easy access to the gold and other riches of the Northwest  
(B) become acquainted with the inhabitants of the West  
(C) investigate the possibility of improved farmland in the West  
(D) facilitate the movement of commerce across the continent
36. The river Meriwether Lewis was instructed to explore was the  
(A) Wood (B) Missouri (C) Columbia (D) Mississippi
37. According to the passage, the explorers spent their first winter in what would become  
(A) North Dakota (B) Missouri (C) Montana (D) Idaho
38. The author states that Lewis and Clark studied all of the following characteristics of the explored territories EXCEPT  
(A) mineral deposits (B) the weather  
(C) animal life (D) native vegetation
39. The phrase "Picking up" in line 16 could best be replaced by which of the following?  
(A) Searching for (B) Following  
(C) Learning about (D) Lifting
40. It can be inferred from the passage that prior to the Lewis and Clark expedition the size of the continent had been  
(A) of little interest (B) underestimated  
(C) known to native inhabitants of the West (D) unpublished but known to most scientists
41. Where in the passage does the author refer to the explorers' failure to find an easy passageway to the western part of the continent?  
(A) Lines 1-3 (B) Lines 7-8 (C) Lines 16-18 (D) Lines 21-24

**Question 42-50**

For a century and a half the piano has been one of the most popular solo instruments for Western music. Unlike string and wind instruments, the piano is completely self-sufficient, as it is able to play both the melody and its accompanying harmony at the same time. For this reason, it became the favorite household instrument of the nineteenth century.

Line (5)

The ancestry of the piano can be traced to the early keyboard instruments of the fifteenth and sixteenth centuries—the spinet, the dulcimer, and the virginal. In the seventeenth century the organ, the clavichord, and the harpsichord became the chief instruments of the keyboard group, a supremacy they maintained until the piano

- (10) supplanted them at the end of the eighteenth century. The clavichord's tone was metallic and never powerful, nevertheless, because of the variety of tone possible to it, many composers found the clavichord a sympathetic instrument for intimate chamber music. The harpsichord with its bright, vigorous tone was the favorite instrument for supporting the bass of the small orchestra of the period and for concert use but the character of the tone could not be varied save by mechanical or structural devices .
- (15)

The piano was perfected in the early eighteenth century by a harpsichord maker in Italy (though musicologists point out several previous instances of the instrument). This instrument was called a piano e forte (soft Mid loud), to indicate its dynamic versatility; its strings were struck by a recoiling hammer with a felt-padded head. The

- (20) wires were much heavier in the earlier instruments. A series of mechanical improvements continuing well into the nineteenth century, including the introduction of pedals to sustain tone or to soften it, the perfection of a metal frame, and steel wire of the finest quality, finally produced an instrument capable of myriad tonal effects from the most delicate harmonies to an almost orchestral fullness of sound, from a liquid, singing tone to sharp, percussive brilliance.

42. What does the passage mainly discuss ?  
 (A) The historical development of the piano  
 (B) The quality of tone produced by various keyboard instrument  
 (C) The uses of keyboard instruments in various types of compositions  
 (D) The popularity of the piano with composers
43. Which of the following instruments was widely used before the seventeenth century?  
 (A) The harpsichord (B) The spinet  
 (C) The clavichord (D) The organ
44. The words "a supremacy" in line 9 are closest in meaning to  
 (A) a suggestion (B) an improvement  
 (C) a dominance (D) a development
45. The word "supplanted" in line 10 is closest in meaning to  
 (A) supported (B) promoted (C) replaced (D) dominated
46. The word "it" in line 11 refers to the  
 (A) variety (B) music (C) harpsichord (D) clavichord
47. According to the passage, what deficiency did the harpsichord have?  
 (A) It was fragile. (B) It lacked variety in tone.  
 (C) It sounded metallic. (D) It could not produce a strong sound.
48. Where in the passage does the author provide a translation?  
 (A) Lines 4-5 (B) Lines 13-15 (C) Lines 18-19 (D) Lines 20-25
49. According to the information in the third paragraph , which of the following improvements made it possible to lengthen the tone produced by the piano?  
 (A) The introduction of pedals (B) The use of heavy wires  
 (C) The use of felt-padded hammerhead's (D) The metal frame construction
50. The word "myriad" in line 23 is closest in meaning to  
 (A) noticeable (B) many (C) loud (D) unusual

# PRACTICE TEST 42

## December 1995

### Questions 1-10

Another early Native American tribe in what is now the southwestern part of the United States was the Anasazi. By A. D. 800 the Anasazi Indians were constructing multistory pueblos-massive, stone apartment compounds. Each one was virtually a stone town, which is why the Spanish would later call them pueblos, the Spanish word for towns. These pueblos represent one of the Anasazis' supreme achievements. At least a dozen large stone houses took shape below the bluffs of Chiacco Canyon in northwest New Mexico. They were built with masonry walls more than a meter thick and adjoining apartments to accommodate dozens, even hundreds, of families. The largest, later named Pueblo Bonito (Pretty Town) by the Spanish, rose in five terraced stories, contained more than 800 rooms, and could have housed a population of 1,000 or more.

Besides living quarters, each pueblo included one or more kivas-circular underground chambers faced with stone. They functioned as sanctuaries where the elders met to plan festivals, perform ritual dances, settle pueblo affairs, and impart tribal lore to the younger generation. Some kivas were enormous. Of the 30 or so at pueblo Bonito, two measured 20 meters across. They contained niches for ceremonial objects, a central fire pit, and holes in the floor for communicating with the spirits of tribal ancestors.

Each pueblo represented an astonishing amount of well-organized labor. Using only stone and wood tools, and without benefit of wheels or draft animals, the builders quarried ton upon ton of sandstone from the canyon walls, cut it into small blocks, hauled the blocks to the construction site, and fitted them together with mud mortar. Roof beams of pine or fir had to be carried from logging areas in the mountain forests many kilometers away. Then, to connect the pueblos and to give access to the surrounding tableland, the architects laid out a system of public roads with stone staircases for ascending cliff faces. In time, the roads reached out to more than 80 satellite villages within a 60-kilometer radius.

- The paragraph preceding the passage most  
(A) how pueblos were built  
(B) another Native American tribe  
(C) Anasazi crafts and weapons  
(D) Pueblo village in New Mexico
- What is the main topic of the passage?  
(A) The Anasazi pueblos  
(B) Anasazi festivals of New Mexico  
(C) The organization of the Anasazi tribe  
(D) The use of Anasazi sanctuaries
- The word "supreme" in line 5 is closest in meaning to  
(A) most common  
(B) most outstanding  
(C) most expensive  
(D) most convenient
- The word "They" in line 7 refers to  
(A) houses  
(B) bluffs  
(C) walls  
(D) families
- The author mentions that Pueblos bonito had more than 800 rooms as an example of which of the following?  
(A) How overcrowded the pueblos could be  
(B) How many ceremonial areas it contained  
(C) How much sandstone was needed to build it

- (D) How big a pueblo could be
6. The word "settle" in line 14 is closest in meaning to  
 (A) sink (B) decide (C) clarify (D) locate
7. It can be inferred from the passage that building a pueblo probably  
 (A) required many workers (B) cost a lot of money  
 (C) involved the use of farm animals (D) relied on sophisticated technology
8. The word "ascending" in line 26 is closest in meaning to  
 (A) arriving at (B) carving (C) connecting (D) climbing
9. It can be inferred from the passage that in addition to pueblos the Anasazis were skilled at building which of following?  
 (A) Roads (B) Barns (C) Monuments (D) Water systems
10. The pueblos are considered one of the Anasazis' supreme achievements for all of the following reasons EXCEPT that they were  
 (A) very large (B) located in forests  
 (C) built with simple tools (D) connected in a systematic way

### Questions 11-21

- Accustomed though we are to speaking of the films made before 1927 as "silent", the film has never been, in the full sense of the word, silent. From the very beginning, music was regarded as an indispensable accompaniment; when the Lumiere films were shown at the first public film exhibition in the United States in February 1896, they were accompanied by piano improvisations on popular tunes. At first, the music played bore no special relationship to the films; an accompaniment of any kind was sufficient. Within a very short time, however, the incongruity of playing lively music to a solemn film became apparent, and film pianists began to take some care in matching their pieces to the mood of the film.
- (5) As movie theaters grew in number and importance, a violinist, and perhaps a cellist, would be added to the pianist in certain cases, and in the larger movie theaters small orchestras were formed. For a number of years the selection of music for each film program rested entirely in the hands of the conductor or leader of the orchestra, and very often the principal qualification for holding such a position was not skill or taste so much as the ownership of a large personal library of musical pieces. Since the conductor seldom saw the films until the night before they were to be shown (if, indeed, the conductor was lucky enough to see them then), the musical arrangement was normally improvised in the greatest hurry.
- (10) To help meet this difficulty, film distributing companies started the practice of publishing suggestions for musical accompaniments. In 1909, for example, the Edison Company began issuing with their films such indications of mood as "pleasant", "sad", "lively". The suggestions became more explicit, and so emerged the musical cue sheet containing indications of mood, the titles of suitable pieces of music, and precise directions to show where one piece led into the next.
- (15) Certain films had music especially composed for them. The most famous of these early special scores was that composed and arranged for D. W. Griffith's film *Birth of a Nation*, which was released in 1915.
- (20)
- (25)

11. The passage mainly discusses music that was  
(A) performed before the showing of a film  
(B) played during silent films  
(C) specifically composed for certain movie theaters  
(D) recorded during film exhibitions
12. What can be inferred that the passage about the majority of films made after 1927?  
(A) They were truly "silent".  
(B) They were accompanied by symphonic orchestras.  
(C) They incorporated the sound of the actors' voices.  
(D) They corresponded to specific musical compositions.
13. The word "solemn" in line 7 is closest in meaning to  
(A) simple                      (B) serious                      (C) short                      (D) silent
14. It can be inferred that orchestra conductors who worked in movie theaters needed to  
(A) be able to play many instruments                      (B) have pleasant voices  
(C) be familiar with a wide variety of music                      (D) be able to compose original music
15. The word "them" in line 17 refers to  
(A) years                      (B) hands                      (C) pieces                      (D) films
16. According to the passage, what kind of business was the Edison Company?  
(A) It produced electricity.                      (B) It distributed films.  
(C) It published musical arrangements.                      (D) It made musical instruments.
17. It may be inferred from the passage that the first musical cue sheets appeared around  
(A) 1896                      (B) 1909                      (C) 1915                      (D) 1927
18. Which of the following notations is most likely to have been included on a musical cue sheet of the early 1900's?  
(A) "Calm, peaceful"                      (B) "Piano, violin"  
(C) "Key of C major"                      (D) "Directed by D. W. Griffith"
19. The word "composed" in line 26 is closest in meaning to  
(A) selected                      (B) combined                      (C) played                      (D) created
20. The word "scores" in line 26 is closest in meaning to  
(A) totals                      (B) successes  
(C) musical compositions                      (D) groups of musicians
21. The passage probably continues with a discussion of  
(A) famous composers of the early twentieth century  
(B) other films directed by D. W. Griffith  
(C) silent films by other directors  
(D) the music in *Birth of a Nation*



### Questions 22-31

The Earth comprises three principal layers: the dense, iron-rich core, the mantle made of silicate rocks that are semimolten at depth, and the thin, solid-surface crust. There are two kinds of crust, a lower and denser oceanic crust and an upper, lighter continental crust found over only about 40 percent of the Earth's surface. The rocks of the crust are of very different ages. Some continental rocks are over 3,000 million years old, while those of the ocean flow are less than 200 million years old. The crusts and the top, solid part of the mantle, totaling about 70 to 100 kilometers in thickness, at present appear to consist of about 15 rigid plates, 7 of which are very large. These plates move over the semimolten lower mantle to produce all of the major topographical features of the Earth. Active zones where intense deformation occurs are confined to the narrow, interconnecting boundaries of contact of the plates.

There are three main types of zones of contact: spreading contacts where plates move apart, converging contacts where plates move towards each other, and transform contacts where plates slide past each other. New oceanic crust is formed along one or more margins of each plate by material issuing from deeper layers of the Earth's crust, for example, by volcanic eruptions of lava at midocean ridges. If at such a spreading contact the two plates support continents, a rift is formed that will gradually widen and become flooded by the sea. The Atlantic Ocean formed like this as the American and Afro-European plates move in opposite directions. At the same time at margins of converging plates, the oceanic crust is being reabsorbed by being subducted into the mantle and remelted beneath the ocean trenches. When two plates carrying continents collide, the continental blocks, too light to be drawn down, continue to float and therefore buckle to form a mountain chain along the length of the margin of the plates.

22. The word "comprises" in line 1 is closest in meaning to  
 (A) adapts to                      (B) benefits from                      (C) consists of                      (D) focuses on
23. According to the passage, on approximately what percent of the Earth's surface is the continental crust found?  
 (A) 15                                      (B) 40                                      (C) 70                                      (D) 100
24. The word "which" in line 8 refers to  
 (A) crusts                                      (B) kilometers                                      (C) plates                                      (D) continents
25. The word "intense" in line 10 is closest in meaning to  
 (A) surface                                      (B) sudden                                      (C) rare                                      (D) extreme
26. What does the second paragraph of the passage mainly discuss?  
 (A) The major mountain chains of the Earth  
 (B) Processes that create the Earth's surface features  
 (C) The composition of the ocean floors  
 (D) The rates at which continents move
27. ???
28. The word "margins" in line 15 is closest in meaning to  
 (A) edges                                      (B) peaks                                      (C) interiors                                      (D) distances
29. The word "support" in line 17 is closest in meaning to

- (A) separate                      (B) create                      (C) reduce                      (D) hold

30. According to the passage, mountain range are formed when  
(A) the crust is remelted                      (B) two plates separate  
(C) a rift is flooded                      (D) continental plates collide
31. Where in the passage does the author describe how oceans are formed?  
(A) Lines 3-4                      (B) Lines 6-8                      (C) Lines 16-18                      (D) Lines 19-21

**Questions 32-40**

Coincident with concerns about the accelerating loss of species and habitats has been a growing appreciation of the importance of biological diversity, the number of species in a particular ecosystem, to the health of the Earth and human well-being.

Line Much has been written about the diversity of terrestrial organisms, particularly the  
(5) exceptionally rich life associated with tropical rain-forest habitats. Relatively little has been said, however, about diversity of life in the sea even though coral reef systems are comparable to rain forests in terms of richness of life.

An alien exploring Earth would probably give priority to the planet's dominants, most-distinctive feature-the ocean. Humans have a bias toward land that sometimes  
(10) gets in the way of truly examining global issues. Seen from far away, it is easy to realize that landmasses occupy only one-third of the Earth's surface. Given that two-thirds of the Earth's surface is water and that marine life lives at all levels of the ocean, the total three-dimensional living space of the ocean is perhaps 100 times greater than that of land and contains more than 90 percent of all life on Earth even though the  
(15) ocean has fewer distinct species.

The fact that half of the known species are thought to inhabit the world's rain forests does not seem surprising, considering the huge numbers of insects that comprise the bulk of the species. One scientist found many different species of ants in just one tree from a rain forest. While every species is different from every other species, their  
(20) genetic makeup constrains them to be insects and to share similar characteristics with 750,000 species of insects. If basic, broad categories such as phyla and classes are given more emphasis than differentiating between species, then the greatest diversity of life is unquestionably the sea. Nearly every major type of plant and animal has some representation there.

(25) To appreciated fully the diversity and abundance of life in the sea, it helps to think small. Every spoonful of ocean water contains life, on the order of 100 to 100,000 bacterial cells plus assorted microscopic plants and animals, including larvae of organisms ranging from sponges and corals to starfish and clams and much more.

32. What is the main point of the passage?  
(A) Humans are destroying thousands of species.  
(B) There are thousands of insect species.  
(C) The sea is even richer in life than the rain forests.  
(D) Coral reefs are similar to rain forests.
33. The word "appreciation" in line 2 is closest in meaning to  
(A) ignorance                      (B) recognition                      (C) tolerance                      (D) forgiveness
34. Why does the author compare rain forests and coral reefs (lines 4-7)?  
(A) They are approximately the same size.  
(B) They share many similar species.

- (C) Most of the their inhabitants require water.  
 (D) Both have many different forms of life.
35. The word "bias" in line 9 is closest in meaning to  
 (A) concern (B) disadvantage (C) attitude (D) prejudice
36. The passage suggests that most rain forest species are  
 (A) insects (B) bacteria (C) mammals (D) birds
37. The word "there" in line 24 refers to  
 (A) the sea (B) the rain forests (C) a tree (D) the Earth's surface
38. The author argues that there is more diversity of life in the sea than in the rain forests because  
 (A) more phyla and classes of life are represented in the sea  
 (B) there are too many insects to make meaningful distinctions  
 (C) many insect species are too small to divide into categories  
 (D) marine life-forms reproduce at a faster rate
39. Which of the following is NOT mentioned as an example of microscopic sea life?  
 (A) Sponges (B) Coral (C) Starfish (D) Shrimp
40. Which of the following conclusions is supported by the passage?  
 (A) Ocean life is highly adaptive.  
 (B) More attentions needs to be paid to preserving ocean species and habitats.  
 (C) Ocean life is primarily composed of plants.  
 (D) The sea is highly resistant to the damage done by pollutants.

### Questions 41-50

What geologists call the Basin and Range Province in the United States roughly coincides in its northern portions with the geographic province known as the Great Basin. The Great Basin is hemmed in on the west by the Sierra Nevada and on the east  
*Line* by the Rocky Mountains; it has no outlet to the sea. The prevailing winds in the Great  
 (5) Basin are from the west. Warm, moist air from the Pacific Ocean is forced upward as it crosses the Sierra Nevada. At the higher altitudes it cools and the moisture it carries is precipitated as rain or snow on the western slopes of the mountains. That which reaches the Basin is air wrung dry of moisture. What little water falls there as rain or snow, mostly in the winter months, evaporates on the broad, flat desert floors. It is,  
 (10) therefore, an environment in which organisms battle for survival. Along the rare watercourses, cottonwoods and willows eke out a sparse existence. In the upland ranges, pinon pines and junipers struggle to hold their own.

But the Great Basin has not always been so arid. Many of its dry, closed depressions were once filled with water. Owens Valley, Panamint Valley, and Death Valley were  
 (15) once a string of interconnected lakes. The two largest of the ancient lakes of the Great Basin were Lake Lahontan and Lake Bonneville. The Great Salt Lake is all that remains of the latter, and Pyramid Lake is one of the last briny remnants of the former. There seem to have been several periods within the last tens of thousands of years when water accumulated in these basins. The rise and fall of the lakes were  
 (20) undoubtedly linked to the advances and retreats of the great ice sheets that covered much of the northern part of the North American continent during those times. Climatic changes during the Ice ages sometimes brought cooler, wetter weather to midlatitude deserts worldwide, including those of the Great Basin. The broken valleys of the Great Basin provided ready receptacles for this moisture.

41. What is the geographical relationship between the Basin and Range Province and the Great Basin?  
(A) The Great Basin is west of the Basin and Range Province.  
(B) The Great Basin is larger than the Basin and Range Province.  
(C) The Great Basin is in the northern part of the Basin and Range Province.  
(D) The Great Basin is mountainous; the Basin and Range Province is flat desert.
42. According to the passage, what does the great Basin lack?  
(A) Snow  
(B) Dry air  
(C) Winds from the west  
(D) Access to the ocean
43. The word "prevailing" in line 4 is closest in meaning to  
(A) most frequent  
(B) occasional  
(C) gentle  
(D) most dangerous
44. It can be inferred that the climate in the Great Basin is dry because  
(A) the weather patterns are so turbulent  
(B) the altitude prevents precipitation  
(C) the winds are not strong enough to carry moisture  
(D) precipitation falls in the nearby mountains
45. The word "it" in line 5 refers to  
(A) Pacific Ocean  
(B) air  
(C) west  
(D) the Great Basin
46. Why does the author mention cottonwoods and willows in line 11?  
(A) To demonstrate that certain trees require a lot of water  
(B) To give examples of trees that are able to survive in a difficult environment  
(C) To show the beauty of the landscape of the Great Basin  
(D) To assert that there are more living organisms in the Great Basin than there used to be
47. Why does the author mention Owens Valley, Panamint Valley, and Death Valley in the second paragraph?  
(A) To explain their geographical formation  
(B) To give examples of depressions that once contained water  
(C) To compare the characteristics of the valleys with the characteristics of the lakes  
(D) To explain what the Great Basin is like today
48. The words "the former" in line 17 refer to  
(A) Lake Bonneville  
(B) Lake Lahontan  
(C) The Great Salt Lake  
(D) Pyramid Lake
49. The word "accumulated" in line 19 is closest in meaning to  
(A) dried  
(B) flooded  
(C) collected  
(D) evaporated
50. According to the passage, the Ice Ages often brought about  
(A) desert formation  
(B) warmer climates  
(C) broken valleys  
(D) wetter weather

# PRACTICE TEST 43

## January 1994

### Passage 1

Taking natural objects such as rocks, bones, clouds and flowers for subject matter, Georgia O'Keeffe reduced them to their simplest form, often by employing a close-up view or some other unusual vantage point. With such techniques, including the use of thin paint and clear colors to emphasize a feeling of mystical silence and space, she achieved an abstract simplicity in her paintings. O'Keeffe spent a summer in New Mexico in 1929 and the bleak landscape and broad skies of the desert so appealed to her that she later settled there permanently. Cows skulls and other bare bones found in the desert were frequent motifs in her paintings. Other common subjects included flowers, the sky, and the horizon lines of the desert. After O'Keeffe's three-month trip around the world by plane in 1959, the sky "paved with clouds" as seen from an airplane also became one of her favorite motifs and the subject of her largest work, a 24-foot mural that she began in 1966.

1. In the first sentence of the passage, the author explains O'Keeffe's
  - (A) popularity with art critics despite her unusual choice of subject matter
  - (B) reasons for painting one kind of object rather than another
  - (C) skillful use of photography in selecting her subject matter
  - (D) efforts to portray the objects she painted in their simplest form
2. With what subject is the passage mainly concerned?
  - (A) Georgia O' Keeffe's trip around the world
  - (B) The private life of Georgia O' Keeffe
  - (C) The paintings of Georgia O'Keeffe
  - (D) Georgia O'keeffe's greatest work of art
3. Which of the following is an example of something often painted by O'Keeffe?
  - (A) An airport
  - (B) A deserted street
  - (C) An astronaut in outer space
  - (D) A cloud formation
4. With which of the following statements concerning Georgia O'Keeffe's paintings would the author of the passage be most likely to agree.
  - (A) They generally create a sense of stillness and open space
  - (B) They are so realistic that they often resemble ordinary photographic images
  - (C) Most of them are portraits of the painter's friends and relatives
  - (D) They represent humans in an eternal struggle with the forces of nature
5. Which of the following aspects of the desert landscape is NOT mentioned by the author as one that attracted O'Keeffe's attention?
  - (A) Bones
  - (B) Sand
  - (C) The sky
  - (D) Flowers

## Passage 2

Researchers have found that migrating animals use a variety of inner compasses to help them navigate. Some steer by the position of the Sun. Others navigate by the stars. Some use the Sun as their guide during the day, and then switch to star navigation by night. One study shows that the homing pigeon uses the Earth's magnetic fields as a guide in finding its way home, and there are indications that various other animals, from insects to mollusks, can also make use of magnetic compasses. It is of course very useful for a migrating bird to be able to switch to a magnetic compass when clouds cover the Sun otherwise it would just have to land and wait for the Sun to come out again.

Even with the Sun or stars to steer by the problems of navigation are more complicated than they might seem at first. For example a worker honeybee that has found a rich source of nectar and pollen flies rapidly home to the hive to report. A naturalist has discovered that the bee scout delivers her report through a complicated dance in the hive, in which she tells the other workers not only how far away the food is, but also what direction to fly in relation to the Sun. But the Sun does not stay in one place all day. As the workers start out to gather the food the Sun may already have changed its position in the sky somewhat. In later trips during the day the Sun will seem to move farther and farther toward the west. Yet the worker bees seem to have no trouble at all in finding the food source. Their inner clocks tell them just where the Sun will be, and they change their course correspondingly.

1. What is the main idea of the passage?  
(A) Bees communicate with each other by dancing  
(B) Animals have internal steering devices  
(C) The Sun is necessary for animal navigation  
(D) The Earth's magnetic fields guide pigeons home
2. The author mentions all of the following natural phenomena that help animals navigate EXCEPT  
(A) the Sun                      (B) the stars                      (C) magnetic fields                      (D) wind direction
3. What makes it necessary for a bird to rely on a magnetic compass when navigating?  
(A) The possibility of bad weather                      (B) The constant motion of the Sun  
(C) Its patterns of migration                      (D) Its need to constantly change homes
4. In line 10, the word "rich" means  
(A) wealthy                      (B) abundant                      (C) comical                      (D) meaningful
5. According to the passage what information does the dance of the scout bee communicate to the other worker bees?  
(A) The time of day                      (B) What the weather is like  
(C) How far away the food is                      (D) Which flowers the scout has found
6. What enables the bees to steer by the Sun even though the Sun's position is not fixed?  
(A) They are equipped with biological time clocks  
(B) They fly in formation behind the scout bee  
(C) They have excellent eyesight  
(D) They have long memories
7. Which of the following is an example of an animal using an inner compass as described in the passage?  
(A) Mother chimpanzees caring for and grooming their young  
(B) Turtles traveling miles through the sea to lay eggs on an island  
(C) Wolves fighting each other for territorial rights  
(D) Lions stalking their prey without having seen it

### Passage 3

Thomas Alva Edison, the symbolic proprietor of the burgeoning electrical industry, stressed a preference for plain figuring over scientific formulas. "Oh, these mathematicians make me tired!" he once gibed. "When you ask them to work out a sum they take a piece of paper, cover it with rows of A's, B's, and X's, Y's, . . . scatter a mess of flyspecks over them, and give you an answer that's all wrong." Nonetheless, while Edison's approach to invention was often cut-and-try, it was highly systematic. His laboratory at Menlo Park, New Jersey, was equipped with a rich variety of scientific instruments, and its library shelves included the latest scientific books as well as periodicals. Edison also employed some scientists, including the mathematical physicist Francis R. Upton. But Americans of the day, with no small encouragement from the inventor himself, typically thought of Edison as the practical, unschooled inventor who needed no science. And it was true that neither mathematical nor scientific training necessarily made ordinary mortals a match for Edison's kind of genius.

- What is the main idea of the passage?
  - Mathematicians and scientists use different formulas
  - Inventors need well - equipped laboratories
  - Francis Upton was critical to Edison's success
  - Thomas Edison was an unconventional genius
- In line 3, the word "them" refers to which of the following?
 

(A) Mathematicians	(B) Flyspecks
(C) Formulas	(D) Rows
- It can be inferred from the description of his workplace that Edison
  - used only expensive scientific instruments
  - wrote articles regularly for magazines
  - spent much time cataloging his books
  - kept abreast of recent scientific developments
- Which of the following is closest in meaning to the phrase "Americans of the day" as it is used in line 9?
  - Americans who were respected inventors of Edison's time
  - Americans who lived during Edison's time
  - Americans who worked with Edison on a daily basis
  - Americans who didn't use Edison's electrical inventions
- According to the passage, Edison liked people to think that he was a
 

(A) person who did experiments on flies	(B) laboratory designer
(C) self-taught inventor	(D) scientist with an excellent education
- The author describes other scientists and mathematicians as "ordinary mortals"(line12)to indicate that
  - their abilities were inferior to Edison's
  - Edison desired to be more like them
  - competition among scientists was common
  - Edison was deeply interested in mythology
- Where in the passage does the author mention Edison's working style?
 

(A) Lines 3-5	(B) Lines 5-6
(C) Lines 8-9	(D) Lines 11-12

Passage 4

Just how salt became so crucial to our metabolism is a mystery; one appealing theory traces our dependence on it to the chemistry of the late Cambrian seas. It was there, a half-billion years ago, that tiny metazoan organisms first evolved systems for sequestering and circulating fluids. The water of the early oceans might thus have become the chemical prototype for the fluids of all animal life—the medium in which cellular operations could continue no matter how the external environment changed. This speculation is based on the fact that, even today, the blood serums of radically divergent species are remarkably similar. Lizards, platypuses, sheep, and humans could hardly be more different in anatomy or eating habits, yet the salt content in the fluid surrounding their blood cells is virtually identical.

As early marine species made their way to freshwater and eventually to dry land, sodium remained a key ingredient of their interior, if not their exterior, milieu. The most successful mammalian species would have been those that developed efficient hormonal systems for maintaining the needed sodium concentrations. The human body, for example, uses the hormones rennin, angiotensin, and aldosterone to retain or release tissue fluids and blood plasma. The result, under favorable conditions, is a dynamic equilibrium in which neither fluid volume nor sodium concentration fluctuates too dramatically. But if the body is deprived of salt, the effects soon become dangerous, despite compensatory mechanisms.

1. Which of the following best describes the main subject of the passage.  
(A) The effects of salt deprivation  
(B) Evolutionary changes involving salt  
(C) The salt needs of lizards and platypuses  
(D) Hormonal systems for adjusting salt levels
2. What did the paragraph preceding the passage most probably discuss?  
(A) Methods of mining salt  
(B) Ancient beliefs about the powers of salt  
(C) How humans used salt during the Cambrian period  
(D) The importance of salt to our metabolism
3. According to the passage, which of the following species was probably the first to utilize salt in some way?  
(A) Sheep  
(B) Lizards  
(C) Early human beings  
(D) Early marine organisms
4. What evidence does the author give to support the theory that the salt water of the prehistoric oceans became the fluid for all animal life?  
(A) Unrelated species now have identical salt levels in their blood.  
(B) All species today require salt.  
(C) The oceans today are less salty than in the Cambrian period.  
(D) Most mammals get sick if they drink large quantities of salty water
5. The author implies that those species that did not evolve ways of maintaining their salt levels probably  
(A) ceased to require salt  
(B) returned to the sea  
(C) had difficulty surviving  
(D) lived in fresh water
6. Which of the following is NOT mentioned in the passage as a hormone involved in human sodium regulation?  
(A) Rennin  
(B) Adrenaline  
(C) Angiotensin  
(D) Aldosterone
7. In line 16, the word "dramatically" could best be replaced by  
(A) greatly  
(B) loudly  
(C) lyrically  
(D) theatrically



## Passage 5

One of the more discernible trends in the financial - service industry in recent times has been the adoption of programs designed to encourage more personalized relationships between an institution's employees and its clients, particularly those clients who are major depositors. The expression most commonly used to describe this type of program is "relationship banking". A good definition is provided in the 1985 book *Marketing Financial Services*:

In relationship banking the emphasis is on establishing a long-term multiple - service relationship; on satisfying the totality of the client's financial service needs; on minimizing the need or desire of clients to splinter their financial business among various institutions.

Implicit within any definition of relationship banking is recognition that the financial - service requirements of one individual or relatively homogeneous group will likely be substantially different from those of another individual or group. A successful relationship banking program is therefore dependent in a large part on the development of a series of financial - service "packages" each designed to meet the needs of identifiable homogeneous groups.

Another dimension of relationship banking is the development of highly personalized relationships between employee and client. In most financial institutions today the client is serviced by any employee who happens to be free at the time regardless of the nature of the transaction. Personalized relationships are therefore difficult to establish. In a full relationship banking program, however, the client knows there is one individual within the institution who has intimate knowledge of the client's requirements and preferences regarding complex transactions. Over time, the client develops a high level of confidence in this employee. In short, a personalized relationship evolves between client and employee.

1. With what subject is the passage mainly concerned?
  - (A) The decline of the financial-service industry
  - (B) Variety within financial services
  - (C) A way of making banking more personal
  - (D) Increasing everyday banking transactions
  
2. Which of the following can be inferred from the passage about relationship banking programs?
  - (A) They have recently been discontinued
  - (B) They are already being used
  - (C) They will shortly be used
  - (D) They will be used in the distant future
  
3. According to the definition of relationship banking quoted in the passage, one of the main aims of this type of banking is to encourage clients to
  - (A) consult with each other concerning their finances
  - (B) keep all their business with a single bank
  - (C) recognize their own banking needs
  - (D) keep their financial requirements to a minimum
  
4. According to the passage, what is a necessary first step in instituting relationship banking?
  - (A) Redesigning bank buildings

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- (B) Hiring congenial staff who make client'. welcome
- (C) Recognizing the particular financial needs of groups and individuals
- (D) Teaching bank employees to be more confident.

# PRACTICE TEST 44

## May 1994

### Passage 1

Canals are watercourses constructed to improve and extend natural waterways. They are generally built to facilitate transportation, but from the beginning they have been used for many additional purposes including draining swamps, irrigating land for cultivation and promoting economic development.

Canals are often classified by the size of vessel they can accommodate. Some small local canals, which are able to float only 100 - to 300 - ton boats or small rafts of timber, may be only 3 feet deep. Major barge canals generally range from 6 to 9 feet in depth, and some are as much as 10 or 12 feet deep. These canals can carry 1,350 - to 2,000 - ton crafts. Ship canals are 25 feet or more deep and are capable of accommodating large vessels in the seagoing class.

Canals may also be classified as either water - level or lock canals. Water - level canals do not vary in height along their courses. The best known of these is the Suez Canal, which is at sea level. Lock canals, which include most modern waterways, contain locks, or special devices for raising and lowering boats along their courses by changing the depth of the water. Each lock is a stretch of water enclosed by gates at each end. After a boat enters the lock, water is let in or drained out until it reaches approximately the same level as the water ahead.

1. What does the passage mainly discuss?  
(A) How canals are constructed  
(B) Common types of canal boats and barges  
(C) The world's largest canals  
(D) How canals are used and classified
2. The canals mentioned in the second paragraph are grouped according to their  
(A) depth  
(B) length  
(C) attitude  
(D) location
3. The word "accommodating" in line 9 could best be replaced by  
(A) weighing  
(B) loading  
(C) handing  
(D) storing
4. What is the purpose of a canal lock?  
(A) To keep out boats that are too large for the canal  
(B) To measure the tonnage of canal boat  
(C) To load and unload the cargo  
(D) To change the depth of the water
5. The Suez Canal is mentioned as an example of a  
(A) modern canal  
(B) water - level canal  
(C) lock canal  
(D) irrigation canal

Passage 2

Some of the most beautiful caves are formed in glaciers. Streams of melting ice and snow tunnel through the glaciers the same way that water from a faucet melts its way through an ice cube. Water from the surface drips down through cracks, hollowing out the tunnels and decorating the caves with crystal icicles. The smooth walls and floors are so glasslike that pebbles frozen six feet deep can easily be seen. Crystal - clear icicles draping from the ceilings flash blue - green, as though they were carved from precious jewels instead of ice.

Although most of the cave ice in the United States is found in lava caves, there are a number of limestone ice caves as well. Some people believe that this ice was formed thousands of years ago, when temperatures were much colder than they are today. Others think that the cave ice broke off from the ancient glaciers as they spread over the country.

Today many cave scientists have another idea. They believe that cold water sinks down through cracks into these caves until the temperature is chilly enough to freeze the water that seeps in. The ice that forms keeps the cave cool, and that helps build up still more ice. Many caves become covered with so much ice that no one knows just how thick it is. In some, such as Crystal Falls Cave in Idaho, there are frozen rivers and even frozen water -falls. Native Americans and early settlers used to store food in these underground refrigerators and chip out blocks of ice to melt for drinking water.

1. What does the passage mainly discuss?  
(A) Characteristics of glaciers  
(B) Uses for ice caves  
(C) The origin of cave ice  
(D) Where glaciers can be found
2. The word "its" in line 2 refers to  
(A) faucet  
(B) water  
(C) glacier  
(D) tunnel
3. The word "draping" in line 5 is closest in meaning to which of the following?  
(A) Shining  
(B) Hanging  
(C) Dripping  
(D) Forming
4. The author compares icicles to precious jewels based on which of the following?  
(A) Appearance  
(B) Cost  
(C) Method of formation  
(D) Availability
5. Where is most of the cave ice in the United States found?  
(A) In lava caves  
(B) In ancient glaciers  
(C) On cave ceilings  
(D) In cave cracks
6. According to many of today's cave scientists, what causes ice to build up in caves?  
(A) Rivers and waterfalls supply water  
(B) Icicles accumulate on the ceilings  
(C) Cave ice breaks off glaciers  
(D) Cold water seeps in and freezes
7. It can be inferred from the passage that the early settlers in the United States appreciated the ice caves for their  
(A) practicality  
(B) beautiful interiors  
(C) historical value  
(D) precious gems

### Passage 3

Cells cannot remain alive outside certain limits of temperature, and much narrower limits mark the boundaries of effective functioning. Enzyme systems of mammals and birds are most efficient only within a narrow range around 37°C; a departure of a few degrees from this value seriously impairs their functioning. Even though cells can survive wider fluctuations, the integrated actions of bodily systems are impaired. Other animals have a wider tolerance for changes of bodily temperature.

For centuries it has been recognized that mammals and birds differ from other animals in the way they regulate body temperature. Ways of characterizing the difference have become more accurate and meaningful over time, but popular terminology still reflects the old division into "warm - blooded" and "cold - blooded" species; warm - blooded included mammals and birds, whereas all other creatures were considered cold - blooded. As more species were studied, it became evident that this classification was inadequate. A fence lizard or a desert iguana—each cold - blooded—usually has a body temperature only a degree or two below that of humans and so is not cold. Therefore the next distinction was made between animals that maintain a constant body temperature, called homeotherms, and those whose body temperature varies with their environment, called poikilotherms. But this classification also proved inadequate. Because among mammals there are many that vary their body temperatures during hibernation. Furthermore, many invertebrates that live in the depths of the ocean never experience a change in the chill of the deep water, and their body temperatures remain constant.

The current distinction is between animals whose body temperature is regulated chiefly "by internal metabolic processes" and those whose temperature is regulated by, and who get most of their heat from, the environment. The former are called endotherms, and the latter are called ectotherms. Most ectotherms do regulate their body temperature, and they do so mainly by locomoting to favorable sites or by changing their exposure to external sources of heat. Endotherms (mainly mammals, and birds) also regulate their temperature by choosing favorable environments, but primarily they regulate their temperature by making a variety of internal adjustments.

- What does the passage mainly discuss?
  - Body temperatures of various animals
  - The newest research on measuring temperature
  - Methods of temperature reduction
  - The classification of animals by temperature regulation
- Which of the following terms refers primarily to mammals and birds?
 

(A) Warm-blooded	(B) Ectothermic	(C) Cold-blooded	(D) Poikilothermic
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- In general, the temperature of endotherms is regulated
 

(A) consciously	(B) internally	(C) inadequately	(D) environmentally
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- According to the passage, the chief way in which ectotherms regulate their temperature is by
 

(A) seeking out appropriate locations	(B) hibernating part of the year
(C) staying in deep water	(D) triggering certain metabolic processes
- The word "sites" in line 25 is closest in meaning to which of the following?
 

(A) Temperatures	(B) Conditions	(C) Opportunities	(D) Places
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- Where in the passage does the author explain why some mammals are not homeotherms?
 

(A) Lines 7-8	(B) Lines 11-14	(C) Lines 16-18	(D) Lines 26-28
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### Passage 4

A onetime illustrator, Winslow Homer painted in a careful, clear, accurately detailed, and convincing manner. Homer worked on "Breezing Up" at intervals over a period of three years. It was the result of intense study, and it grew out of two earlier studies of the scene, a watercolor and a small oil painting.

Sun-bronzed boys in their weather-beaten clothes were a common sight in New England in Homer's time, as were fishermen like the one in the red jacket, shown crouching as he holds the mainsheet. In the rising wind, the boys have positioned themselves to counter-balance the tilt of the boat as it speeds along in a choppy sea. The lad stretched full length by the mast seems oblivious to the spray of the bow waves; the boy beside him, silhouetted against the sky, holds onto the coaming. The light that highlights the figures of the sailors also illuminates the scales of the fish in the bottom of the boat. The picture gives us a sense of the pleasure and independence of sailing.

1. According to the passage, Winslow Homer's style of painting can best be described as  
(A) precise                      (B) complicated                      (C) abstract                      (D) amusing
2. According to the passage, the painting "Breezing Up" was the result of  
(A) a short burst of inspiration                      (B) periods of work over several years  
(C) three years of continuous work                      (D) a lifetime of studying the sea
3. For a person viewing the painting in Homer's time, the subjects of the painting would probably seem  
(A) silly                      (B) ambitious                      (C) bold                      (D) ordinary
4. The boys in the painting have assumed their positions to  
(A) hold onto the fishing nets                      (B) enjoy the spray of the waves  
(C) prevent the boat from overturning                      (D) keep the mast in the correct place
5. It can be inferred from the passage that the title of the painting refers to the  
(A) boat's appearance                      (B) rising wind  
(C) boat's angle                      (D) light's source
6. Where in the passage is Winslow Homer's previous occupation mentioned?  
(A) Line 1                      (B) Line 3                      (C) Line 6                      (D) Line 10

### Passage 5

Chemistry did not emerge as a science until after the scientific revolution in the seventeenth century and then only rather slowly and laboriously. But chemical knowledge is as old as history, being almost entirely concerned with the practical arts of living. Cooking is essentially a chemical process, so is the melting of metals and the administration of drugs and potions. This basic chemical knowledge, which was applied in most cases as a rule of thumb, was nevertheless dependent on previous experiment. It also served to stimulate a fundamental curiosity about the processes themselves. New information was always being gained as artisans improved techniques to gain better results.

The development of a scientific approach to chemistry was, however, hampered by several factors. The most serious problem was the vast range of material available and the consequent difficulty of organizing it into some system. In addition, there were social and intellectual difficulties, chemistry is nothing if not practical; those who practice it must use their

hands, they must have a certain practical flair. Yet in many ancient civilizations, practical tasks were primarily the province of a slave population. The thinker or philosopher stood apart from this mundane world, where the practical arts appeared to lack any intellectual content or interest.

The final problem for early chemical science was the element of secrecy. Experts in specific trades had developed their own techniques and guarded their knowledge to prevent others from stealing their livelihood. Another factor that contributed to secrecy was the esoteric nature of the knowledge of alchemists, who were trying to transform base metals into gold or were concerned with the hunt for the elixir that would bestow the blessing of eternal life. In one sense, the second of these was the more serious impediment because the records of the chemical processes that early alchemists had discovered were often written down in symbolic language intelligible to very few or in symbols that were purposely obscure.

1. What is the passage mainly about
  - (A) The scientific revolution in the seventeenth century
  - (B) Reasons that chemistry developed slowly as a science
  - (C) The practical aspects of chemistry
  - (D) Difficulties of organizing knowledge systematically
  
2. According to the passage, how did knowledge about chemical processes increase before the seventeenth century?
  - (A) Philosophers devised theories about chemical properties.
  - (B) A special symbolic language was developed.
  - (C) Experience led workers to revise their techniques.
  - (D) Experts shared their discoveries with the public.
  
3. The word "hampered" in line 9 is closest in meaning to
 

(A) recognized	(B) determined	(C) solved	(D) hindered
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4. The word "it" in line 11 refers to which of the following?
 

(A) problem	(B) material	(C) difficulty	(D) system
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5. The word "mundane" in line 15 is closest in meaning to which of the following
 

(A) Rational	(B) Scientific	(C) Comfortable	(D) Ordinary
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6. Which of the following statements best explains why "the second of these was the more serious impediment"(line 21)?
  - (A) Chemical knowledge was limited to a small number of people.
  - (B) The symbolic language used was very imprecise.
  - (C) Very few new discoveries were made by alchemists.
  - (D) The records of the chemical process were not based on experiments.

# PRACTICE TEST 45

## August 1994

### Passage 1

In many ways college students of the last two decades of the nineteenth century were inextricably involved in the processes of change. The North American institutions they attended were undergoing profound transformation. It was not just that more students were being admitted. These were different students—some were women. In Ontario, Canada, Queen's University was the first to admit women into degree programs, and the University of Toronto followed suit eight years later in 1884. Moreover, as colleges ceased to cater more narrowly to candidates for the religious ministry and the professions and came to be seen as a logical continuation of secondary school, younger students began to predominate. Many of those who now enrolled were experiencing transition not only from a small town or rural area to an urban environment, but also from adolescence to young adulthood. Universities had to adjust to the needs of students who were less mature and less settled in their interests.

As the student body changed, so did the curriculum. Scientific, professional, and graduate training became much more sophisticated, but the traditional arts program was altered as well. Rigid courses of study full of Greek and Latin prerequisites were being replaced at many schools by elective systems that featured new subjects, such as English literature, political science, economics, sociology and psychology. Old subjects, like biology and philosophy, were rocked by new ideas so that they too seemed very different.

1. What does the passage mainly discuss?  
(A) The founding and growth of Queen's University  
(B) A transition in university education  
(C) Major differences between rural and urban colleges  
(D) The beginning of public education in Ontario
2. When were women first allowed to enroll in degree programs at Queen's University?  
(A) In 1876                      (B) In 1884                      (C) In 1892                      (D) In 1900
3. Which of the following does the author suggest was a problem related to the admission of new types of students?  
(A) Their secondary school education                      (B) Their parents' profession  
(C) Their religion                      (D) Their age
4. Which of the following courses is most likely to have been offered as part of a traditional college degree program in the early 1800's?  
(A) Political science                      (B) Engineering  
(C) Nursing                      (D) Religion
5. It can be inferred from the passage that after the 1880's students gained more freedom to  
(A) return to their hometowns                      (B) choose their own courses  
(C) monitor their own progress                      (D) question their professors
6. The author uses the expression "rocked by" in lines 16 - 17 to suggest that the effect of new ideas on old subjects was  
(A) calming                      (B) musical                      (C) powerful                      (D) religious



## Passage 2

A painter hangs his or her finished picture on a wall, and everyone can see it. A composer writes a work, but no one can hear it until it is performed. Professional singers and players have great responsibilities; for the composer, is utterly dependent on them. A student of music needs as long and as arduous a training to become a performer as a medical student needs to become a doctor. Most training is concerned with technique, for musicians have to have the muscular proficiency of an athlete or a ballet dancer. Singers practice breathing every day, as their vocal chords would be inadequate without controlled muscular support. String players practice moving the fingers of the left hand up and down, while drawing the bow to and for with the right arm -two entirely different movements.

Singers and instrumentalists have to be able to get every note perfectly in tune. Pianists are spared this particular anxiety, for the notes are already there, waiting for them, and it is the piano tuner's responsibility to tune the instrument for them. But they have their own difficulties: the hammers that hit the strings have to be coaxed not to sound like percussion, and each overlapping tone has to sound clear.

This problem of getting clear texture is one that confronts student conductors: they have to learn to know every note of the music and how it should sound, and they have to aim at controlling these sounds with fanatical but selfless authority.

Technique is of no use unless it is combined with musical knowledge and understanding. Great artists are those who are so thoroughly at home in the language of music that they can enjoy performing works written in any century.

1. Which of the following best states the main idea of the passage?
  - (A) It is easier to study medicine than music.
  - (B) Painters and composers use totally different methods to reach the public.
  - (C) All musicians must know how to tune their own instruments.
  - (D) Musicians must acquire technique and understanding to perform well.
  
2. According to the passage, performers could best meet their obligation to composers by doing which of the following?
  - (A) Taking courses in art appreciation
  - (B) Knowing how the music was intended to be performed
  - (C) Studying works written at different periods in history
  - (D) Rearranging musical scores for their particular instrument
  
3. Why does the author mention athletes and ballet dancers?
  - (A) To contrast the requirements of each field of study
  - (B) To discourage music students from continuing their studies
  - (C) To motivate students to work harder to achieve their goals
  - (D) To show that music students must develop great physical coordination
  
4. According to the passage, the advantage that pianists have over other instrumentalists is that they do NOT have to
 

(A) tune their own instruments	(B) practice as often
(C) use their muscles	(D) aim for clarity of sound

### Passage 3

Nitinol is one of the most extraordinary metals to be discovered this century. A simple alloy of nickel and titanium, nitinol has some perplexing properties. A metal with a memory, it can be made to remember any shape into which it is fashioned, returning to that shape whenever it is heated.

For example, a piece of nitinol wire bent to form a circle that is then heated and quenched will remember this shape. It may then be bent or crumpled, but on reheating, will violently untwist, reforming its original shape. This remarkable ability is called Shape Memory Effect (SME) other alloys, such as brasses, are known to possess it to a limited extent. No one fully understands SME, and nitinol remains particularly perplexing, for, whenever it performs this peculiar feat, it appears to be breaking the laws of thermodynamics by springing back into shape with greater force than was used to deform it in the first place.

But not only is nitinol capable of remembering, it also has the ability to learn. If the heating - cooling - crumpling - reheating process is carried out sufficiently often, and the metal is always crumpled in exactly the same way, the nitinol will not only remember its original shape, but gradually it learns to remember its crumpled form as well, and will begin to return to the same crumpled shape every time it is cooled. Eventually, the metal will crumple and uncrumple, totally unaided, in response to changes in temperature and without any sign of metal fatigue.

Engineers have produced prototype engines that are driven by the force of nitinol springing from one shape to another as it alternately encounters hot and cold water. The energy from these remarkable engines is, however, not entirely free: heat energy is required to produce the temperature differences needed to run the engine. But the optimum temperatures at which the metal reacts can be controlled by altering the proportions of nickel to titanium; some alloys will even perform at room temperature. The necessary temperature range between the warm and the cold can be as little as twelve degrees centigrade.

1. The word "quenched" as used in line 5, is closest in meaning to  
(A) cooled                      (B) reheated                      (C) bent                      (D) reformed
2. ???
3. Why does the author mention brass in line 8?  
(A) It is one of the ingredients of nitinol                      (B) It is another metal with Shape Memory Effect  
(C) It may be replaced by nitinol                      (D) It was the first alloy discovered
4. ???
5. The word "free" in line 20 is closest in meaning to  
(A) at liberty                      (B) without cost                      (C) separate                      (D) clear
6. The machines mentioned in the last paragraph of the passage are of interest because they  
(A) use solar energy to heat nitinol  
(B) harness the force of nitinol shape changes  
(C) can function at temperatures below the melting point of nitinol  
(D) produce nitinol at very low cost

## Passage 4

With a literary history that goes back as far as the seventeenth century, Florida has long been a major haunt for writers from all over the United States. Jonathan Dickinson, whose group of Quakers was cast up on the coast near what is now Palm Beach after they were wrecked en route from Jamaica to Pennsylvania, recorded the tragedy in *God's Protecting Providence* in 1699. Not only was this book one of America's first best-sellers, but it was also the first account of the American Indians of the southeastern coast. Other early writers who followed Dickinson celebrated the rich and various plant and animal life of the region, striking sympathetic chords in the imaginations of Ralph Waldo Emerson and the English poets William Wordsworth and Samuel Taylor Coleridge.

Florida has been visited by many writers who sometimes were so taken by what they saw that they adopted it as their home. Harriet Beecher Stowe, the author of *Uncle Tom's Cabin*, spent several winters on an orange farm that she and her husband bought in 1867. The Stowes' original intent in buying a home, which is at Mandarin on the Saint Johns River, was to create a model for the employment of former slaves. The original intent had to give way to other considerations. So many spectators flocked to the farm to catch a glimpse of Mrs. Stowe that a charge of 25 cents per person for admission was established.

On his way to report on the Cuban Revolution in 1896, Stephen Crane spent some time in Jacksonville. It was there that Crane met his wife, who at that time ran a popular tavern in the town. On his way to Cuba, Crane's boat sank off the coast of Florida, an incident that provided Crane with the material on which his masterpiece "The Open Boat" is based.

James Weldon Johnson, a prominent Black author, was a native of Florida. He was born in Jacksonville in 1871 and was a songwriter, poet, novelist, teacher, and the first Black man to become a lawyer in Florida since the Reconstruction. Johnson also fought successfully to upgrade the quality of education for Black people in Florida.

- What is the main topic of the passage  
 (A) Early books about Florida  
 (B) Florida's literary history  
 (C) The first settlers of Palm Beach  
 (D) Black American literature
- The word "it" in line 5 refers to  
 (A) tragedy  
 (B) book  
 (C) life  
 (D) coast
- The popular book *God's Protecting Providence* primarily dealt with  
 (A) Ralph Waldo Emerson  
 (B) the beach  
 (C) animal life  
 (D) a shipwreck
- The word "rich" in line 7 is closest in meaning to  
 (A) expensive  
 (B) healthy  
 (C) abundant  
 (D) heavy
- It can be inferred from the passage that Harriet Beecher Stowe was  
 (A) a celebrity  
 (B) a travel writer  
 (C) an associate of Stephen Crane  
 (D) a native of Florida
- When Stephen Crane met his wife, he was a  
 (A) soldier  
 (B) sailor  
 (C) journalist  
 (D) tavernkeeper
- What can be inferred about the story "The Open Boat"?  
 (A) It is mainly about a shipwreck  
 (B) It is mainly about Cuba

(C) It takes place in a tavern

(D) Its main character is from Florida

8. The passage refers to all of the following as occupations of James Weldon Johnson EXCEPT

(A) playwright

(B) poet

(C) educator

(D) lawyer

### Passage 5

The concept of obtaining fresh water from icebergs that are towed to populated areas and arid regions of the world was once treated as a joke more appropriate to cartoons than real life. But now it is being considered quite seriously by many nations especially since scientists have warned that the human race will outgrow its fresh water supply faster than it runs out of food.

Glaciers are a possible source of fresh water that have been overlooked until recently. Three - quarters of the Earth's fresh water supply is still tied up in glacial ice, a reservoir of untapped fresh water so immense that it could sustain all the rivers of the world for 1,000 years. Floating on the oceans every year are 7, 659 trillion metric tons of ice encased in 10,000 icebergs that break away from the polar ice caps more than ninety percent of them from Antarctica.

Huge glaciers that stretch over the shallow continental shelf give birth to icebergs throughout the year. Icebergs are not like sea ice, which is formed when the sea itself freezes rather they are formed entirely on land, breaking off when glaciers spread over the sea. As they drift away from the polar region, icebergs sometimes move mysteriously in a direction opposite to the wind, pulled by subsurface currents. Because they melt more slowly than smaller pieces of ice, icebergs have been known to drift as far north as 35 degrees south of the equator in the Atlantic Ocean. To corral them and steer them to parts of the world where they are needed would not be too difficult.

The difficulty arises in other technical matters, such as the prevention of rapid melting in warmer climates and the funneling of fresh water to shore in great volume. But even if the icebergs lost half of their volume in towing, the water they could provide would be far cheaper than that produced by desalination, or removing salt from water.

1. What is the main topic of the passage?

(A) The movement of glaciers

(B) Icebergs as a source of fresh water

(C) Future water shortages

(D) The future of the world's rivers

2. The word "it" in line 3 refers to

(A) an iceberg that is towed

(B) obtaining fresh water from icebergs

(C) the population of arid areas

(D) real life

3. According to the author, most of the world's fresh water is to be found in

(A) oceans

(B) rivers

(C) glaciers

(D) reservoirs

4. How are icebergs formed?

(A) They break off from glaciers

(B) Seawater freezes

(C) Rivers freeze

(D) Small pieces of floating ice converge

5. With which of the following ideas would the author be likely to agree?

(A) Towing icebergs to dry areas is economically possible

(B) Desalination of water is the best way to obtain drinking water

(C) Using water from icebergs is a very short -term solution to water shortages

(D) Icebergs could not be towed very far before they would melt

6. It can be inferred from the passage that most icebergs

(A) become part of glaciers

- (B) drift toward the polar region
- (C) move in whichever direction the wind is blowing
- (D) melt in the oceans

# PRACTICE TEST 46

## October 1994

### Passage 1

Since there is such an abundance of food in the sea, it is understandable that some the efficient, highly adaptable, warm - blooded mammals that evolved on land should have returned to the sea. Those that did have flourished Within about 50 million years - no time at all, geologically speaking - one of the four kinds of mammals that has returned to a marine environment has developed into the largest of all animal forms, the whale. A second kind, the seal, has produced what is probably the greatest population of large carnivorous mammals on Earth. This suggests that these "top dogs" of the ocean are prospering and multiplying. However, such has not been the case, at least not for the last 150 years. Trouble has closed in or these mammals in the form of equally warm-blooded and even more efficient and adaptable predators, humans. At sea, as on land, humans have now positioned themselves on to -of the whole great pyramid of life, and they have caused serious problems for the mammals of the sea.

There is a simple reason for this. Marine mammals have the misfortune to be swimming aggregates of commodities that humans want: fur, oil, and meat. Even so, they might not be so vulnerable to human depredation if they did not, like humans, reproduce so slowly. Every year humans take more than 50 million tons of fish from the oceans without critically depleting the population of any species. But the slow-breeding mammals of the sea have been all but wiped out by humans seeking to satisfy their wants and whims.

1. Which of the following statements about marine mammals best expresses the main idea of the passage  
(A) They have their origins on land.  
(B) They have evolved successfully but are now threatened by humans.  
(C) They compete with one another for the ocean's food supply.  
(D) They have many of the biological traits of humans.
2. What advantage did some land mammals gain by returning to the sea?  
(A) Fewer predators exist in the sea.                      (B) More space is available in the sea.  
(C) There is a greater supply of food in the sea.        (D) The climate is more hospitable in the sea.
3. It can be inferred from the passage that during the last 150 years humans have  
(A) constructed submarines  
(B) learned how to swim  
(C) threatened the existence of some marine mammals  
(D) begun to harvest certain plants from the ocean as food
4. In line 14 the word "they" refers to  
(A) marine mammals        (B) commodities            (C) humans                    (D) fur, oil, and meat
5. Which of the following statements is supported by the passage?  
(A) The whale's ancestors were driven into the sea by humans.  
(B) The food supply of seals is being depleted by humans  
(C) The whale evolved from a species of land - dwelling mammal.  
(D) Whales are a more efficient and adapt-able species than humans.
6. It can be inferred from the passage that marine mammals are like humans in which of the following ways".  
(A) They survive despite changes in their metabolic rates.  
(B) They reproduce slowly.  
(C) They are prospering and multiplying.

(D) They are depleting the vegetation of the seas.

## Passage 2

Of all the folk artists in the United States the most well known of the twentieth century is certainly Grandma Moses—Anna Mary Robertson Moses (1860 - 1961). She was also the most successful within her lifetime and her work was reproduced on greeting cards and calendars and in prints. As with many folk artists, her career as a painter started late in life, at the age of 67, but she continued painting until her death at the age of 101, so her active painting life still spanned over 34 years.

Her subjects are based on the New England countryside and evoke a strong mood of nostalgia. Many of her early paintings are copies of, or use sections from, prints by Currier and Ives that she then recomposed in her own way. In her versions the figures became more stylized and the landscapes less naturalistic. Her painting was preceded by the production of landscapes in needlework, and it was only the onset of arthritis that forced the change of medium. The images, however, continued the same, and she reexecuted some of her needlework landscapes in paint at a later date.

From these early sources she then began to compose original paintings such as *Housick Falls. New York in Winter* (1944) that relied on her surroundings and her memories of country life and activities: these paintings display an ~ technical ability. By the 1940's her work had become a marketable commodity and collectors created a demand for her paintings.

Like many painters of the nineteenth and twentieth centuries, Grandma Moses made use of photographs for information, for figures, for fragments of landscape, and for buildings, but her work, especially that of her later years, was not a slavish copying of these but compositions using them as source material. Her output was prodigious, and consequently her work is of varying quality. Although much of her public appeal is based on the emotive image of the "Grandma" figure producing naive pictures of country life, her paintings place her among the top folk painters of the nineteenth and twentieth centuries.

- What is the main topic of the passage?
  - The painting materials used by Grandma Moses
  - The major artistic influences on Grandma Moses
  - The folk art of Grandma Moses
  - The life of Grandma Moses
- According to the passage, Grandma Moses started her painting career
  - without much success
  - in her sixties
  - after much study
  - by producing greeting cards
- Why does the author mention Currier and Ives in lines 8-9?
  - They are folk artists
  - They collected many of Grandma Moses' paintings
  - They made calendars from Grandma Moses' landscapes
  - Grandma Moses based some paintings on their work
- According to the passage, Grandma Moses switched from needlework to painting because of
  - her desire to create landscapes
  - the public's interest in painting
  - her need to make money
  - a physic condition that affected her
- The word "naive" in line 23 is closest in meaning to which of the following?
  - Unsophisticated
  - Ignorant
  - Unspoiled
  - Trusting
- According to the passage, Grandma Moses based her painting on all of the following EXCEPT
  - photographs
  - her needlework
  - her family
  - prints

7. Where in the passage does the author mention when Grandma Moses became popularly accepted?  
(A) Lines 4 – 6                      (B) Lines 10 – 12                      (C) Lines 16 – 17                      (D) Lines 21 – 24

**Passage 3**

In general, as soon as the newborn child's muscles, sense organs, and nerves are fully formed, the child begins to use them. But much of the human nervous system is not fully developed until the child is a year or two old, and some parts, such as the corpus callosum, continue to mature for at least the next 20 years.

The general pattern of bodily development is from head to foot. Simple skills, such as head movements, appear first because the structures that control these skills are among the first to mature. More complex behavior patterns, such as crawling, standing, and walking, come much later in the developmental sequence than head movements do.

The motor centers in the brain are connected by long nerve fibers(usually through one or more synapses) to the muscles in various parts of the body. Since the head muscles are closer to the brain than are the foot muscles, according to one theory, the head comes under the control of the motor centers long before the feet do. The appearance of a new motor skill (such as crawling and grasping) always suggests that a new part of the child's body has just matured—that is, that the brain centers have just begun to control the muscles involved in the new motor skill.

1. What is the author's main purpose in this passage?  
(A) To describe how children crawl, stand, and walk  
(B) To explain why some children are slow to develop  
(C) To describe early physical development in children  
(D) To explain the function of the corpus callosum
2. According to the passage, the corpus callosum is part of the human  
(A) muscular system                      (B) digestive system  
(C) circulatory system                      (D) nervous system
3. According to the passage, which of the following motor skills does an infant first develop?  
(A) Moving the head                      (B) Crawling  
(C) Controlling the arms                      (D) Kicking
4. According to the passage, we can tell that the child's brain centers have begun to control new muscles when  
(A) the child's brain matures                      (B) the child moves its body in new ways  
(C) long nerve fibers disappear                      (D) the child performs an acquired skill more rapidly



## Passage 4

By long-standing convention, all meteorites are assigned to three broad divisions on the basis of two kinds of material that they contain: metallic nickel - iron(metal) and silicates, which are compounds of other chemical elements with silicon and oxygen. As their name suggests, the iron meteorites consist almost entirely of metal. At the opposite extreme, the stony meteorites consist chiefly of silicates and contain little or no metal. A third category, stony-irons, includes those meteorites that contain similar amounts of metal and silicates. Since meteoritic metal weighs more than twice as much as the same volume of meteoritic silicates, these three kinds of meteorites can usually be distinguished by density, without more elaborate tests.

The stony meteorites can also be subdivided into two categories by using nothing more complicated than a magnifying glass. The great majority of such meteorites are chondrites, which take their name from tiny, rounded objects - chondrules - that occur in most of them and are among their most puzzling features. The rest of the stony meteorites lack chondritic texture and are therefore called achondrites. Achondrites vary widely in texture, composition, and history.

Irons, stony-irons, chondrites, and achondrites are by no means equally abundant among observed meteorites: chondrites are much more common than all other kinds of meteorites put together. The irons, which are usually prominent in museum displays, are really quite uncommon. Curators like to highlight iron meteorites because many of them are large and their internal structure is spectacular in polished, etched slices. A stony meteorite has a beauty of its own, but it only appears under the microscope: to the unaided eye, stony meteorites appear to be - indeed they are - rather homely black or gray rocks.

To go further with meteorite classification, it is necessary to be more specific about the minerals that make up a meteorite: which silicates are present, and what kind of metal? To answer these questions, one needs to see more detail than is visible to the unaided human eye.

- What is the passage mainly about?
 

(A) The formation of meteorites	(B) Some recent meteorites
(C) The classification of meteorites	(D) How meteorites are displayed
- The word "elaborate" in line 9 is closest in meaning to which of the following.
 

(A) Natural	(B) Detailed	(C) Basic	(D) Proven
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- According to the passage, small, rounded objects can be found in what kind of meteorites?
 

(A) Irons	(B) Chondrites	(C) Stony-irons	(D) Achondrites
-----------	----------------	-----------------	-----------------
- According to the passage, the spectacular meteorites usually found in museums are
 

(A) gray or black	(B) generally small
(C) unimportant to science	(D) fairly uncommon
- The word "it" in line 21 refers to
 

(A) beauty	(B) meteorite	(C) microscope	(D) eye
------------	---------------	----------------	---------
- ???
- Where in the passage does the author suggest a means by which meteorites can be differentiated?
 

(A) Lines 3-4	(B) Lines 7-9	(C) Lines 18 – 19	(D) Lines 20-22
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## Passage 5

National parties in the United States have generally been weak in structure and wary of ideology. Many writers have said that American parties are the least centralized in the world. However, the argument that parties have not represented significant differences in policy can be pushed too far. For example, in this century, at least, the Republicans have been more committed than the Democrats to a market - oriented economy, while the Democrats have been more prepared to use government to address economic problems. Within both parties there has been wide variance on issues but in general the Republicans have been the more conservative and the Democrats the more liberal.

Both parties, however, have resisted reducing these tendencies in their social, economic, and moral belief systems to a rigid ideology. And neither, until recently, vested much authority in its national party structure.

At state and local levels, on the other hand, party organizations often achieved impressive levels of solidarity and internal discipline. Both Democrats and Republicans maintained potent local political organizations in many cities and states.

Whatever their merits or demerits, the traditional organizations went into steep decline during the 1950's and 1960's. The Old organizations lost the ability to maintain internal discipline. The share of voters regarding themselves as political independents, that is, people not affiliated with either of the major parties, rose.

There were several reasons for the loss of effectiveness of the major party organizations. Development of a welfare state administered by the federal government established some of the services that had formerly been dispensed by the organizations as political favors. As recent immigrants became more educated they were less dependent on party workers. The inclusion of more state employees under civil service protection dried up some of the old wells of patronage. Growing unionization of public employees after 1960 struck an even more serious blow at the patronage system. Television brought candidates into voters' living rooms, thereby antiquating some of the communication and education functions of party workers. Most of all, perhaps, the old tribal differences associated with the parties began to seem irrelevant to members of generations that sought fresh identities.

1. What does the passage mainly discuss?
  - (A) American political parties in the twentieth century
  - (B) The role of ideology in American politics
  - (C) The future direction of United States politics
  - (D) Differences between Republicans and Democrats
2. According to the passage, what is true of the major political parties in the United States?
  - (A) They are both generally conservative
  - (B) Party organizations have been stronger at the state level than at the national level
  - (C) Party organizations have increased their influence in recent years
  - (D) Democrats have been stronger than Republicans at the national level
3. The word "steep" in line 15 is closest in meaning to which of the following?
  - (A) characteristic
  - (B) unexpected

- (C) sharp
- (D) predictable

4. The passage mentions all of the following as causes of the decline of political organization in the United States EXCEPT
- (A) increased numbers of immigrants
  - (B) development of the welfare state
  - (C) improved conditions for state workers
  - (D) the influence of television
5. The passage supports which of the following conclusions?
- (A) Democrats are more committed than Republicans to a market - oriented economy
  - (B) Republicans are more liberal than Democrats
  - (C) Republicans and Democrats tend to be flexible on ideological questions
  - (D) Only Democrats have traditional political organizations
6. The word "irrelevant" in line 28 is closest in meaning to
- |                   |                   |
|-------------------|-------------------|
| (A) unquestioning | (B) uninteresting |
| (C) irreversible  | (D) unimportant   |

# ANSWER KEY

**PRACTICE TEST 30**

CDCBC DACBC DDDCC ABBAC DBCAD ABACD BABBC CAABB BBABC AACCD

**PRACTICE TEST 31**

BDADC DACBC CBACD ACDBA DBCAD DBACB CCDDDB BDACA BACDA BACCD

**PRACTICE TEST 32**

ABBD CCBDB BACCD BCDAB BABDD CBACA CBDAA DABCD BCAAB DCADD

**PRACTICE TEST 33**

DBCCD CABAB DCCAC ABBCA BCADC DADCC BDBAA AADDB BBADB CBDDA

**PRACTICE TEST 34**

CBADD CAAAD CBCBC ACABD BADAB ACBCD BDACD CADBA CBDCEB CCADA

**PRACTICE TEST 35**

ACBAB CCDDDB DBBBC ACDAB CCABD DCABC ADBBA BABCA CBACD AACDC

**PRACTICE TEST 36**

CCACC BCDCC AACDC BDABB DACAD DBBCA AADDC CDBAB AACBB AABDC

**PRACTICE TEST 37**

BDCAD ADCBA DBBDD BBACC DADBC DACBD BCCCD BAABA CCBAC DDDAD

**PRACTICE TEST 38**

CADCAB BDCAC CBACD BCCDAD CACBBCBC

**PRACTICE TEST 39**

ADBACB ABBCAC DAABAD BDDDBD BBADDCC

**PRACTICE TEST 40**

DBBDC BACDC BACDA DABAB DADAC DCABD ADCDB BDDAB BDBAD DABCD

**PRACTICE TEST 41**

CCBBA DCADA BDCDD AABDB CCDAD BDBAA DCCCD BAABB DABCC DBCAB

**PRACTICE TEST 42**

BABAD BADAB BCBCD BBADC DCBCD BDADD CCBDD AAADB CDADB BBBCD

**PRACTICE TEST 43**

DCDAB BDABCAB DADBCAB BDDACBA CBBC

**PRACTICE TEST 44**

DABDB CBBAADA DABADC ABDCBA BCDBDA

**PRACTICE TEST 45**

BADDBC DBDA AABDBB BBDCACAA BBCAAD

**PRACTICE TEST 46**

BCCACB CBDDACC CDAB CBBDADB ABCACD

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# PRACTICE TEST 47

## January 1993

### Passage 1

Bacteria are extremely small living things. While we measure our own sizes in inches or centimeters, bacterial size is measured in microns. One micron is a thousandth of a millimeter a pinhead is about a millimeter across. Rod shaped bacteria are usually from two to four microns long, while rounded ones are generally one micron in diameter. Thus if you enlarged a rounded bacterium a thousand times, it would be just about the size of a pinhead. An adult human magnified by the same amount would be over a mile (1.6 kilometers) tall.

Even with an ordinary microscope, you must look closely to see bacteria. Using a magnification of 100 times, one finds that bacteria are barely visible as tiny rods or dots. One cannot make out anything of their structure. Using special stains, one can see that some bacteria have attached to them wavy - looking "hairs" called flagella. Others have only one flagellum. The flagella rotate, pushing the bacteria through the water. Many bacteria lack flagella and cannot move about by their own power while others can glide along over surfaces by some little understood mechanism.

From the bacterial point of view, the world is a very different place from what it is to humans. To a bacterium water is as thick as molasses is to us. Bacteria are so small that they are influenced by the movements of the chemical molecules around them. Bacteria under the microscope, even those with no flagella, often bounce about in the water. This is because they collide with the water molecules and are pushed this way and that. Molecules move so rapidly that within a tenth of a second the molecules around a bacterium have all been replaced by new ones even bacteria without flagella are thus constantly exposed to a changing environment.

- Which of the following is the main topic of the passage?  
(A) The characteristics of bacteria  
(B) How bacteria reproduce  
(C) The various functions of bacteria  
(D) How bacteria contribute to disease
- Bacteria are measured in  
(A) inches  
(B) centimeters  
(C) microns  
(D) millimeters
- Which of the following is the smallest?  
(A) A pinhead  
(B) A rounded bacterium  
(C) A microscope  
(D) A rod-shaped bacterium
- According to the passage, someone who examines bacteria using only a microscope that magnifies 100 times would see  
(A) tiny dots  
(B) small "hairs"  
(C) large rods  
(D) detailed structures
- The relationship between a bacterium and its flagella is most nearly analogous to which of the following?  
(A) A rider jumping on a horse's back  
(B) A ball being hit by a bat  
(C) A boat powered by a motor  
(D) A door closed by a gust of wind
- In line 16, the author compares water to molasses, in order to introduce which of the following topics?  
(A) The bacterial content of different liquids  
(B) What happens when bacteria are added to molasses  
(C) The molecular structures of different chemicals  
(D) How difficult it is for bacteria to move through water



Passage 2

One of the most popular literary figures in American literature is a woman who spent almost half of her long life in China, a country on a continent thousands of miles from the United States. In her lifetime she earned this country's most highly acclaimed literary award: the Pulitzer Prize, and also the most prestigious form of literary recognition in the world, the Nobel Prize for Literature. Pearl S. Buck was almost a household word throughout much of her lifetime because of her prolific literary output, which consisted of some eighty - five published works, including several dozen novels, six collections of short stories, fourteen books for children, and more than a dozen works of nonfiction. When she was eighty years old, some twenty - five volumes were awaiting publication. Many of those books were set in China, the land in which she spent so much of her life. Her books and her life served as a bridge between the cultures of the East and the West. As the product of those two cultures she became as she described herself, "mentally bifocal." Her unique background made her into an unusually interesting and versatile human being. As we examine the life of Pearl Buck, we cannot help but be aware that we are in fact meeting three separate people: a wife and mother, an internationally famous writer and a humanitarian and philanthropist. One cannot really get to know Pearl Buck without learning about each of the three. Though honored in her lifetime with the William Dean Howell Medal of the American Academy of Arts and Letters in addition to the Nobel and Pulitzer prizes. Pearl Buck as a total human being, not only a famous author. is a captivating subject of study.

1. What is the author's main purpose in the passage?  
(A) To offer a criticism of the works of Pearl Buck.  
(B) To illustrate Pearl Buck's views on Chinese literature  
(C) To indicate the background and diverse interests of Pearl Buck  
(D) To discuss Pearl Buck's influence on the cultures of the East and the West
2. According to the passage, Pearl Buck is known as a writer of all of the following EXCEPT  
(A) novels                      (B) children's books                      (C) poetry                      (D) short stories
3. Which of the following is NOT mentioned by the author as an award received by Pearl Buck?  
(A) The Nobel Prize                      (B) The Newberry Medal  
(C) The William Dean Howell medal                      (D) The Pulitzer prize
4. According to the passage, Pearl Buck was an unusual figure in American literature in that she  
(A) wrote extensively about a very different culture  
(B) published half of her books abroad  
(C) won more awards than any other woman of her time  
(D) achieved her first success very late in life
5. According to the passage, Pearl Buck described herself as "mentally bifocal" to suggest that she was  
(A) capable of resolving the differences between two distinct linguistic systems  
(B) keenly aware of how the past could influence the future  
(C) capable of producing literary works of interest to both adults and children  
(D) equally familiar with two different cultural environments
6. The author's attitude toward Pearl Buck could best be described as  
(A) indifferent                      (B) admiring                      (C) sympathetic                      (D) tolerant

### Passage 3

When we accept the evidence of our unaided eyes and describe the Sun as a yellow star, we have summed up the most important single fact about it-at this moment in time.

It appears probable, however, that sunlight will be the color we know for only a negligibly small part of the Sun's history. Stars, like individuals, age and change. As we look out into space, we see around us stars at all stages of evolution. There are faint blood-red dwarfs so cool that their surface temperature is a mere 4,000 degrees Fahrenheit, there are searing ghosts blazing at 100,000 degrees Fahrenheit and almost too hot to be seen, for the great part of their radiation is in the invisible ultraviolet range. Obviously, the "daylight" produced by any star depends on its temperature; today (and for ages to come) our Sun is at about 10,000 degrees Fahrenheit, and this means that most of the Sun's light is concentrated in the yellow band of the spectrum, falling slowly in intensity toward both the longer and shorter light waves. That yellow "hump" will shift as the Sun evolves, and the light of day will change accordingly. It is natural to assume that as the Sun grows older, and uses up its hydrogen fuel-which it is now doing at the spanking rate of half a billion tons a second- it will become steadily colder and redder.

- What is the passage mainly about?
 

(A) Faint dwarf stars	(B) The evolutionary cycle of the Sun
(C) The Sun's fuel problem	(D) The dangers of invisible radiation
- What does the author say is especially important about the Sun at the present time?
 

(A) It appears yellow	(B) It always remains the same
(C) It has a short history	(D) It is too cold
- Why are very hot stars referred to as "ghosts"?
 

(A) They are short-lived.	(B) They are mysterious.
(C) They are frightening.	(D) They are nearly invisible.
- According to the passage as the Sun continues to age, it is likely to become what color?
 

(A) Yellow	(B) Violet	(C) Red	(D) White
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- In line 15, to which of the following does "it" refer?
 

(A) yellow "hump"	(B) day	(C) Sun	(D) hydrogen fuel
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### Passage 4

If by "suburb" is meant an urban margin that grows more rapidly than its already developed interior, the process of suburbanization began during the emergence of the industrial city in the second quarter of the nineteenth century. Before that period the city was a small highly compact cluster in which people moved about on foot and goods were conveyed by horse and cart. But the early factories built in the 1830's and 1840's were located along waterways and near railheads at the edges of cities, and housing was needed for the thousands of people drawn by the prospect of employment. In time, the factories were surrounded by proliferating mill towns of apartments and row houses that abutted the older, main cities. As a defense against this encroachment and to enlarge their tax bases, the cities appropriated their industrial neighbors. In 1854, for example, the city of Philadelphia annexed most of Philadelphia County. Similar municipal maneuvers took place in Chicago and in New York. Indeed, most great cities of the United States achieved such status only by incorporating the communities along their borders.

With the acceleration of industrial growth came acute urban crowding and accompanying social stress conditions that began to approach disastrous proportions when, in 1888, the first commercially successful electric traction line was developed. Within a few years the horse - drawn trolleys were retired and electric streetcar networks crisscrossed and connected every major urban area, fostering a wave of suburbanization that transformed the compact industrial city into a dispersed metropolis. This first phase of mass - scale suburbanization was reinforced by the simultaneous emergence of the urban Middle class whose desires for homeownership in neighborhoods far from the aging inner city were satisfied by the developers of single-family housing tracts.

1. Which of the following is the best title for the passage?  
(A) The growth of Philadelphia (B) The Origin of the Suburb  
(C) The Development of City Transportation (D) The Rise of the Urban Middle Class
2. The author mentions that areas bordering the cities have grown during periods of  
(A) industrialization (B) inflation  
(C) revitalization (D) unionization
3. In line 10 the word "encroachment" refers to which of the following?  
(A) The smell of the factories (B) The growth of mill towns  
(C) The development of waterways (D) The loss of jobs
4. Which of the following was NOT mentioned in the passage as a factor in nineteenth-century suburbanization?  
(A) Cheaper housing (B) Urban crowding  
(C) The advent of an urban middle class (D) The invention of the electric streetcar
5. It can be inferred from the passage that after 1890 most people traveled around cities by  
(A) automobile (B) cart  
(C) horse-draw trolley (D) electric streetcar
6. Where in the passage does the author describe the cities as they were prior to suburbanization.  
(A) Lines 3-5 (B) Lines 5-9  
(C) Lines 12- 13 (D) Lines 15-18

## **Passage 5**

The first English attempts to colonize North America were controlled by individuals rather than companies. Sir Humphrey Gilbert was the first Englishman to send colonists to the New World. His initial expedition, which sailed in 1578 with a patent granted by Queen Elizabeth was defeated by the Spanish. A second attempt ended in disaster in 1583, when Gilbert and his ship were lost in a storm. In the following year, Gilbert's half brother, Sir Water Raleigh, having obtained a renewal of the patent, sponsored an expedition that explored the coast of the region that he named "Virginia." Under Raleigh's direction efforts were then made to establish a colony on Roanoke island in 1585 and 1587. The survivors of the first settlement on Roanoke returned to England in 1586, but the second group of colonists disappeared without leaving a trace. The failure of the Gilbert and Raleigh ventures made it clear that the tasks they had undertaken were too big for any one colonizer. Within a short time the trading company had supplanted the individual promoter of colonization.

1. Which of the following would be the most appropriate title for the passage?
  - (A) The Regulation of Trading Companies
  - (B) British - Spanish Rivalry in the New World
  - (C) Early Attempts at Colonizing North America
  - (D) Royal Patents Issued in the 16th Century
  
2. The passage states which of the following about the first English people to be involved in establishing colonies in North America?
  - (A) They were requested to do so by Queen Elizabeth.
  - (B) They were members of large trading companies.
  - (C) They were immediately successful.
  - (D) They were acting on their own.
  
3. According to the passage, which of the following statements about Sir Humphrey Gilbert is true?
  - (A) He never settled in North America.
  - (B) His trading company was given a patent by the queen.
  - (C) He fought the Spanish twice.
  - (D) He died in 1587.
  
4. When did Sir Walter Raleigh's initial expedition set out for North America?
  - (A) 1577
  - (B) 1579
  - (C) 1582
  - (D) 1584
  
5. Which of the following can be inferred from the passage about members of the first Roanoke settlement?
  - (A) They explored the entire coastal region.
  - (B) Some did not survive.
  - (C) They named the area "Virginia".
  - (D) Most were not experienced sailors.
  
6. According to the passage, the first English settlement on Roanoke Island was established in  
  - (A) 1578
  - (B) 1583
  - (C) 1585
  - (D) 1587
  
7. According to the passage, which of the following statements about the second settlement on Roanoke Island is true?
  - (A) Its settlers all gave up and returned to England.
  - (B) It lasted for several years.
  - (C) The fate of its inhabitants is unknown.
  - (D) It was conquered by the Spanish.

# PRACTICE TEST 48

May 1993

## Passage 1

With its radiant color and plantlike shape, the sea anemone looks more like a flower than an animal. More specifically, the sea anemone is formed quite like the flower for which it is named, with a body like a stem and tentacles like petals in brilliant shades of blue, green, pink, and red. Its diameter varies from about six millimeters in some species to more than ninety centimeters in the giant varieties of Australia. Like corals, hydras, and jellyfish, sea anemones are coelenterates. They can move slowly, but more often they attach the lower part of their cylindrical bodies to rocks, shells, or wharf pilings. The upper end of the sea anemone has a mouth surrounded by tentacles that the animal uses to capture its food. Stinging cells in the tentacles throw out tiny poison threads that paralyze other small sea animals. The tentacles then drag this prey into the sea anemone's mouth. The food is digested in the large inner body cavity. When disturbed a sea anemone retracts its tentacles and shortens its body so that it resembles a lump on a rock. Anemones may reproduce by forming eggs, dividing in half or developing buds that grow and break off as independent animals.

1. The word "shape" in line 1 is closest in meaning to which of the following?  
(A) Length                      (B) Grace                      (C) Form                      (D) Nature
2. According to the passage, which of the following statements is NOT true of sea anemones?  
(A) They are usually tiny.                      (B) They have flexible bodies.  
(C) They are related to jellyfish.                      (D) They are usually brightly colored.
3. It can be inferred from the passage that sea anemones are usually found  
(A) attached to stationary surfaces                      (B) hidden inside cylindrical objects  
(C) floating among underwater flowers                      (D) chasing prey around wharf pilings
4. The word "capture" in line 8 is closest in meaning to which of the following ?  
(A) Catch                      (B) Control                      (C) Cover                      (D) Clean
5. The word "disturbed" in line 11 is closest in meaning to which of the following?  
(A) Bothered                      (B) Hungry                      (C) Tired                      (D) Sick
6. The sea anemone reproduces by  
(A) budding only                      (B) forming eggs only  
(C) budding or dividing only                      (D) budding, forming eggs, or dividing
7. Where does the author mention the sea anemone's food - gathering technique  
(A) Lines 1-2                      (B) Lines 4-6  
(C) Lines 7-10                      (D) Lines 11-13

## Passage 2

Steamships were first introduced into the United States in 1807, and John Molson built the first steamship in Canada (then called British North America) in 1809. By the 1830's dozens of steam vessels were in use in Canada. They offered the traveler reliable transportation in comfortable facilities—a welcome alternative to stagecoach travel, which at the best of times

could only be described as wretched. This commitment to dependable river transport became entrenched with the investment of millions of dollars for the improvement of waterways, which included the construction of canals and lock systems. The Lachine and Welland canals, two of the most important systems, were opened in 1825 and 1829, respectively. By the time that Upper and Lower Canada were united into the Province of Canada in 1841, the public debt for canals was more than one hundred dollars per capita, an enormous sum for the time. But it may not seem such a great amount if we consider that improvements allowed steamboats to remain practical for most commercial transport in Canada until the mid-- nineteenth century.

1. What is the main purpose of the passage?
  - (A) To contrast travel by steamship and stagecoach
  - (B) To criticize the level of public debt in nineteenth - century Canada -
  - (C) To describe the introduction of steamships in Canada
  - (D) To show how Canada surpassed the United States in transportation improvements
2. The word "reliable" in line 3 is closest in meaning to which of the following
 

(A) Quick	(B) Safe	(C) Dependable	(D) Luxurious
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3. Which of the following can be inferred from the passage about stagecoach travel in Canada in the 1831's?
 

(A) It was reasonably comfortable.	(B) It was extremely efficient.
(C) It was not popular.	(D) It was very practical.
4. According to the passage, when was the Welland Canal opened?
 

(A) 1807	(B) 1809	(C) 1825	(D) 1829
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5. The word "sum" in line 10 is closest in meaning to which of the following?
 

(A) Size	(B) Cost	(C) Payment	(D) Amount
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6. According to the passage, steamships became practical means of transportation in Canada because of
 

(A) improvements in the waterways	(B) large subsidies from John Molson
(C) a relatively small population	(D) the lack of alternate means

## Passage 3

Archaeology is a source of history, not just a humble auxiliary discipline. Archaeological data are historical documents in their own right, not mere illustrations to written texts. Just as much as any other historian, an archaeologist studies and tries to reconstitute the process that has created the human world in which we live—and us ourselves in so far as we are each creatures of our age and social environment. Archaeological data are all changes in the material world resulting from human action or, more succinctly, the fossilized results of human behavior. The sum total of these constitute what may be called the archaeological record. This record exhibits certain peculiarities and deficiencies the consequences of which produce a rather superficial contrast between archaeological history and the more familiar kind based upon written records.

Not all human behavior fossilizes. The words I utter and you hear as vibrations in the air are certainly human changes in the material world and may be of great historical significance.

Yet they leave no sort of trace in the archaeological records unless they are captured by a dictaphone or written down by a clerk. The movement of troops on the battlefield may "change the course of history", but this is equally ephemeral from the archaeologist's standpoint. What is perhaps worse, most organic materials are perishable. Everything made of wood, hide, wool, linen, grass, hair, and similar materials will decay and vanish in dust in a few years or centuries, save under very exceptional conditions. In a relatively brief period the archaeological record is reduced to mere scraps of stone, bone, glass, metal, and earthenware. Still modern archaeology, by applying appropriate techniques and comparative methods, aided by a few lucky finds from peat bogs, deserts, and frozen soils, is able to fill up a good deal of the gap.

1. What is the author's main purpose in the passage?  
(A) To point out the importance of recent advances in archaeology  
(B) To describe an archaeologist's education  
(C) To explain how archaeology is a source of history  
(D) To encourage more people to become archaeologists
2. According to the passage, the archaeological record consists of  
(A) spoken words of great historical significance  
(B) the fossilized results of human activity  
(C) organic materials  
(D) ephemeral ideas
3. The word "they" in line 13 refers to  
(A) scraps                      (B) words                      (C) troops                      (D) humans
4. Which of the following is NOT mentioned as an example of an organic material?  
(A) Stone                      (B) Wool                      (C) Grass                      (D) Hair
5. The author mentions all of the following archaeological discovery sites EXCEPT  
(A) urban areas                      (B) peat bogs  
(C) very hot and dry lands                      (D) earth that has been frozen
6. The paragraph following the passage most probably discusses  
(A) techniques for recording oral histories  
(B) certain battlefield excavation methods  
(C) some specific archaeological discoveries  
(D) building materials of the nineteenth and twentieth centuries

## **Passage 4**

Many artists late in the last century were in search of a means to express their individuality. Modern dance was one of the ways some of these people sought to free their creative spirit. At the beginning there was no exacting technique, no foundation from which to build. In later years trial, error, and genius founded the techniques and the principles of the movement. Eventually, innovators even drew from what they considered the dread ballet, but first they had to discard all that was academic so that the new could be discovered. The beginnings of modern dance were happening before Isadora Duncan, but she was the first person to bring the new dance to general audiences and see it accepted and acclaimed. Her search for a natural movement form sent her to nature. She believed movement should be as natural as the swaying of the trees and the rolling waves of the sea, and should be in harmony with the movements of the Earth. Her great contributions are in three areas.

First, she began the expansion of the kinds of movements that could be used in dance. Before Duncan danced, ballet was the only type of dance performed in concert. In the ballet the

feet and legs were emphasized, with virtuosity shown by complicated, codified positions and movements. Duncan performed dance by using all her body in the freest possible way. Her dance stemmed from her soul and spirit. She was one of the pioneers who broke tradition so others might be able to develop the art.

Her second contribution lies in dance costume. She discarded corset, ballet shoes, and stiff costumes. These were replaced with flowing Grecian tunics, bare feet, and unbound hair. She believed in the natural body being allowed to move freely, and her dress displayed this ideal.

Her third contribution was in the use of music. In her performances she used the symphonies of great masters, including Beethoven and Wagner, which was not the usual custom. She was as exciting and eccentric in her personal life as in her dance.

- Which of the following would be the best title for the passage?
  - The Evolution of Dance in the Twentieth Century
  - Artists of the Last Century
  - Natural Movement in Dance
  - A Pioneer in Modern Dance
- According to the passage, what did nature represent to Isadora Duncan?
  - Something to conquer
  - A model for movement
  - A place to find peace
  - A symbol of disorder
- Which of the following is NOT mentioned in the passage as an area of dance that Isadora Duncan worked to change?
  - The music
  - The stage sets
  - Costumes
  - Movements
- Compared to those of the ballet, Isadora Duncan's costumes were less
  - costly
  - colorful
  - graceful
  - restrictive
- What does the paragraph following the passage most probably discuss?
  - Isadora Duncan's further contribution to modern dance
  - The music customarily used in ballet
  - Other aspects of Isadora Duncan's life
  - Audience acceptance of the new form of dance

## Passage 5

The theory of plate tectonics describes the motions of the lithosphere, the comparatively rigid outer layer of the Earth that includes all the crust and part of the underlying mantle. The lithosphere is divided into a few dozen plates of various sizes and shapes, in general the plates are in motion with respect to one another. A mid-ocean ridge is a boundary between plates where new lithospheric material is injected from below. As the plates diverge from a mid-ocean ridge they slide on a more yielding layer at the base of the lithosphere.

Since the size of the Earth is essentially constant, new lithosphere can be created at the mid-ocean ridges only if an equal amount of lithospheric material is consumed elsewhere. The site of this destruction is another kind of plate boundary: a subduction zone. There one plate dives under the edge of another and is reincorporated into the mantle. Both kinds of plate boundary are associated with fault systems, earthquakes and volcanism, but the kinds of geologic activity observed at the two boundaries are quite different.



**PRACTICE TEST 48 – May 1993**

The idea of sea-floor spreading actually preceded the theory of plate tectonics. In its original version, in the early 1960's, it described the creation and destruction of the ocean floor, but it did not specify rigid lithospheric plates. The hypothesis was substantiated soon afterward by the discovery that periodic reversals of the Earth's magnetic field are recorded in the oceanic crust. As magma rises under the mid-ocean ridge, ferromagnetic minerals in the magma become magnetized in the direction of the geomagnetic field. When the magma cools and solidifies, the direction and the polarity of the field are preserved in the magnetized volcanic rock. Reversals of the field give rise to a series of magnetic stripes running parallel to the axis of the rift. The oceanic crust thus serves as a magnetic tape recording of the history of the geomagnetic field that can be dated independently; the width of the stripes indicates the rate of the sea-floor spreading.

1. What is the main topic of the passage?  
(A) Magnetic field reversal  
(B) The formation of magma  
(C) The location of mid-ocean ridges  
(D) Plate tectonic theory
2. According to the passage, there are approximately how many lithospheric plates?  
(A) Six  
(B) Twelve  
(C) Twenty-four or more  
(D) One thousand nine hundred
3. Which of the following is true about tectonic plates?  
(A) They are moving in relationship to one other  
(B) They have unchanging borders  
(C) They are located far beneath the lithosphere  
(D) They have the same shape
4. According to the passage, which of the following statements about the lithosphere is LEAST likely to be true?  
(A) It is a relatively inflexible layer of the Earth  
(B) It is made up entirely of volcanic ash  
(C) It includes the crust and some of the mantle of the Earth  
(D) It is divided into plates of various shapes and sizes
5. What does the author imply about the periodic reversal of the Earth's magnetic field?  
(A) It is inexplicable  
(B) It supports the hypothesis of sea-floor spreading  
(C) It was discovered before the 1960's  
(D) It indicates the amount of magma present
6. The author states that the width of the stripes preserved in magnetized volcanic rock give information about the  
(A) date of a volcanic eruption  
(B) speed of sea-floor spreading  
(C) width of oceanic crust  
(D) future behavior of the geomagnetic field

# PRACTICE TEST 49

## August 1993

### Passage 1

The first jazz musicians played in New Orleans during the early 1900's. After 1917, many of the New Orleans musicians moved to the south side of Chicago, where they continued to play their style of jazz. Soon Chicago was the new-center for jazz.

Several outstanding musicians emerged as leading jazz artists in Chicago. Daniel Lotus "Satchmo" Armstrong, born in New Orleans in 1900, was one. Another leading musician was Joseph King Oliver, who is also credited with having discovered Armstrong, when they were both in New Orleans. While in Chicago, Oliver asked Armstrong, who was in New Orleans, to join his band. In 1923 King Oliver's Creole Jazz Band made the first important set of recordings by a Hot Five and Hot Seven bands under Louis Armstrong also made recordings of special note.

Although Chicago's South Side was the main jazz center, some musicians in New York were also demanding attention in jazz circles. In 1923 Fletcher Henderson already had a ten-piece band that played jazz. During the early 1930's, the number of players grew to sixteen. Henderson's band was considered a leader in what some people have called the Big Band Era. By the 1930's, big dance bands were the rage. Large numbers of people went to ballrooms to dance to jazz music played by big bands.

One of the most popular and also a very famous jazz band was the Duke Ellington band. Edward "Duke" Ellington was born in Washington, D.C., in 1899 and died in New York City in 1974. He studied the piano as a young boy and later began writing original musical compositions. The first of Ellington's European tours came in 1933. He soon received international fame for his talent as a band leader, composer, and arranger. Ten years later, Ellington began giving annual concerts at Carnegie Hall in New York City. People began to listen to jazz in the same way, that they had always listened to classical music.

1. It can be inferred from the passage that Louis Armstrong went to Chicago for which of the following reasons?  
(A) To form his own band  
(B) To learn to play Chicago - style jazz  
(C) To play in Joseph Oliver's band  
(D) To make recordings with the Hot Five
2. According to the passage, which of the following Black bands was the first to make a significant set of jazz recordings?  
(A) The Hot Seven band  
(B) Fletcher Henderson's band  
(C) The Red Hot Peppers band  
(D) King Oliver's Creole jazz Band
3. As used in line 12, the word "note" could best be replaced by which of the following?  
(A) distinction  
(B) memorandum  
(C) mood  
(D) song
4. The nickname "Duke" belonged to which of the following bandleaders?  
(A) Louis Armstrong  
(B) Joseph Oliver  
(C) Edward Ellington  
(D) Fletcher Henderson
5. The passage supports which of the following conclusions?  
(A) By the 1930's jazz was appreciated by a wide audience  
(B) Classical music had a great impact on jazz  
(C) jazz originated in New Orleans in the early nineteenth century  
(D) jazz band were better known in, Europe than in the United States



### Passage 3

No sooner had the first intrepid male aviators safely returned to Earth than it seemed that women, too, had been smitten by an urge to fly. From mere spectators, they became willing passengers and finally pilots in their own right, plotting their skills and daring line against the hazards of the air and the skepticism of their male counterparts. In doing so they enlarged the traditional bounds of a women's world, won for their sex a new sense of competence and achievement, and contributed handsomely to the progress of aviation.

But recognition of their abilities did not come easily. "Men do not believe us capable." the famed aviator Amelia Earhart once remarked to a friend. "Because we are women, seldom are we trusted to do an efficient job." Indeed old attitudes died hard: when Charles Lindbergh visited the Soviet Union in 1938 with his wife, Anne-herself a pilot and gifted proponent of aviation - he was astonished to discover both men and women flying in the Soviet Air Force.

Such conventional wisdom made it difficult for women to raise money for the up-to-date equipment they needed to compete on an equal basis with men. Yet they did compete, and often they triumphed finally despite the odds.

Ruth Law, whose 590-mile flight from Chicago to Hornell, New York, set a new nonstop distance record in 1916, exemplified the resourcefulness and grit demanded of any woman who wanted to fly. And when she addressed the Aero Club of America after completing her historic journey, her plainspoken words testified to a universal human motivation that was unaffected by gender: "My flight was done with no expectation of reward," she declared, "just purely for the love of accomplishment."

- Which of the following is the best title for this passage?
 

(A) A Long Flight	(B) Women in Aviation History
(C) Dangers Faced by Pilots	(D) Women Spectators
- According to the passage, women pilots were successful in all of the following EXCEPT
  - challenging the conventional role of women
  - contributing to the science of aviation
  - winning universal recognition from men
  - building the confidence of women
- What can be inferred from the passage about the United States Air Force in 1938?
  - It had no women pilots.
  - It gave pilots handsome salaries.
  - It had old planes that were in need of repair.
  - It could not be trusted to do an efficient job.
- In their efforts to compete with men, early women pilots had difficulty in
 

(A) addressing clubs	(B) flying nonstop
(C) setting records	(D) raising money
- According to the passage, who said that flying was done with no expectation of reward?
 

(A) Amelia Earhart	(B) Charles Lindbergh
(C) Anne Lindbergh	(D) Ruth Law

## Passage 4

Insects' lives are very short and they have many enemies, but they must survive long enough to breed and perpetuate their kind. The less insect-like they look, the better their chance of survival. To look "inedible" by resembling or imitating plants is a deception widely practiced by insects. Mammals rarely use this type of camouflage, but many fish and invertebrates do.

The stick caterpillar is well named. It is hardly distinguishable from a brown or green twig. This caterpillar is quite common and can be found almost anywhere in North America. It is also called "measuring worm" or "inchworm." It walks by arching its body, then stretching out and grasping the branch with its front feet then looping its body again to bring the hind feet forward. When danger threatens, the stick caterpillar stretches its body away from the branch at an angle and remains rigid and still, like a twig, until the danger has passed.

Walking sticks, or stick insects, do not have to assume a rigid, twig-like pose to find protection; they look like inedible twigs in any position. There are many kinds of walking sticks, ranging in size from the few inches of the North American variety to some tropical species that may be over a foot long. When at rest their front legs are stretched out, heightening their camouflage. Some of the tropical species are adorned with spines or ridges, imitating the thorny bushes or trees in which they live.

Leaves also seem to be a favorite object for insects to imitate. Many butterflies can suddenly disappear from view by folding their wings and sitting quietly among the foliage that they resemble.

1. What is the main subject of the passage?  
(A) Caterpillars that live in trees  
(B) The feeding habits of insects  
(C) How some insects camouflage themselves  
(D) Insects that are threatened with extinction
2. In lines 1 and 4, the word "enemies" refers to  
(A) other creatures competing for space  
(B) extreme weather conditions  
(C) creatures that eat insects  
(D) inedible insects
3. According to the passage, how does the stick caterpillar make itself look like a twig?  
(A) By holding its body stiff and motionless  
(B) By looping itself around a stick  
(C) By changing the color of its skin  
(D) By laying its body flat against a branch
4. Which of the following is true of stick insects?  
(A) They resemble their surroundings all the time.  
(B) They make themselves look like other insects.  
(C) They are camouflaged only when walking.  
(D) They change color to make themselves visible.
5. Which of the following are NOT mentioned in the passage as objects that are imitated as a means of protection?  
(A) Thorns  
(B) Flowers  
(C) Leaves  
(D) Sticks
6. In which paragraph does the author describe the way in which stick caterpillars move?  
(A) Paragraph one  
(B) Paragraph two  
(C) Paragraph three  
(D) Paragraph four

7. Where in the passage does the author describe the habitat of tropical stick insects?
- (A) Line 7  
(B) Lines 10-11  
(C) Lines 13-15  
(D) Lines 16-17

### Passage 5

Anthropologists have pieced together the little they know about the history of left - handedness and right - handedness from indirect evidence. Though early men and women did not leave written records, they did leave tools, bones, and pictures. Stone Age hand axes and hatchets were made from stones that were carefully chipped away to form sharp cutting edges. In some, the pattern of chipping shows that these tools and weapons were made by right handed people, designed to fit comfortably into a right hand. Other Stone Age implements were made by or for left-handers. Prehistoric pictures, painted on the walls of caves, provide further clues to the handedness of ancient people. A right - hander finds it easier to draw faces of people and animals facing toward the left, whereas a left - hander finds it easier to draw faces facing toward the right. Both kinds of faces have been found in ancient painting. On the whole, the evidence seems to indicate that prehistoric people were either ambidextrous or about equally likely to be left - or right - handed.

But, in the Bronze Age, the picture changed. The tools and weapons found from that period are mostly made for right - handed use. The predominance of right - handedness among humans today had apparently already been established.

- What is the main topic of the passage?
  - The purpose of ancient implements
  - The significance of prehistoric cave paintings
  - The development of right - handedness and left - handedness
  - The similarities between the Stone Age and Bronze Age
- Which of the following helped lead to conclusions about whether Stone Age people preferred one hand to the other?
  - Petrified forms of vegetation
  - Patterns of stone chipping
  - Fossilized waste material
  - Fossilized footprints
- In line 8, the word "further" is closest in meaning to which of the following?
  - advanced
  - additional
  - artistic
  - factual
- According to the passage, a person who is right - handed is more likely to draw people and animals that are facing
  - upward
  - downward
  - toward the right
  - toward the left
- In line 13, the words "the picture" refer to which of the following?
  - Faces of animals and people
  - People's view from inside a cave
  - People's tendency to work with either hand
  - The kinds of paint used on cave walls
- Where in the passage does the author mention a type of evidence that was NOT studied by anthropologists researching the handedness of ancient people?
  - Lines 2-3
  - Lines 7-8
  - Lines 11-12
  - Lines 14-15
- The author implies that which of the following developments occurred around the time of the Bronze Age
  - The establishment of written records

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- (B) A change in the styles of cave painting
- (C) An increase in human skill in the handling of tools
- (D) The prevalence of righthandedness

# PRACTICE TEST 50

## January 1992

### Passage 1

The first navigational lights in the New World were probably lanterns hung at harbor entrances. The first lighthouse was put up by the Massachusetts Bay Colony in 1766 on Little Brewster Island at the entrance to Boston Harbor. Paid for and maintained by light dues levied on ships, the original beacon was blown up in 1776. By then there were only a dozen or so true lighthouses in the colonies. Little over a century later, there were 700 lighthouses.

The first eight erected on the West Coast in the 1850's featured the same basic New England design: a Cape Cod dwelling with the tower rising from the center or standing close by. In New England and elsewhere, though, lighthouses reflected a variety of architectural styles. Since most stations in the Northeast were built on rocky eminences, enormous towers were not the rule. Some were made of stone and brick, others of wood or metal. Some stood on pilings or stilts: some were fastened to rock with iron rods. Farther south, from Maryland through the Florida Keys, the coast was low and sandy. It was often necessary to build tall towers there – massive structures like the majestic Cape Hatteras, North Carolina lighthouse, which was lit in 1870. At 190 feet, it is the tallest brick lighthouse in the country.

Notwithstanding differences in appearance and construction, most American lighthouses shared several features: a light, living quarters, and sometimes a bell (or, later, a foghorn). They also had something else in common: a keeper and, usually, the keeper's family. The keeper's essential task was trimming the lantern wick in order to maintain a steady bright flame. The earliest keepers came from every walk of life—they were seamen, farmers, mechanics, rough mill hands—and appointments were often handed out by local customs commissioners as political plums. After the administration of lighthouses was taken over in 1852 by the United States Lighthouse Board, an agency of the Treasury Department, the keeper corps gradually became highly professional.

1. What is the best title for the passage.  
(A) The Lighthouse on Little Brewster Island  
(B) The Life of a Lighthouse Keeper  
(C) Early Lighthouses in the United States  
(D) The Modern Profession of Lighthouse Keeping
2. Why does the author mention the Massachusetts Bay Colony?  
(A) It was the headquarters of the United States Lighthouse Board.  
(B) Many of the tallest lighthouses were built there.  
(C) The first lantern wicks were developed there.  
(D) The first lighthouse in North America was built there.
3. It can be inferred from the passage that light-houses in the Northeast did not need high towers because  
(A) ships there had high masts  
(B) coastal waters were safe  
(C) the coast was straight and unobstructed  
(D) the lighthouse were built on high places
4. According to the passage, where can the tallest brick lighthouse in the United States be found?  
(A) Little Brewster Island  
(B) The Florida Keys  
(C) Cape Hatteras  
(D) Cape Cod
5. In line 19, to which of the following does the word "They" refer?  
(A) Lighthouses  
(B) Differences  
(C) Quarters  
(D) Features



6. It can be inferred from the passage that the Treasury Department, after assuming control of the lighthouses, improved which of the following?
- (A) The training of the lighthouse keepers                      (B) The sturdiness of the lighthouses  
(C) The visibility of the lights                                      (D) The locations of the lighthouses
7. Where in the passage does the author tell how lighthouses in the Northeast were fastened to the surrounding rock?
- (A) Lines 3-4                      (B) Line 12                      (C) Lines 14-15                      (D) Line 19

## **Passage 2**

Homing pigeons are placed in a training program from about the time they are twenty-eight days of age. They are taught to enter the loft through a trap and to exercise above and around the loft, and gradually they are taken away for short distances in wicker baskets and released. They are then expected to find their way home in the shortest possible time.

In their training flights or in actual races, the birds are taken to prearranged distant points and released to find their way back to their own lofts. Once the birds are liberated, their owners, who are standing by at the home lofts, anxiously watch the sky for the return of their entries. Since time is of the essence, the speed with which the birds can be induced to enter the loft trap may make the difference between gaining a win or a second place.

The head of a homing pigeon is comparatively small, but its brain is one quarter larger than that of the ordinary pigeon. The homing pigeon is very intelligent and will persevere to the point of stubbornness some have been known to fly a hundred miles off course to avoid a storm.

Some homing pigeon experts claim that this bird is gifted with a form of built-in radar that helps it find its own loft after hours of flight, for hidden under the head feathers are two very sensitive ears, while the sharp, prominent eyes can see great distances in daytime.

Why do homing pigeons fly home? They are not unique in this inherent skill: it is found in most migratory birds, in bees, ants, toads, and even turtles, which have been known to travel hundreds of miles to return to their homes. But in the animal world, the homing pigeon alone can be trusted with its freedom and trained to carry out the missions that people demand.

1. What is the purpose of the passage?
- (A) To convince the reader to buy a homing pigeon  
(B) To inform the reader about homing pigeons and their training  
(C) To protect homing pigeons against the threat of extinction  
(D) To encourage the owners of homing pigeons to set the birds free
2. According to the passage, what happens to homing pigeons when they are about a month old?
- (A) They are kept in a trap.                                      (B) They enter their first race.  
(C) They begin a training program.                                      (D) They get their wings clipped and marked.
3. In line 8, when the author states that the owners "anxiously watch the sky" there is the implication that the owners
- (A) want their pigeon to win the race  
(B) are sending radar signals to their pigeons  
(C) do not know whether the race began on time  
(D) do not trust the rules set down by the judges
4. According to the passage, what is the difference between a homing pigeon and an ordinary one?

- (A) The span of the wings (B) The shape of the eyes  
 (C) The texture of the feathers (D) The size of the brain
5. The author mentions all of the following at tributes that enable a homing pigeon to return home EXCEPT  
 (A) instinct (B) air sacs (C) sensitive ears (D) good eyes
6. In line 16, the pronoun "it" refers to which of the following?  
 (A) Radar (B) Bird (C) Loft (D) Form
7. Why does the author mention bees, ants, toads, and turtles in the last paragraph?  
 (A) To describe some unusual kinds of pets  
 (B) To measure distances traveled by various animals  
 (C) To compare their home-finding abilities with those of homing pigeons  
 (D) To interest the reader in learning about other animals

### Passage 3

Central Park, emerging from a period of abuse and neglect, remains one of the most popular attractions in New York City, with half a million out-of-towners among the more than 3 million people who visit the park yearly. About 15 million individual visits are made each year.

Summer is the season for softball, concerts, and Shakespeare; fall is stunning; winter is wonderful for sledding, skating, and skiing; and springtime is the loveliest of all. It was all planned that way.

About 130 years ago Frederic Law Olmsted and his collaborator Calvert Vaux submitted their landscaping plan for a rectangular parcel two miles north of the town's center. The barren swampy tract, home for squatters and a bone-boiling works that made glue, was reported as 'a pestilential spot where miasmatic odors taint every breath of air.' It took 16 years for workers with pickaxes and shovels to move 5 million cubic feet of earth and rock, and to plant half a million trees and shrubs, making a tribute to nature—a romantic nineteenth-century perception of nature.

What exists today is essentially Olmsted and Vaux's plan. with more trees, buildings, and asphalt. Landscape architects still speak reverently of Olmsted's genius and foresight, and the sensitive visitor can see the effects he sought.

1. With what subject is the passage mainly concerned?  
 (A) The lives of Olmsted and Vaux  
 (B) New York City's tourist industry  
 (C) Examples of nineteenth-century art in New York City  
 (D) The development of Central Park
2. According to the passage. which is the prettiest time of year in Central Park?  
 (A) Winter (B) Spring (C) Summer (D) Fall
3. It can be inferred that the rectangular parcel mentioned in line 9 is  
 (A) the site of Central Park (B) a gift presented to New York  
 (C) a skyscraper in New York (D) the proposed design for Central Park
4. According to the passage. before Olmsted and Vaux began their work, the area now occupied by Central Park was  
 (A) a romantic place (B) an infertile, marshy space  
 (C) a green and hilly park (D) a baseball field
5. It can be inferred from the passage that today's landscape architects praise Olmsted for his  
 (A) enthusiasm for sport

- (B) skill at designing factories
  - (C) concern for New York's homeless people
  - (D) foresight in anticipating New York's urbanization
6. Where in the passage does the author mention unpleasant smells?
- (A) Lines 1-3
  - (B) Lines 5-7
  - (C) Lines 10-12
  - (D) Lines 15-16

**Passage 4**

The difference between a liquid and a gas is obvious under the conditions of temperature and pressure commonly found at the surface of the Earth. A liquid can be kept in an open container and fills it to the level of a free surface. A gas forms no free surface but tends to diffuse throughout the space available; it must therefore be kept in a closed container or held by a gravitation field, as in the case of a planet's atmosphere. The distinction was a prominent feature of early theories describing the phases of matter. In the nineteenth century, for example, one theory maintained that a liquid could be "dissolved" in a vapor without losing its identity, and another theory held that the two phases are made up of different kinds of molecules: liquidons and gasons. The theories now prevailing take a quite different approach by emphasizing what liquids and gases have in common. They are both forms of matter that have no permanent structure, and they both flow readily. They are fluids.

The fundamental similarity of liquids and gases becomes clearly apparent when the temperature and pressure are raised somewhat. Suppose a closed container partially filled with a liquid is heated. The liquid expands, or in other words becomes less dense; some of it evaporates. In contrast, the vapor above the liquid surface becomes denser as the evaporated molecules are added to it. The combination of temperature and pressure at which the densities become equal is called the critical point. Above the critical point the liquid and the gas can no longer be distinguished; there is a single, undifferentiated fluid phase of uniform density.

1. Which of the following would be the most appropriate title for the passage?
- (A) The Properties of Gases and Liquids
  - (B) High Temperature Zones on the Earth
  - (C) The Beginnings of Modern Physics
  - (D) New Containers for Fluids
2. According to the passage, the difference between a liquid and a gas under normal conditions on Earth is that the liquid
- (A) is affected by changes in pressure
  - (B) has a permanent structure
  - (C) forms a free surface
  - (D) is considerably more common
3. It can be inferred from the passage that the gases of the Earth's atmosphere are contained by
- (A) a closed surface
  - (B) the gravity of the planet
  - (C) the field of space
  - (D) its critical point
4. According to the passage, in the nineteenth century some scientists viewed liquidons and gasons as
- (A) fluids
  - (B) dissolving particles
  - (C) heavy molecules
  - (D) different types of molecules
5. According to the passage, what happens when the temperature is increased in a closed container holding a liquid?
- (A) The liquid and gas phases become more similar.
  - (B) The liquid and the gas become less dense.
  - (C) The container expands.
  - (D) The liquid evaporates out of the container.
6. According to the passage, which of the following is the best definition of the critical point?
- (A) When the temperature and the pressure are raised

- (B) When the densities of the two phases are equal
- (C) When the pressure and temperature are combined
- (D) When the container explodes

### Passage 5

Lucinda Childs's spare and orderly dances have both mystified and mesmerized audiences for more than a decade. Like other so-called "postmodern" choreographers, Childs sees dance as pure form. Her dances are mathematical explorations of geometric shapes, and her dancers are expressionless, genderless instruments who etch intricate patterns on the floor in precisely timed, repetitive sequences of relatively simple steps. The development of Childs's career, from its beginning in the now legendary Judson Dance Theater, paralleled the development of minimalist art, although the choreographer herself has taken issue with those critics who describe her work as minimalist. In her view, each of her dances is simply "an intense experience of intense looking and listening," in addition to performing with her troupe, the Lucinda Childs Dance Company. Childs has appeared in the avant-garde opera *Einstein on the Beach*, in two of Broadway plays, and in the films *Jeonae d'Iman* by Marie Jimenez and *21:12 Piano Bar*.

As a little girl, Childs had dreamed of becoming an actress. She appeared regularly in student productions throughout her school years, and when she was about eleven she began to take drama lessons. It was at the suggestion of her acting coach that the youngster, who was, by her own admission, "clumsy, shapeless, and on the heavy side," enrolled in a dancing class. Among her early teachers were Hanya Holm, the dancer and choreographer who introduced the Wigman system of modern dance instruction to the United States, and Helen Tamiris, the Broadway choreographer. Pleased with her pupil's progress, Ms. Tamiris eventually asked the girl to perform onstage. After that exhilarating experience, Lucinda Childs "wasn't sure [she] even wanted to be an actress anymore."

1. What is the passage mainly about?
  - (A) Minimalist art
  - (B) Mathematical forms
  - (C) A choreographer
  - (D) Broadway plays
2. The word "its" in line 6 refers to
  - (A) career
  - (B) development
  - (C) steps
  - (D) the Judson Dance Theater
3. The work of Lucinda Childs has been compared to which of the following?
  - (A) Avant-garde opera
  - (B) The Wigman system
  - (C) Realistic drama
  - (D) Minimalist art
4. In which artistic field did Childs first study?
  - (A) Painting
  - (B) Dance
  - (C) Drama
  - (D) Film

# PRACTICE TEST 51

## May 1992

### Passage 1

In 1781 twelve families trooped north from Mexico to California. On a stream along the desert's edge they built a settlement called Los Angeles. For many years it was a market town where nearby farmers and ranchers met to trade.

Then in 1876 a railroad linked Los Angeles to San Francisco and, through San Francisco to the rest of the country. The next year farmers sent their first trainload of oranges east. By a new railroad provided a direct route between Los Angeles and Chicago.

Then in the 1890 's oil was discovered in the city. As derricks went up, workers built many highways and pipe lines. Digging began on a harbor that would make Los Angeles not only an ocean port but also a fishing center. The harbor was completed in 1914. That year the Panama Canal opened. Suddenly Los Angeles was the busiest port on the Pacific Coast.

Today the city is the main industrial center in the West. It produces goods not only for other West Coast communities but also for those in other parts of the country. It leads the nation in making air planes and equipment for exploring outer space. Many motion pictures and television programs are filmed in Los Angeles. The city is also the business center for states in the West. Improvements in transportation are the main reason for Los Angeles' growth.

1. According to the passage what was the main commercial activity of Los Angeles during the years directly following its settlement?  
(A) Fruit growing (B) Oil drilling  
(C) Fishing (D) Trading
2. According to the passage in which year were oranges first shipped from Los Angeles to the East Coast by train?  
(A) 1781 (B) 1876 (C) 1877 (D) 1890
3. San Francisco is mentioned in the passage for which of the following reasons?  
(A) The settlers who founded Los Angeles came from San Francisco.  
(B) San Francisco linked Los Angeles with the rest of the country  
(C) San Francisco was a market town where farmers came to trade.  
(D) Oil was discovered in San Francisco in the 1890's.
4. Where in the passage does the author state the principal cause of the expansion of Los Angeles?  
(A) Line 5 (B) Line 7 (C) Line 11 (D) Lines 15-16

### Passage 3

The term 'virus is derived from the Latin word for poison. or slime. It was originally applied to the noxious stench emanating from swamps that was thought to cause a variety of diseases in the centuries before microbes were discovered and specifically linked to illness. But it was not until almost the end of the nineteenth century that a true virus was proven to be the cause of a disease.

The nature of viruses made them impossible to detect for many years even after bacteria had been discovered and studied. Not only are viruses too small to be seen with a light microscope, they also cannot be detected through their biological activity, except as it occurs in conjunction with other organisms. In fact, viruses show no traces of biological activity by themselves. Unlike bacteria, they are not living agents in the strictest sense. Viruses are very simple pieces of organic material composed only of nucleic acid, either DNA or RNA, enclosed in a coat of protein made up of simple structural units. (Some viruses also contain carbohydrates and lipids.) They are parasites, requiring human, animal, or plant cells to live. The virus replicates by attaching to a cell and injecting its nucleic acid. Once inside the cell, the DNA or RNA that contains the virus' genetic information takes over the cell's biological machinery, and the cell begins to manufacture viral proteins rather than its own.

- Which of the following is the best title for the passage.
 

(A) New Developments in Viral Research	(B) Exploring the Causes of Disease
(C) DNA: Nature's Building Block	(D) Understanding Viruses
- Before microbes were discovered It was believed that some diseases were caused by
 

(A) germ-carrying insects	(B) certain strains of bacteria
(C) foul odors released from swamps	(D) slimy creatures living near swamps
- The word "proven" in line 4 is closest meaning to which of the following.
 

(A) Shown	(B) Feared	(C) Imagined	(D) Considered
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- The word "nature" in line 6 is closest in meaning to which of the following?
 

(A) Self-sufficiency	(B) Shapes	(C) Characteristics	(D) Speed
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- The author implies that bacteria were investigated earlier than viruses because
 

(A) bacteria are easier to detect	(B) bacteria are harder to eradicate
(C) viruses are extremely poisonous	(D) viruses are found only in hot climates
- All of the following may be components of a virus EXCEPT
 

(A) RNA	(B) plant cells	(C) carbohydrates	(D) a coat of protein
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## Passage 4

Dancer Martha Graham trained her body to move in different ways and in different contexts from any before attempted, "life today is nervous, sharp, and zigzag," she said. "It often stops in midair. That is what I aim for in my dances." She insists she never started out to be a rebel. It was only that the emotions she had to express could not be projected through any of the traditional forms.

This was in 1925. All forms of art were undergoing a revolution. The theories of psychology were being used to extend the boundaries of poetry, music, and painting.

Martha Graham's debut dance concert in her new idiom occurred on April 18, 1926. Connoisseurs of dance, gathered at the Forty-eighth Street Theater in New York, witnessed Martha Graham's first foray into this new realm of dance. They saw, through such dance sequences as "Three Gobi Maidens." and "A Study in Lacquer, desires and conflicts expressed

through bodily movements. These critics agreed that something entirely new, a departure from all previous forms, had been witnessed.

In the early thirties, she founded the Martha Graham School of Contemporary Dance. Her classes were used as a laboratory for her stage works, and her stage works in turn were a means for attaching new pupils to her school—a sort of self-winding process, with herself as the key to the development.

Martha Graham and the school she has founded are virtually synonymous with the modern dance. She had not only produced a technique of the dance, choreographed and taught it, but her disciples have gone out to fill the modern dance world.

1. What does the passage mainly discuss.
  - (A) Martha Graham's development of modern dance
  - (B) The revolution of art forms in the 1920's
  - (C) A dancer's view of life
  - (D) The Martha Graham School of Contemporary Dance
  
2. It can be inferred from the passage that in the beginning of her career, Martha Graham's mode of dance was
  - (A) readily accepted
  - (B) considered rebellious
  - (C) virtually ignored
  - (D) accepted only in New York
  
3. It can be inferred from the passage that Martha Graham's style of dance differed from traditional dance in the
  - (A) type of movements
  - (B) speed of the performance
  - (C) variety of themes
  - (D) ages of the performers
  
4. In lines 16, the author uses the phrase "a sort of self-winding process" to illustrate
  - (A) the new steps Graham developed for dance
  - (B) the relationship between Graham's performances and her school
  - (C) the discipline demanded in Graham's school
  - (D) the physical endurance of Graham's dancers
  
5. According to the passage, what is the present status of Martha Graham's work?
  - (A) It is historically interesting, but is no longer popular.
  - (B) It has evolved into something completely different.
  - (C) It is carried on by her students.
  - (D) It causes heated debates

## **Passage 5**

If the salinity of ocean waters is analyzed, it is found to vary only slightly from place to place. Nevertheless, some of these small changes are important. There are three basic processes that cause a change in oceanic salinity. One of these is the subtraction of water from the ocean by means of evaporation—conversion of liquid water to water vapor. In this manner, the salinity is increased, since the salts stay behind. If this is carried to the extreme, of course, white crystals of salt would be left behind: this, by the way, is how much of the table salt we use is actually obtained.

The opposite of evaporation is precipitation, such as rain, by which water is added to the ocean. Here the ocean is being diluted so that the salinity is decreased. This may occur in areas of high rainfall or in coastal regions where rivers flow into the ocean. Thus salinity may be

increased by the subtraction of water by evaporation. or decreased by the addition of fresh water by precipitation or runoff.

Normally in tropical regions where the Sun is very strong, the ocean salinity is somewhat higher than it is in other parts of the world where there is not as much evaporation. Similarly, in coastal regions where rivers dilute the sea salinity is somewhat lower than in other oceanic areas.

A third process by which salinity may be altered is associated with the formation and melting of sea ice. When seawater is frozen, the dissolved materials are left behind. In this manner, seawater directly beneath freshly formed sea ice has a higher salinity than it did before the ice appeared. Of course, when this ice melts, it will tend to decrease the salinity of the surrounding water.

In the Weddell Sea, off Antarctica, the densest water in the oceans is formed as a result of this freezing process, which increases the salinity of cold water. This heavy water sinks and is found in the deeper portions of the oceans of the world.

- What does the passage mainly discuss?
  - The bodies of water of the world
  - The elements of salt
  - The many forms of ocean life
  - The salinity of ocean water
- According to the passage, the ocean generally has more salt in
  - coastal areas
  - tropical areas
  - rainy areas
  - turbulent areas
- All of the following are processes that decrease salinity EXCEPT
  - evaporation
  - precipitation
  - runoff
  - melting
- Which of the following statements about the salinity of a body of water can best be inferred from the passage?
  - The temperature of the water is the most important factor.
  - How quickly the water moves is directly related to the amount of salt.
  - Ocean salinity has little effect on sea life.
  - Various factors combine to cause variations in the salt content of water.
- The word "it" in line 19 refers to which of the following?
  - Sea ice
  - Salinity
  - Seawater
  - Manner
- Why does the author mention the Weddell Sea?
  - To show that this body of water has salinity variations
  - To compare Antarctic waters with Arctic waters
  - To give an example of cold-water salinity
  - To point out the location of deep waters
- Which of the following is NOT a result of the formation of ocean ice?
  - The salt remains in the water
  - The surrounding water sinks
  - Water salinity decreases
  - The water becomes denser
- What can be inferred about the water near the bottom of oceans?
  - It is relatively warm.
  - Its salinity is relatively high.
  - It does not move.
  - It is formed by melting sea ice.





Martha Graham's territory of innumerable dances and a self-sufficient dance technique is a vast but closed territory, since to create an art out of one's experience alone ~ ultimately ~ self-limiting act. If there had been other choreographers with Graham's gifts and her stature, her work might have seemed a more balanced part of the story of American dance. but as she built her repertory, her own language seemed to shut out all other kinds. Even when an audience thinks it discerns traces of influence from other dance styles, the totality of Graham's theatrical idiom, its control of costumes. lights. and every impulse of the dance makes the reference seem a mirage. Dance is not her main subject. It is only her servant.

Graham had achieved her autonomy by 1931. By that time. three giant figures who had invented the new twentieth-century dance were dead: Sergei Diaghilev, Anna Pavlova, and Isadora Duncan. Their era ended with them, and their dance values nearly disappeared. Their colleagues Michel Fokine and Ruth St. Denis lived on in America like whales on the beach. During the twenties, Martha Graham and her colleagues had rescued art-dance from vaudeville and movies and musical comedy and all the resonances of the idyllic mode in the United States, but in so doing they closed the channels through which different kinds of dance could speak to one another-and these' stayed closed for half a century. Modern dance dedicated itself to deep significance. It gave up lightness it gave up a wealth of exotic color, it gave up a certain kind of theatrical wit and that age-old mobile exchange between a dancer and the dancer's rhythmical and musical material. No material in modern dance was neutral. The core of the art became an obsession with meaning and allegory as expressed in bodies. Modern dance excluded its own theatrical traditions of casual play, gratuitous liveliness, the spontaneous pretense, and the rainbow of genres that had formed it. But all these things survived in the public domain, where they had always lived, and they have continued to surface in American dance, if only by accident.

- What is the main purpose of the passage?
  - To discuss Martha Graham's influences on modern dance
  - To trace the origins of different dance techniques
  - To argue the role of modern dance as an artistic form of expression
  - To compare several famous women choreographers of the twentieth century
- According to the passage, which of the following most influenced Martha Graham's dances and techniques?
 

(A) Her own experiences	(B) Exotic and idyllic themes
(C) Familiar classical stories	(D) The works of St. Denis and Duncan
- It can be inferred from the passage that Martha Graham had become famous by
 

(A) the beginning of the nineteenth century	(B) the end of the nineteenth century
(C) the early 1920's	(D) the early 1930's
- In lines 12-13, the author uses the phrase "like whales on the beach" to indicate that Fokine and St. Denis were
 

(A) good swimmers	(B) physically large
(C) out of place	(D) very sick
- In lines 13-16, what criticism does the author make of Martha Graham and her colleagues?
  - They patterned much of their choreographic style after vaudeville.
  - They insisted that all dancers learn the same foreign choreographic style.
  - They adopted the same dance values of the previous era without interjecting any new ideas.
  - They prevented modern dance from expanding beyond their personal interpretations.

## Passage 4

The invention of the incandescent light bulb by Thomas A. Edison in 1879 created a demand for a cheap, readily available fuel with which to generate large amounts of electric power. Coal seemed to fit the bill, and it fueled the earliest power stations (which were set up at the end of the nineteenth century by Edison himself). As more power plants were constructed throughout the country, the reliance on coal increased. Since the First World War, coal-fired power plants have accounted for about half of the electricity produced in the United States each year. In 1986 such plants had a combined generating capacity of 289,000 megawatts and consumed 33 percent of the nearly 900 million tons of coal mined in the country that year. Given the uncertainty in the future growth of nuclear power and in the supply of oil and natural gas, coal-fired power plants could well provide up to 70 percent of the electric power in the United States by the end of the century.

Yet, in spite of the fact that coal has long been a source of electricity and may remain one for many years (coal represents about 80 percent of United States fossil-fuel reserves), it has actually never been the most desirable fossil fuel for power plants. Coal contains less energy per unit of weight than natural gas or oil; it is difficult to transport, and it is associated with a host of environmental issues, among them acid rain. Since the late 1960's problems of emission control and waste disposal have sharply reduced the appeal of coal-fired power plants. The cost of ameliorating these environmental problems, along with the rising cost of building a facility as large and complex as a coal-fired power plant, has also made such plants less attractive from a purely economic perspective.

Changes in the technological base of coal fired power plants could restore their attractiveness, however. Whereas some of these changes are evolutionary and are intended mainly to increase the productivity of existing plants, completely new technologies for burning coal cleanly are also being developed.

1. What is the main idea of the passage?
  - (A) Coal-fired plants are an important source of electricity in the United States and are likely to remain so.
  - (B) Generating electricity from coal is comparatively recent in the United States.
  - (C) Coal is a more economical fuel than either oil or nuclear power.
  - (D) Coal is a safer and more dependable fossil fuel than oil or gas.
  
2. Edison's electric light bulb is mentioned in the passage because it
  - (A) replaced gas as a light source
  - (B) increased the need for electrical power
  - (C) was safer than any other method of lighting
  - (D) could work only with electricity generated from coal
  
3. It can be inferred from the passage that coal became the principal source of electricity in the United States, because it
  - (A) required no complicated machinery
  - (B) was comparatively plentiful and inexpensive
  - (C) was easy to transport
  - (D) burned efficiently
  
4. In the author's opinion, the importance of coal-generated electricity could increase in the future for which of the following reasons?
  - (A) The possible substitutes are too dangerous.
  - (B) The cost of changing to other fuels is too great.
  - (C) The future availability of other fuels is uncertain.
  - (D) Other fuels present too many environmental problems.
  
5. Acid rain is mentioned in the passage for which of the following reasons?
  - (A) It reduces the efficiency of coal-fired plants

- (B) It increases the difficulty of transporting coal  
 (C) It is an environmental problem associated with coal use  
 (D) It contains less energy per unit of weight than coal does
6. According to the passage, which of the following is one of the goals of the new technology in coal-fired plants?
- (A) To adapt the plants to other kinds of fuel  
 (B) To reduce the cost of building more plants  
 (C) To lengthen the lives of plants already in use  
 (D) To make the plants already in use more productive
7. Where in the passage is there a reference to the establishment of the first electric power stations?
- (A) Lines 3-4  
 (B) Lines 5-7  
 (C) Lines 9-11  
 (D) Lines 16-18

## Passage 5

The military aspect of the United States Civil War has always attracted the most attention from scholars. The roar of gunfire, the massed movements of uniformed men, the shrill of bugles, and the drama of hand-to-hand combat have fascinated students of warfare for a century. Behind the lines, however life was 1e53 spectacular. It was the story of back-breaking labor to provide the fighting men with food and arms, of nerve-tingling uncertainty about the course of national events, of heartbreak over sons or brothers or husbands lost in battle. If the men on the firing line won the victories the. means to those victories were forged on the home front.

Never in the nation's history had Americans worked harder for victory than in the Civil War. Northerners and Southerners alike threw themselves into the task of supplying their respective armies. Both governments made tremendous demands upon civilians and, in general, received willing cooperation.

By 1863 the Northern war economy was rumbling along in high gear. Everything from steamboats to shovels was needed-and produced. Denied Southern cotton, textile mills turned to wool for blankets and uniforms. Hides by the hundreds of thousands were turned into shoes and harness and saddles; ironworks manufactured locomotives, ordnance, armor plate. Where private enterprise lagged, the government set up its own factories or arsenals. Agriculture boomed, with machinery doing the job of farm workers drawn into the army.

In short, everything that a nation needed to fight a modern war was produced in uncounted numbers. Inevitably there were profiteers with gold-headed canes and flamboyant diamond stickpins, but for every crooked tycoon there were thousands of ordinary citizens living on fixed incomes who did their best to cope with rising prices and still make a contribution to the war effort. Those who could bought war bonds: others knitted, sewed, nursed or lent any other assistance in their power.

1. With what topic is the passage primarily concerned?
- (A) Why the South lost the Civil War  
 (B) The causes of the Civil War  
 (C) Where the Civil War battles were fought  
 (D) The civilian response to the Civil
2. According to the passage, during the Civil War the South no longer provided the North with
- (A) cotton  
 (B) wool  
 (C) hides  
 (D) shoes

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3. In line 15, the word "Hides" is closest in meaning to which of the following?  
(A) Animal skins (B) Tree trunks  
(C) Disguises (D) Shelters
4. In line 21, the word "crooked" could best be replaced by which of the following?  
(A) twisted (B) dishonest (C) uneven (D) distorted
5. The author implies that students of the Civil War usually concentrate on the  
(A) home front (B) battlefield  
(C) government (D) economy
6. Where in the passage does the author mention a contribution made by the government to the war economy?  
(A) Line 4 (B) Lines 11-12  
(C) Line 17 (D) Lines 19-20

# PRACTICE TEST 53

## October 1992

### Passage 1

### Passage 2

Although great natural barriers hindered east-west development in Canada, this circumstance was mitigated by the mighty river and lake systems that provided avenues for the fur trader, missionary, soldier, and settler. Canada's rivers and lakes allowed and, indeed, invited venturesome pioneers to explore the interior of the continent and in spite of natural barriers, to tap its great wealth. The rivers and lakes were essential to the great fur empire; people in canoes brought furs from the farthest extremity of the Canadian Shield to Montreal for exportation to Europe. The first settlements spread along the rivers, since only the rivers provided transportation and communication. Militarily, rivers and lakes were of prime importance; whoever controlled the St. Lawrence and its entrance also controlled Canada.

1. What is the main subject of the passage?  
(A) The barriers to east-west communication in Canada  
(B) The role of rivers and lakes in Canadian development'  
(C) The adventures of Canadian settlers  
(D) The development of the Canadian fur empire
2. Which would be an example of the type of barrier the author refers to in line 1 ?  
(A) A military fort  
(B) An ancient feud  
(C) A political border  
(D) A mountain range
3. According to the passage, rivers and lakes were important in the fur trade as  
(A) habitats for fur-bearing animals  
(B) sources of water  
(C) transportation routes  
(D) natural fortifications
4. In line 6, the word "extremity" means  
(A) a limb of the body  
(B) a severe measure  
(C) the greatest degree  
(D) the most distant part
5. According to the passage, what pattern of expansion did the first settlements follow?  
(A) They moved directly from east to west.  
(B) They advanced along the Canadian Shield.  
(C) They followed the course of the rivers.  
(D) They spread around the perimeter of lakes.
6. The author uses the example of the St. Lawrence mainly to illustrate the role of rivers and lakes in  
(A) urban settlement  
(B) economic development  
(C) agricultural research  
(D) military control
7. In the passage. the author pays LEAST attention to the work of  
(A) traders  
(B) missionaries  
(C) soldiers  
(D) settlers

Passage 3

Stars have been significant features in the design of many United States coins and their number has varied from one to forty-eight stars. Most of the coins issued from about 1799 to the early years of the twentieth century bore thirteen stars representing the thirteen original colonies.

Curiously enough, the first American silver coins, issued in, 1794, had fifteen stars because by that time Vermont and Kentucky had joined the Union. At that time it was apparently the intention of mint officials to add a star for each new state. Following the admission of Tennessee in 1796, for example, some varieties of half dimes, dimes, and half-dollars were produced with sixteen stars.

As more states were admitted to the Union, however, it quickly became apparent that this scheme would not prove practical and the coins from 1798 on were issued with only thirteen stars—one for each of the original colonies. Due to an error at the mint, one variety of the 1828 half cent was issued with only twelve stars. There is also a variety of the large cent with only 12 stars, but this is the result of a die break and is not a true error.

1. What is the main topic of the passage?  
(A) The teaching of astronomy in state universities  
(B) Stars on American coins  
(C) Colonial stamps and coins  
(D) The star as national symbol of the United States
2. The word "their" in line 1 refers to  
(A) stars                      (B) features                      (C) coins                      (D) colonies
3. The word "bore" in line 3 is closest in meaning to which of the following?  
(A) Carried                      (B) Drilled                      (C) Cost                      (D) Symbolized
4. The expression "Curiously enough" is used in line 5 because the author finds it strange that  
(A) silver coins with fifteen stars appeared before coins with thirteen  
(B) Vermont and Kentucky joined the Union in 1794  
(C) no silver coins were issue until 1794  
(D) Tennessee was the first state to use half dimes
5. Which of the following can be inferred about the order in which Kentucky, Tennessee, and Vermont joined the Union?  
(A) Vermont and Kentucky joined at the same time.  
(A) Kentucky joined before Tennessee and Vermont.  
(C) Tennessee joined after Vermont and Kentucky.  
(D) Vermont joined after Tennessee and Kentucky.
6. Which of the following is NOT mentioned as the denomination of an American coin?  
(A) Half cent                      (B) Half nickel                      (C) Half dime                      (D) Half- dollar
7. Why was a coin produced in 1828 with only twelve stars?  
(A) There were twelve states at the time.                      (B) There was a change in design policy.  
(C) Tennessee had left the Union.                      (D) The mint made a mistake.

## Passage 5

In spite of the wealth of examples of urban architecture in older cities, both in Europe and in the United States solutions to current problems of the physical decay of cities in the United States have come slowly. The first reaction after the war was to bulldoze and build bright new towers and efficient roadways, but these solutions did not respond to people. By the close of the 1960's it became more common to deal gently with the 'existing' urban fabric and to insert new buildings in such a way as to complement the physical and social environment; in other cases valued buildings have been rehabilitated and returned to economic productivity. A particularly striking example is the rehabilitation of Ghirardelli Square, San Francisco. This, hillside mélange of nineteenth-century commercial buildings clustered around a chocolate plant, was purchased in 1962 by William Roth to forestall wholesale development of the waterfront as a district of high-rent apartment towers. Nearly all of the nineteenth-century buildings were retained and refurbished, and a low arcade was added on the waterside. There are several levels, dotted with kiosks and fountains, which offer varied prospects of San Francisco Bay. Perhaps most telling is the preservation of the huge Ghirardelli sign as an important landmark; it is such improbable, irrational, and cherished idiosyncrasies which give cities identity and character.

1. The author's main purpose in the passage is to describe
  - (A) the differences between urban architecture in Europe and in the United States
  - (B) the most striking features of San Francisco's scenic waterfront district
  - (C) nineteenth-century buildings in twentieth-century cities
  - (D) characteristics of recent solutions to urban architectural problems in the United States
  
2. According to the passage, after the war many of the attempts of urban architects failed because
  - (A) buildings were not built quickly enough
  - (B) new roads required too much space
  - (C) the needs of the urban residents were overlooked
  - (D) the towering buildings were too tall
  
3. The author discusses Ghirardelli Square in order to illustrate which of the following procedures?
  - (A) The construction of new buildings to conceal older structures
  - (B) The selective removal of old buildings to create space for residential units
  - (C) The 'restoration of old buildings to make them commercially useful
  - (D) The demolition of apartment towers to make way for more attractive construction
  
4. According to the passage, the Ghirardelli sign was preserved because it
  - (A) was designed and built by a famous artist
  - (B) is included in an advertising contract with the Ghirardelli Chocolate Company
  - (C) is suitable as a vantage point from which to view San Francisco Bay
  - (D) has long-standing importance as a 'symbol in the community
  
5. The sentence in lines 14-16 would best keep its meaning if "most telling" were replaced by
 

(A) most significant	(B) in greatest demand'
(C) most debatable	(D) the best publicized



# PRACTICE TEST 54

## January 1991

### Passage 1

By the late nineteenth century, the focus for the engineers and builders of tunnels was beginning to shift from Europe to the United States and especially New York, where the rivers encircling Manhattan captured the imagination of tunnelers and challenged their ingenuity. The first to accept the challenge was a somewhat mysterious Californian named DeWitt Clinton Haskin, who turned up in New York in the 1870's with a proposal to tunnel through the silt under the Hudson River between Manhattan and Jersey City.

Haskin eventually abandoned the risky project. But a company organized by William McAdoo resumed the attack in 1902, working from both directions. McAdoo's men were forced to blast when they ran into an unexpected ledge of rock, but with this obstacle surmounted, the two headings met in 1904 and McAdoo donned oilskins to become the Hudson's first underwater bank-to-bank pedestrian. *World's Work* magazine proudly reported in 1906 that New York could now be described as a body of land surrounded by tunnels. Three one-way shafts beneath the Hudson and two under the Harlem River were already holed through; three more Hudson tubes were being built. Eight separate tunnels were under construction beneath the East River.

1. According to the passage, DeWitt Clinton Haskin came from  
(A) Jersey City                      (B) Europe                      (C) California                      (D) New York
2. What does the author imply about DeWitt Clinton Haskin's background?  
(A) It did not qualify him to handle explosives.  
(B) It was not something people knew much about.  
(C) It included diverse work experiences.  
(D) It included many inferior projects.
3. According to the passage, when did William McAdoo begin to work on the Hudson River tunnel?  
(A) 1870                      (B) 1902                      (C) 1904                      (D) 1906
4. According to the passage, the workers tunneling for William McAdoo were surprised to find which of the following where they were working?  
(A) Oil                      (B) Silt                      (C) Rock                      (D) Shafts
5. The quotation from *World's Work* magazine in line 12 introduces facts about  
(A) cities that were building new tunnels to Manhattan  
(B) people's concern over the weakening of the city's foundation  
(C) the role of New York City in promoting engineering  
(D) the number of tunnels being built at the time
6. Where in the passage does the author refer to the first person to walk beneath the Hudson River?  
(A) Lines 1 – 3                      (B) Lines 4 – 6  
(C) Lines 8 – 11                      (D) Lines 14 – 15

### Passage 2

Icebergs are among nature's most spectacular creations, and yet most people have never seen one. A vague air of mystery envelops them. They come into being somewhere-in faraway, frigid waters, amid thunderous noise and splashing turbulence, which in most cases no one hears or sees. They exist only a short time and then slowly waste away just a unnoticed.

Objects of sheerest beauty, they have been called. Appearing in an endless variety of shapes they may be dazzlingly white, or they may be glassy blue, green, or purple, tinted faintly or in darker hues. They are graceful, stately, inspiring-in calm, sunlit seas.

But they are also called frightening and dangerous, and that they are-in the night, in the fog, and in storms. Even in clear weather one is wise to stay a safe distance away from them. Most of their bulk is hidden below the water, so their underwater parts may extend out far beyond the visible top. Also, they may roll over unexpectedly, churning the waters around them.

Icebergs are parts of glaciers that break off, drift into the water, float about awhile, and finally melt. Icebergs afloat today are made of snowflakes that have fallen over long ages of time. They embody snows that drifted down hundreds, or many thousands, or in some cases maybe a million years ago. The snows fell in polar regions and on cold mountains, where they melted only a little or not at all, and so collected to great depths over the years and centuries.

As each year's snow accumulation lay on the surface, evaporation and melting caused the snowflakes slowly to lose their feathery points and become tiny grains of ice. When new snow fell on top of the old, it too turned to icy grains. So blankets of snow and ice grains mounted layer upon layer and were of such great thickness that the weight of the upper layers compressed the lower ones. With time and pressure from above, the many small ice grains joined and changed to larger crystals, and eventually the deeper crystals merged into a solid mass of ice.

1. Which of the following is the best title for the passage?
 

(A) The Melting of Icebergs	(B) The Nature and Origin of Icebergs
(C) The Size and Shape of Icebergs	(D) The Dangers of Icebergs
  
2. The author states that icebergs are rarely seen because they are
 

(A) surrounded by fog	(B) hidden beneath the mountains
(C) located in remote regions of the world	(D) broken by waves soon after they are formed
  
3. The passage mentions all of the following colors for icebergs EXCEPT
 

(A) yellow	(B) blue	(C) green	(D) purple
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4. According to the passage, icebergs are dangerous because they
 

(A) usually melt quickly	(B) can turn over very suddenly
(C) may create immense snowdrifts	(D) can cause unexpected avalanches
  
5. According to the passage, icebergs originate from a buildup of
 

(A) turbulent water	(B) feathers
(C) underwater pressure	(D) snowflakes
  
6. The formation of an iceberg is most clearly analogous to which of the following activities?
 

(A) Walking on fluffy new snow, causing it to become more compact and icy	(B) Plowing large areas of earth, leaving the land flat and barren
(C) Skating across a frozen lake and leaving a trail behind	(D) Blowing snow into one large pile to clear an area
  
7. In line 23, the expression "from above" refers to

- (A) sunlit seas  
(C) weight of mountains
- (B) polar regions  
(D) layers of ice and snow

8. The attitude of the author toward icebergs is one of  
(A) disappointment      (B) humor      (C) disinterest      (D) wonder

### Passage 3

Born in 1830 in rural Amherst, Massachusetts, Emily Dickinson spent her entire life in the household of her parents. Between 1858 and 1862, it was later discovered, she wrote like a person possessed, often producing a poem a day. It was also during this period that her life was transformed into the myth of Amherst.

Withdrawing more and more, keeping to her room sometimes even refusing to see visitors who called, she began to dress only in white—a habit that added to her reputation as an eccentric.

In their determination to read Dickinson's life in terms of a traditional romantic plot biographers have missed the unique pattern of her life—her struggle to create a female life not yet imagined by the culture in which she lived. Dickinson was not the innocent, lovelorn and emotionally fragile girl sentimentalized by the Dickinson myth and popularized by William Luce's 1976 play, *The Belle of Amherst*. Her decision to shut the door on Amherst society in the 1950's transformed her house into a kind of magical realm in which she was free to engage her poetic genius. Her seclusion was not the result of a failed love affair but rather a part of a more general pattern of renunciation through which she, in her quest for self – sovereignty, carried on an argument with the Puritan fathers, attacking with wit and irony their cheerless Calvinist doctrine, their stern patriarchal God, and their rigid notions of "true womanhood."

1. What is the author's main purpose in the passage?  
(A) To interpret Emily Dickinson's eccentric behavior  
(B) To promote the popular myth of Emily Dickinson  
(C) To discuss Emily Dickinson's failed love affair  
(D) To describe the religious climate in Emily Dickinson's time
2. According to the passage, the period from 1858 to 1862 was for Emily Dickinson a period of great  
(A) tragedy      (B) sociability  
(C) productivity      (D) frivolity
3. Which of the following is NOT mentioned as being one of Emily Dickinson's eccentricities?  
(A) Refusing to eat      (B) Wearing only white  
(C) Avoiding visitors      (D) Staying in her room
4. According to the passage, biographers of Emily Dickinson have traditionally  
(A) criticized most of her poems      (B) ignored her innocence and emotional fragility  
(C) seen her life in romantic terms      (D) blamed her parents for restricting her activities
5. Why does the author mention William Luce's play *The Belle of Amherst*?  
(A) To give an example of the sentimentalized Emily Dickinson myth  
(B) To show how popular Emily Dickinson's poems have become  
(C) To show that Emily Dickinson was also an actress  
(D) To illustrate the theatrical quality of Emily Dickinson's poems
6. The author implies that many people attribute Emily Dickinson's seclusion to

- (A) physical illness  
(C) religious fervor
- (B) a failed love affair  
(D) her dislike of people

7. The author suggests all of the following as reasons for Emily Dickinson's unusual behavior EXCEPT the
- (A) struggle to create a new female identity  
(B) desire to develop her genius undisturbed  
(C) search for her own independence  
(D) attempt to draw attention to her poetry
8. It can be inferred from the passage that Emily Dickinson lived in a society that was characterized by
- (A) strong Puritan beliefs  
(B) equality of men and women  
(C) the encouragement of nonconformity  
(D) the appreciation of poetic creativity

### Passage 4

Native Americans from the southeastern part of what is now the United States believed that the universe in which they lived was made up of three separate, but related, worlds, the Upper World, the Lower World, and This World. In the last there lived humans, most animals, and all plants.

This World, a round island resting on the surface of waters, was suspended from the sky by four cords attached to the island at the four cardinal 'points of the compass. Lines drawn to connect the opposite points of the compass, from north to south and from east to west, intersected This World to divide it into four wedge - shaped segments. Thus a' symbolic representation of the human world was a cross within a circle, the cross representing the intersecting lines and the circle the shape of This World.

Each segment of This World was identified by its own color. According to Cherokee doctrine,' east was associated with the color red because it was the direction of the Sun, the greatest deity of all. Red was also the color of fire, believed to be directly connected with the Sun, with blood, and therefore' with life. Finally, red was the color of success. The west was the Moon segment; it provided no warmth and was not life - giving as the Sun was. So its color was black. North was the direction of cold, and so its color was blue (sometimes purple), and it represented trouble and defeat. South was the direction of warmth, its color, white, was associated with peace and happiness.

The southeastern Native Americans' universe was one in which opposites were constantly at war with each other, red against black, blue against white. This World hovered somewhere between the perfect order and predictability of the Upper World and the total disorder and instability of the Lower World. The goal was to find some kind of halfway path, or balance, between those other worlds.

1. Which of the following is the best title for the passage?
- (A) One Civilization's View of the Universe  
(B) The Changing of the Seasons in the Southeast  
(C) The Painting of Territorial Maps by Southeastern Native Americans  
(D) The War Between Two Native American Civilizations
2. In line 3, the phrase "the last" refers to
- (A) all plants                      (B) This World                      (C) the universe                      (D) the Upper World
3. The author implies that This World was located

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- (A) inside the Upper World
- (C) above the Upper World

- (B) inside the Lower World
- (D) between the Upper World and Lower World

4. According to the passage, southeastern Native Americans compared This World to  
(A) waters                      (B) the sky                      (C) an animal                      (D) an island
5. According to the passage, lines divided This World into how many segments?  
(A) Two                      (B) Three                      (C) Four                      (D) Five
6. According to the passage, southeastern Native Americans associated red with all of the following EXCEPT  
(A) fire                      (B) trouble                      (C) blood                      (D) success
7. According to the passage, which of the following colors represented the west for southeastern Native Americans?  
(A) Blue                      (B) White                      (C) Black                      (D) Purple
8. The shape of This World is closest to that of which of the following?  
(A) A circle                      (B) A triangle                      (C) A square                      (D) A cube

# PRACTICE TEST 55

## May 1991

### Passage 1

Forces other than damaging winds are also at work inside tornadoes. Sometimes, as the writhing, twisting funnel passes over a house, the walls and ceiling burst apart as if a bomb had gone off inside. This explosion is caused by the low air pressure at the center of a tornado.

The pressure at the center of a tornado is usually 13 pounds per square inch. However, inside the house the air pressure is normal, about 15 pounds per square inch. The difference of 2 pounds per square inch between the inside and outside pressure may not seem like much. But suppose a tornado funnel passes over a small building that measures 20 by 10 by 10 feet. On each square inch of the building, there is 2 pounds of pressure from the inside that is not balanced by air pressure outside the building. On the ceiling, that adds up to an unbalanced pressure of 57, 600 pounds. The pressure on the four walls adds up to 172,800 pounds.

If windows are open in the building, some of the inside air will rush out through them. This will balance the pressure inside and outside the building. But if the windows are shut tightly, the enormous inside pressure may cause the building to burst.

Unfortunately, heavy rain and hail often occur in thunderstorms that later produce tornadoes. So people frequently shut all windows to protect their property. This may cause far worse damage later. For the same reason, tornado cellars must have an air vent. Otherwise, the cellar door might be blown out when a tornado passes over it.

1. Which of the following is the main topic of the passage?  
(A) How tornadoes can be prevented  
(B) When tornadoes usually occur  
(C) Where tornadoes are formed  
(D) Why tornadoes cause so much damage
2. In line 2, the word "funnel" refers to which of the following?  
(A) A bomb  
(B) A house  
(C) A tornado  
(D) An explosion
3. According to the passage, tornadoes can destroy buildings because the  
(A) force of a tornado increases the air pressure in a building  
(B) air pressure at the center of a tornado is over 172,000 pounds  
(C) weight of a tornado can crush a building's roof when it passes overhead  
(D) air pressure inside a tornado is less than the air pressure inside a building
4. According to the passage, what is the difference per square inch between the air pressure inside a building and the air pressure inside a tornado?  
(A) 2 pounds  
(B) 10 pounds  
(C) 13 pounds  
(D) 15 pounds
5. According to the passage, the pressure on a building during a tornado can be relieved by  
(A) closing the cellar  
(B) opening the windows  
(C) using a fan for ventilation  
(D) strengthening the roof and walls
6. According to the passage, people close their windows to prevent damage caused by  
(A) tornadoes  
(B) thunderstorms  
(C) uprooted trees  
(D) bursting structures
7. In line 17, the word "it" refers to  
(A) wind  
(B) hail  
(C) cellar door  
(D) air vent

### Passage 2

Grandma Moses is among the most celebrated twentieth - century painters of the United States, yet she had barely started painting before she was in her late seventies. As she once said of herself: "I would never sit back in a rocking chair, waiting for someone to help me.' No one could have had a more productive old age.

She was born Anna Mary Robertson on a farm in New York State, one of five boys and five girls. ("we came in bunches, like radishes.") At twelve she left home and was in domestic service until at twenty-seven, she married Thomas Moses, the hired hand of one of her employers. They farmed most of their lives, first in Virginia and then in New York State, at Eagle Bridge. She had ten children, of whom five survived: her husband died in 1927.

Grandma Moses painted a little as a child and made embroidery pictures as a hobby, but only switched to oils in old age because her hands had become too stiff to sew and she wanted to keep busy and pass the time. Her pictures were first sold at the local drugstore and at a fair, and were soon spotted by a dealer who bought everything she painted. Three of the pictures were exhibited in the Museum of Modern Art, and in 1940 she had her first exhibition in New York. Between the 1930s and her death she produced some 2,000 pictures: detailed and lively portrayals of the rural life she had known for so long, with a marvelous sense of color and form. "I think real hard till think of something real pretty, and then I paint it," she said.

1. Which of the following would be the best title for the passage.  
(A) Grandma Moses: A Biographical Sketch  
(B) The Children of Grandma Moses  
(C) Grandma Moses: Her Best Exhibition  
(D) Grandma Moses and Other Older Artists
2. According to the passage, Grandma Moses began to paint because she wanted to  
(A) decorate her home  
(B) keep active  
(C) improve her salary  
(D) gain an international reputation
3. From Grandma Moses' description of herself in the first paragraph, it can be inferred that she was  
(A) independent  
(B) pretty  
(C) wealthy  
(D) timid
4. Grandma Moses spent most of her life  
(A) nursing  
(B) painting  
(C) embroidering  
(D) farming
5. In line 13, the word "spotted" could best be replaced by  
(A) speckled  
(B) featured  
(C) noticed  
(D) damaged

### Passage 3

There were two widely divergent influences on the early development of statistical methods. Statistics had a mother who was dedicated to keeping orderly records of governmental units (state and statistics come from the same Latin root. *status*) and a gentlemanly gambling father who relied on mathematics to increase his skill at playing the odds in games of chance. The influence of the mother on the offspring, statistics, is represented by counting, measuring, describing, tabulating, ordering, and the taking of censuses-all of which led to modern descriptive statistics. From the influence of the father came modern inferential statistics, which is based squarely on theories of probability.

Descriptive statistics involves tabulating, depicting, and describing collections of data. These data may be either quantitative, such as measures of height, intelligence, or grade level-159 variables that are characterized by an underlying continuum-or the data may represent

qualitative variables, such as sex, college major, or personality type. Large masses of data must generally undergo a process of summarization or reduction before they are comprehensible. Descriptive statistics is a tool for describing or summarizing or reducing to comprehensible form the properties of an otherwise unwieldy mass of data.

Inferential statistics is a formalized body of methods for solving another class of problems that present great difficulties for the unaided human mind. This general class of problems characteristically involves attempts to make predictions using a sample of observations. For example a school superintendent wishes to determine the proportion of children in a large school system who come to school without breakfast have been vaccinated for flu. or whatever. Having a little knowledge of statistics, the superintendent would know that it is unnecessary and inefficient to question each child; the proportion for the entire district could be estimated fairly accurately from a sample of as few as 100 children. Thus, the purpose of inferential statistics is to predict or estimate characteristics of a population from a knowledge of the characteristics of only a sample of the population.

1. With what is the passage mainly concerned?
  - (A) The drawbacks of descriptive and inferential statistics
  - (B) Applications of inferential statistics
  - (C) The development and use of statistics
  - (D) How to use descriptive statistics
2. According to the first paragraph, counting and describing are associated with
  - (A) inferential statistics
  - (B) descriptive statistics
  - (C) unknown variables
  - (D) quantitative changes
3. Why does the author mention the "mother" and "father" in the first paragraph?
  - (A) To point out that parents can teach their children statistics
  - (B) To introduce inferential statistics
  - (C) To explain that there are different kinds of variables
  - (D) To present the background of statistics in a humorous and understandable way
4. The word "squarely" in line 8 could best be replaced by which of the following?
  - (A) solidly
  - (B) geometrically
  - (C) rectangularly
  - (D) haphazardly
5. Which of the following is NOT given as an example of a qualitative variable?
  - (A) Gender
  - (B) Height
  - (C) College major
  - (D) Type personality
6. Which of the following statements about descriptive statistics is best supported by the passage?
  - (A) It simplifies unwieldy masses of data.
  - (B) It leads to increased variability
  - (C) It solves all numerical problems.
  - (D) It changes qualitative variables to quantitative variables.
7. According to the passage, what is the purpose of examining a sample of a population.?
  - (A) To compare different groups
  - (B) To predict characteristics of the entire population
  - (C) To consider all the quantitative variables
  - (D) To tabulate collections of data

## Passage 4



The beaver is North America's largest rodent. As such, it is a close relative of two creatures that are not held in particularly high regard by most connoisseurs of wildlife, the porcupine and the rat. Even so, the beaver has several qualities that endear it to people: it is monogamous and lives in a family unit; it is gentle and clean; it is absolutely industrious.

The beaver's legendary capacity for hard work has produced some astonishing results. In British Columbia, for example, one ambitious creature felled a cottonwood tree that was 11.1 feet tall and more than five feet thick. In New Hampshire, beavers constructed a darn that was three fourths of a mile long and the body of water it created contained no fewer than 40 lodges. In Colorado, beavers were responsible for the appearance of a canal that was a yard deep and ran for 7511 feet. Each adult beaver in Massachusetts, according to one researcher's calculations, cuts down more than a ton of wood every year.

Beavers appear to lead exemplary lives. But the beaver's penchant for building dams, lodges, and canals has got it into a lot of hot water lately. People who fish in the Midwest and New England are complaining about beaver dams that spoil streams for trout and, in the Southeast, loggers object whenever the animals flood out valuable stands of commercial timber. But some beaver experts champion a more charitable view. Historically, they say, this creature's impact on the environment has been tremendously significant, and its potential as a practical conservation resource is receiving more and more attention.

1. What does the passage mainly discuss?
  - (A) Characteristics and habits of the beaver
  - (B) Forest animals as conservation resources
  - (C) Rodents of North America
  - (D) The beaver's role in building canals
  
2. In the first paragraph, the author implies that the porcupine and the rat are
  - (A) gentle and clean
  - (B) not found in North America
  - (C) disliked by connoisseurs of wildlife
  - (D) monogamous and live in a family unit .
  
3. According to the passage, a beaver in British Columbia was responsible for
  - (A) cutting down a ton of wood
  - (B) constructing a 750- foot canal
  - (C) building a dam almost a mile long
  - (D) felling a 110- foot cottonwood tree
  
4. In line 9, to what does the word "it" refer?
  - (A) A dam
  - (B) New Hampshire
  - (C) A cottonwood tree
  - (D) Colorado
  
5. According to the passage, beavers have been the subject of complaints because they
  - (A) contribute to soil erosion by cutting down so many trees
  - (B) build dams that ruin popular fishing areas
  - (C) attack people who trespass on beaver territory
  - (D) destroy log cabins by gnawing on the wood
  
6. The paragraph following the passage most probably discusses
  - (A) examples of destructive forest-dwelling rodents
  - (B) favorite trout streams in New England
  - (C) reasons for the beaver's popularity among loggers
  - (D) ways in which the beaver acts as a conservation resource

To produce the upheaval in the United States that changed and modernized the domain of higher education from the mid 1860's to the mid-1880's, three primary causes interacted. The emergence of a half dozen leaders in education provided the personal force that was needed. Moreover, an outcry for a fresher, more practical, and more advanced kind of instruction arose among the alumni and friends of nearly all of the old colleges and grew into a movement that overrode all conservative opposition. The aggressive Young Yale movement appeared, demanding partial alumni control, a more liberal spirit, and a broader course of study. The graduates of Harvard College simultaneously rallied to relieve the college's poverty and demand new enterprise. Education was pushing toward higher standards in the East by throwing off church leadership everywhere, and in the West by finding a wider range of studies and a new sense of public duty.

The old-style classical education received its most crushing blow in the citadel of Harvard College, where Dr. Charles Eliot, a young captain of thirty - five, son of a former treasurer of Harvard, led the progressive forces. Five revolutionary advances were made during the first years of Dr. Eliot's administration. They were the elevation and amplification of entrance requirements, the enlargement of the curriculum and the development of the elective system, the recognition of graduate study in the liberal arts, the raising of professional training in law, medicine, and engineering to a postgraduate level, and the fostering of greater maturity in student life. Standards of admission were sharply advanced in 1872-1873 and 1876-1877. By the appointment of a dean to take charge of student affairs, and a wise handling of discipline, the undergraduates were led to regard themselves more as young gentlemen and less as young animals. One new course of study after another was opened up—science, music, the history of the fine arts, advanced Spanish, political economy, physics, classical philology, and international law.

1. Which of the following is the author's main purpose in the passage?
  - (A) To explain the history of Harvard College
  - (B) To criticize the conditions of United States universities in the nineteenth century
  - (C) To describe innovations in United States higher education in the latter 1800's
  - (D) To compare Harvard with Yale before the turn of the century
  
2. According to the passage, the changes in higher education during the latter 1800' s were the result of
  - (A) plans developed by conservatives and church leaders.
  - (B) efforts of interested individuals to redefine the educational system
  - (C) the demands of social organizations seeking financial relief
  - (D) rallies held by westerners wanting to compete with eastern schools
  
3. According to the passage, Harvard College was in need of more
 

(A) students	(B) money	(C) land	(D) clergy
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4. According to the passage, which of the following can be inferred about Harvard College before progressive changes occurred?
 

(A) Admission standards were lower.	(B) Students were younger.
(C) Classes ended earlier.	(D) Courses were more practical.
  
5. From the passage it can be concluded that which of the following was a characteristic of the classical course of study?
  - (A) Most students majored in education
  - (B) Students were limited in their choice of courses
  - (C) Students had to pass five levels of study
  - (D) Courses were so difficult that most students failed

# PRACTICE TEST 56

## August 1991

### Passage 1

British Columbia is the third largest Canadian province both in area and population. It is nearly three times as large as Texas, and extends 800 miles (1,280 km) north from the United States border. It includes Canada's entire west coast and the islands just off the coast.

Most of British Columbia is mountainous, with long, rugged ranges running north and south. Even the coastal islands are the remains of a mountain range that existed thousands of years ago. During the last Ice Age this range was scoured by glaciers until most of it was beneath the sea. Its peaks now show as islands scattered along the coast.

The southwestern coastal region has a humid mild marine climate. Sea winds that blow inland from the west are warmed by a current of warm water that flows through the Pacific Ocean. As a result winter temperatures average above freezing and summers are mild. These warm western winds also carry moisture from the ocean. Inland from the coast, the winds from the Pacific meet the mountain barriers of the coastal ranges and the Rocky Mountains. As they rise to cross the mountains, the winds are cooled, and their moisture begins to fall as rain. On some of the western slopes almost 201 inches (500 cm) of rain fall each year.

More than half of British Columbia is heavily forested. On mountain slopes that receive plentiful rainfall, huge Douglas firs rise in towering columns. These forest giants often grow to be as much as 300 feet (90 m) tall, with diameters up to 10 feet (3 m). More lumber is produced from these trees than from any other kind of tree in North America. Hemlock, red cedar, and balsam fir are among the other trees found in British Columbia.

1. In which part of British Columbia can a mild tree be found in British Columbia?  
(A) In the southwest (B) Inland from the coast  
(C) In the north (D) On the entire west coast
2. In line 16, the word "heavily" could best be replaced by which of the following?  
(A) weightily (B) densely (C) sluggishly (D) seriously
3. Which of the following is NOT mentioned as a climate to be found?  
(A) Hemlock (B) Cedar (C) Fir (D) Pine
4. Where in the passage does the author mention the effect the mountains have on winds?  
(A) Lines 4 – 5 (B) Lines 8 – 10  
(C) Lines 13– 14 (D) Lines 16 – 17

### Passage 2

Though they were not trained naturalists, Meriwether Lewis and William Clark in their explorations of North America in the early nineteenth century came across enough unfamiliar birds, mammals, and reptiles to fill a zoo. In keeping with President Jefferson's orders they took careful note of 122 species and subspecies that were unknown to science and in many cases native only to the West. Clark made sketches of any particularly intriguing creature. He and Lewis also collected animal hides and horns and bird skins with such care that a few of them were still intact nearly two centuries later. While Lewis and Clark failed to meet the mythological monsters reputed to dwell in the West, they did unearth the bones of a 45-foot dinosaur. Furthermore, some of the living beasts they did come upon, such as the woolly mountain goat and the grizzly bear, were every bit as odd or as fearsome as any myth. In their collector's enthusiasm, they even floated a prairie dog out of its burrow by pouring in five barrelsful of water, then shipped the frisky animal to Jefferson alive and yelping.

- What does the passage mainly discuss?
  - President Jefferson's pets
  - Collector's techniques for capturing wildlife
  - Discovery of animal species by Lewis and Clark
  - Jobs for trained naturalists
- "In keeping with" in line 3 could best be replaced by which of the following?
  - Following
  - Managing
  - Retaining
  - Delaying
- It can be inferred from the passage that President Jefferson ordered Lewis and Clark to
  - bring back animals for a zoo
  - train to be naturalists
  - compile sketches for a book
  - record newly discovered species of animals
- In line 8, what does the word "they" refer to?
  - Lewis and Clark
  - Dinosaur bones
  - Mythological monsters
  - Western dwellers
- The author compares which of the following animals to mythological monsters?
  - The grizzly bear
  - The prairie dog
  - A tropical bird
  - A poisonous reptile
- According to the passage, Lewis and Clark poured water into a prairie dog's burrow because they wanted to
  - bathe the animal
  - capture the animal
  - give the animal water
  - teach the animal to float

### Passage 3

What makes it rain? Rain falls from clouds for the same reason anything falls to Earth. The Earth's gravity pulls it. But every cloud is made of water droplets or ice crystals. Why doesn't rain or snow fall constantly from all clouds? The droplets or ice crystals in clouds are exceedingly small. The effect of gravity on them is minute. Air currents move and lift droplets so that the net downward displacement is zero, even though the droplets are in constant motion.

Droplets and ice crystals behave somewhat like dust in the air made visible in a shaft of sunlight. To the casual observer, dust seems to act in a totally random fashion, moving about chaotically without fixed direction. But in fact dust particles are much larger than water droplets and they finally fall. The cloud droplet of average size is only 1/2500 inch in diameter. It is so small that it would take sixteen hours to fall half a mile in perfectly still air, and it does not fall out of moving air at all. Only when the droplet grows to a diameter of 1/125 inch or larger can it fall from the cloud. The average raindrop contains a million times as much water as a tiny cloud

droplet. The growth of a cloud droplet to a size large enough to fall out is the cause of rain and other forms of precipitation. This important growth process is called "coalescence."

1. What is the main topic of the passage?  
(A) The mechanics of rain  
(B) The climate of North America  
(C) How gravity affects agriculture  
(D) Types of clouds
2. The word "minute" in line 4 is closest in meaning to which of the following?  
(A) Second  
(B) Tiny  
(C) Slow  
(D) Predictable
3. Why don't all ice crystals in clouds immediately fall to earth?  
(A) They are balanced by the pressure of rain droplets.  
(B) The effect of gravity at high altitude is random.  
(C) They are kept aloft by air currents.  
(D) The heat from the sun's rays melts them.
4. The word "motion" in line 6 is closest in meaning to which of the following?  
(A) Wind  
(B) Descent  
(C) Movement  
(D) Humidity
5. What can be inferred about drops of water larger than 1/125 inch in diameter?  
(A) They never occur.  
(B) They are not affected by the force of gravity.  
(C) In still air they would fall to earth.  
(D) In moving air they fall at a speed of thirty-two miles per hour.
6. In this passage, what does the term "coalescence" refer to?  
(A) The gathering of small clouds to form larger clouds  
(B) The growth of droplets  
(C) The fall of raindrops and other precipitation  
(D) The movement of dust particles in the sunlight
7. What is the diameter of the average cloud droplet?  
(A) 1/16 inch  
(B) 1/125 inch  
(C) 1/2500 inch  
(D) One million of an inch

#### **Passage 4**

In general, the influence of Anglo patrons has been much less pronounced on Hispanic arts than on American Indian arts. The Hispanic crafts revival was confined to a much shorter period of time, beginning in the early 1920's, reaching its peak in the late 1930's, and dying down by the Second World War, less than 20 years. During this period, in spite of the enthusiasm of the wealthy Anglo patrons in northern New Mexico, Hispanic crafts never "caught on" nationally in the way American Indian crafts did. Interest was fairly well limited to the Southwest and Southern California, the areas in which the adobe hacienda revival was taking place. The major interest in Hispanic crafts was as furnishings for these comfortable Southwestern-style adobe homes. These crafts were not, as were American Indian crafts viewed as valuable art objects in themselves purchased with an eye for speculation. Hispanic arts to, a great degree have been ignored by the speculative Anglo art market. A beneficial consequence of this oversight is that the artisans have been freer to work according to their own standards and within their own traditions. Their work has not been "emptied of previous vital meanings" and become a meaningless revival. as has so much ethnic art of this day. Rather it has remained as an object of cultural pride and identity and not simply the product of the tastes and demands of the art market.

1. What does this passage mainly discuss?
  - (A) Differences in the degree to which His-panic and American Indian arts have been influenced by Anglo patrons
  - (B) Marketing strategies for Hispanic artists
  - (C) American Indian influence on Hispanic crafts
  - (D) Negative consequences of the influence American Indian and Hispanic arts have had on Anglo artists
2. According to the passage, during which of the following periods were Hispanic crafts most popular?
  - (A) The early 1920's
  - (B) The late 1930's
  - (C) In the middle of the Second World War
  - (D) At the end of the Second World War
3. In line 6, the author says that Hispanic crafts never "caught on" to indicate that they
  - (A) failed to become fashionable
  - (B) were hard to hang on walls
  - (C) were impossible to understand.
  - (D) seldom stayed glued together
4. In line 15 of the passage, to which of the following does the word "it" refer?
  - (A) The clay
  - (B) Ethnic art
  - (C) Their work
  - (D) A meaningless revival
5. Which of the following places is NOT mentioned in the passage as a place in which Hispanic crafts were popular?
  - (A) Northern New Mexico
  - (B) The Southwest
  - (C) Southern California
  - (D) New England
6. Where in the passage does the author indicate the primary use of the Hispanic crafts purchased prior to the Second World War II
  - (A) Lines 2-4
  - (B) Lines 8-9
  - (C) Lines 11-13
  - (D) Lines 15-16

## Passage 5

Botany, the study of plants, occupies a peculiar position in the history of human knowledge. For many thousands of years it was the one field of awareness about which humans had anything more than the vaguest of insights. It is impossible to know today just what our Stone Age ancestors knew about plants, but from what we can observe of pre-industrial societies that still exist, a detailed learning of plants and their properties must be extremely ancient. This is logical. Plants are the basis of the food pyramid for all living things, even for other plants. They have always been enormously important to the welfare of peoples, not only for food, but also for clothing, weapons, tools, dyes: medicines, shelter, and a great many other purposes. Tribes living today in the jungles of the Amazon recognize literally hundreds of plants and know many properties of each. To them botany, as such, has no name and is probably not even recognized as a special branch of "Knowledge at all.

Unfortunately, the more industrialized we become the farther away we move from direct contact with plants, and the less distinct our knowledge of botany grows. Yet everyone comes unconsciously on an amazing amount of botanical knowledge, and few people will fail to recognize a rose, an apple, or an orchid. When our Neolithic ancestors, living in the Middle East about 10,000 years ago, discovered that certain grasses could be harvested and their seeds planted for richer yields the next season, the first great step in a new association of plants and humans was taken. Grains were discovered and from them flowed the marvel of agriculture: cultivated crops. From then on, humans would increasingly take their living from the controlled production of a few plants, rather than getting a little here and a little there from many varieties

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that grew wild – and the accumulated knowledge' of tens of thousands of years of experience and intimacy with plants in the wild would begin to fade away.

1. Which of the following assumptions about early humans is expressed in the passage?
  - (A) They probably had extensive knowledge of plants.
  - (B) They thought there was no need to cultivate crops.
  - (C) They did not enjoy the study of botany.
  - (D) They placed great importance on the ownership of property.
  
2. What does the comment "This is logical" in line 6 mean?
  - (A) There is no clear way to determine the extent of our ancestor's knowledge of plants.
  - (B) It is not surprising that early humans had a detailed knowledge of plants.
  - (C) It is reasonable to assume that our ancestors behaved very much like people in preindustrial societies.
  - (D) Human knowledge of plants is well organized and very detailed.
  
3. According to the passage, why has general knowledge of botany begun to fade?
  - (A) People no longer value plants as a useful resource.
  - (B) Botany is not recognized as a special branch of science.
  - (C) Research is unable to keep up with the increasing numbers of plants.
  - (D) Direct contact with a variety of plants has decreased.
  
4. In line 16, what is the author's purpose in mentioning "a rose, an apple, or an orchid"?
  - (A) To make the passage more poetic
  - (B) To cite examples of plants that are attractive
  - (C) To give botanical examples that all readers will recognize
  - (D) To illustrate the diversity of botanical life
  
5. According to the passage, what was the first great step toward the practice of agriculture?
  - (A) The invention of agricultural implements and machinery
  - (B) The development of a system of names for plants
  - (C) The discovery of grasses that could be harvested and replanted
  - (D) The changing diets of early humans
  
6. The relationship between botany and agriculture is similar to the relationship between zoology (the study of animals) and
  - (A) deer hunting
  - (B) bird watching
  - (C) sheep raising
  - (D) horseback riding
  
7. In which lines in the passage does the author describe the beneficial properties that plants have for humans?
  - (A) Lines 1-2
  - (B) Lines 7-9
  - (C) Lines 11-12
  - (D) Lines 14-16

# PRACTICE TEST 57

## October 1991

### Passage 1

Having no language, infants cannot be told what they need to learn. Yet by the age of three they will have mastered the basic structure of their native language and will be well on their way to communicative competence. Acquiring their language is a most impressive intellectual feat. Students of how children learn language generally agree that the most remarkable aspect of this feat is the rapid acquisition of grammar. Nevertheless, the ability of children to conform to grammatical rules is only slightly more wonderful than their ability to learn words. It has been reckoned that the average high school graduate in the United States has a reading vocabulary of 80,000 words, which includes idiomatic expressions and proper names of people and places. This vocabulary must have been learned over a period of 16 years. From the figures, it can be calculated that the average child learns at a rate of about 13 new words per day. Clearly a learning process of great complexity goes on at a rapid rate in children.

1. What is the main subject of the passage.  
(A) Language acquisition in children  
(B) Teaching languages to children  
(C) How to memorize words  
(D) Communicating with infants
2. The word "feat" in line 5 is closest in meaning to which of the following?  
(A) Experiment  
(B) Idea  
(C) Activity  
(D) Accomplishment
3. The word "reckoned" in line 7 is closest in meaning to which of the following?  
(A) Suspected  
(B) Estimated  
(C) Proved  
(D) Said
4. In line 8, the word "which" refers to  
(A) their ability  
(B) reading vocabulary  
(C) idiomatic expression  
(D) learning process
5. According to the passage, what is impressive about the way children learn vocabulary.  
(A) They learn words before they learn grammar  
(B) They learn even very long words.  
(C) They learn words very quickly.  
(D) They learn the most words in high school.

### Passage 2

The temperature of the Sun is over 5,000 degrees Fahrenheit at the surface. but it rises to perhaps more than 16 million degrees at the center. The Sun is so much hotter than the Earth that matter can exist only as a gas, except at the core. In the core of the Sun, the pressures are so great against the gases that, despite the high temperature. there may be a small solid core. However, no one really knows, since the center of the Sun can never be directly observed.

Solar astronomers do know that the Sun is divided into five layers or zones. Starting at the outside and going down into the Sun, the zones are the corona, chromosphere, photosphere, convection zone, and finally the core. The first three zones are the regarded as the Sun's atmosphere. But since the Sun has no solid surface, it is hard to tell where the atmosphere ends and the main body of the Sun begins.

The Sun's outermost layer begins about 10,000 miles above the visible surface and can be seen during an eclipse such as the one in February 1979. At any goes outward for millions of



miles. This is the only part of the Sun that other time, the corona can be seen only when special instruments are used on cameras and telescopes to shut out the glare of the Sun's rays.

The corona is a brilliant, pearly white, filmy light about as bright as the full Moon. Its beautiful rays are a sensational sight during an eclipse. The corona's rays flash out in a brilliant fan that has wispy spike-like rays near the Sun's north and south poles. The corona is thickest at the sun's equator.

The corona rays are made up of gases streaming outward at tremendous speeds and reaching a temperature of more than 2 million degrees Fahrenheit. The rays of gas thin out as they reach the space around the planets. By the time the Sun's corona rays reach the Earth, they are weak and invisible.

1. Matter on the Sun can exist only in the form of gas because of the Sun's  
(A) size                      (B) age                      (C) location                      (D) temperature
2. With what topic is the second paragraph mainly concerned?  
(A) How the Sun evolved                      (B) The structure of the Sun  
(C) Why scientists study the Sun                      (D) The distance of the Sun from the planets
3. All of the following are parts of the Sun's atmosphere EXCEPT the  
(A) corona                      (B) chromosphere                      (C) photosphere                      (D) core
4. According to the passage as the corona rays reach the planets, they become  
(A) hotter                      (B) clearer                      (C) thinner                      (D) stronger
5. The paragraphs following the passage most likely discuss which of the following?  
(A) The remaining layers of the Sun                      (B) The evolution of the Sun to its present form  
(C) The eclipse of February 1979                      (D) The scientists who study astronomy
6. Where in the passage does the author compare the light of the Sun's outermost layer to that of another astronomical body?  
(A) Lines 2-3                      (B) Lines 9-10  
(C) Line 16                      (D) Lines 22-23

### **Passage 3**

The agricultural revolution in the nineteenth century involved two things: the invention of labor-saving machinery and the development of scientific agriculture. Labor-saving machinery, naturally appeared, first where labor was scarce. "In Europe," said, Thomas Jefferson, the object is to make the most of their land, labor being abundant; here it, is to make the most of our labor, land being abundant. It was in America, therefore, that the great advances in nineteenth-century agricultural machinery first came.

At the opening of the century, with the exception of a crude plow farmers could have carried practically all of the existing agricultural implement on their backs; by 1860, most of the machinery in use today had been designed in an early form. The most important of the early inventions was the iron plow. As early as 1790 Charles Newbold of New Jersey had been working on the of a cast-iron plow and spent his entire fortune in introducing his invention. The farmers, however, would have none of it, claiming that the iron poisoned the soil and made the weeds grow. Nevertheless, many people devoted their attention to the plow, until in 1869 James Oliver of South Bend, Indiana, turned out the first chilled-steel plow.

1. What is the main topic of the passage?
  - (A) The need for agricultural advances to help feed a growing population
  - (B) The development of safer machines demanded by the labor movement
  - (C) Machinery that contributed to the agricultural revolution
  - (D) New Jersey as a leader in the agricultural revolution
2. The word "naturally" as used in line 3 is closest in meaning to which of the following?
  - (A) Gradually
  - (B) Unsurprisingly
  - (C) Apparently
  - (D) Safely
3. The expression "make the most of" in line 4 is closest in meaning to which of the following?
  - (A) Get the best yield from
  - (B) Raise the price of
  - (C) Exaggerate the worth of
  - (D) Earn a living on
4. Which of the following can be inferred from what Thomas Jefferson said?
  - (A) Europe was changing more quickly than America.
  - (B) Europe had greater need of farm machinery than America did.
  - (C) America was finally running out of good farmland.
  - (D) There was a shortage of workers on American farms.
5. It can be inferred that the word "here" in line 4 refers to
  - (A) Europe
  - (B) America
  - (C) New Jersey
  - (D) Indiana
6. What point is the author making by stating that farmers could carry nearly all their tools on their backs?
  - (A) Farmers had few tools before the agricultural revolution.
  - (B) Americans were traditionally self-reliant.
  - (C) Life on the farm was extremely difficult.
  - (D) New tools were designed to be portable.
7. Why did farmers reject Newbold's plow?
  - (A) Their horses were frightened by it.
  - (B) They preferred lighter tools.
  - (C) It was too expensive.
  - (D) They thought it would ruin the land.

## Passage 4

Telecommuting – substituting the computer for the trip to the job – has been hailed as a solution to all kinds of problems related to office work. For workers it promises freedom from the office, less time wasted in traffic, and help with child-care conflicts. For management, telecommuting helps keep high performers on board, minimizes tardiness and absenteeism by eliminating commutes, allows periods of solitude for high-concentration tasks, and provides scheduling flexibility. In some areas, such as Southern California and Seattle, Washington, local governments are encouraging companies to start telecommuting programs in order to reduce rush-hour congestion and improve air quality. But these benefits do not come easily. Making a telecommuting program work requires careful planning and an understanding of the differences between telecommuting realities and popular images.

Many workers are seduced by rosy illusions of life as a telecommuter. A computer programmer from New York City moves to the tranquil Adirondack Mountains and stays in contact with her office via computer. A manager comes in to his office three days a week and works at home the other two. An accountant stays home to care for child; she hooks up her telephone modem connections and does office work between calls to the doctor.

These are powerful images, but they are a limited reflection of reality. Telecommuting workers soon learn that it is almost impossible to concentrate on work and care for a young

child at the same time. Before a certain age, young children cannot recognize, much less respect, the necessary boundaries between work and family. Additional child support is necessary if the parent is to get any work done.

Management, too, must separate the myth from the reality. Although the media has paid a great deal of attention to telecommuting, in most cases it is the employee's situation, not the availability of technology, that precipitates a telecommuting arrangement.

That is partly why, despite the widespread press coverage, the number of companies with work-at-home programs or policy guidelines remains small.

1. What is the main subject of the passage?
  - (A) Business management policies
  - (B) Driving to work
  - (C) Extending the workplace by means of commuters
  - (D) Commuters for child-care purposes
2. Which of the following is NOT mentioned as a problem for office employees?
  - (A) Being restricted to the office
  - (B) Incurring expenses for lunches and clothing
  - (C) Taking care of sick children
  - (D) Driving in heavy traffic
3. Which of the following is NOT mentioned as a problem for employers that is potentially solved by telecommuting?
  - (A) Employees' lateness for work
  - (B) Employees' absence from work
  - (C) Employees' need for time alone to work intensively
  - (D) Employee's conflicts with second jobs
4. Which of the following does the author mention as a possible disadvantage of telecommuting?
  - (A) Small children cannot understand the boundaries of work and play.
  - (B) Computer technology is not advanced enough to accommodate the needs of every situation.
  - (C) Electrical malfunctions can destroy a project.
  - (D) The worker often does not have all the needed resources at home.
5. Which of the following is an example of telecommuting as described in the passage?
  - (A) A scientist in a laboratory developing plans for a space station
  - (B) A technical writer sending via computer documents created at home
  - (C) A computer technician repairing an office computer network
  - (D) A teacher directing computer-assisted learning in a private school

## **Passage 5**

Camen Lomas Garza's eloquent etchings, lithographs, and gouache paintings depict primal images of the rural environment and communal cultural experience of Mexican descended people in the United States. In an introspective and personal language, she describes the customs, traditions, and way of life of her Texan - Mexican heritage.

By 1972, Lomas Garza had evolved her distinctive *monitos*, paintings of stylized figures in culturally specific social environments. She transposes images and scenes from her past, combining cultural documentation with invention in an interplay of fact and fiction. Through selection, emphasis, and creation, these *monitos* delineate facets of experience, expressing deeper truths.

Oral tradition is a mainstay of Chicano culture. In both urban and rural communities, a rich and varied repertoire of ballads, tales, and poetic forms is preserved in memory-and passed from generation to generation. Lomas Garza's *monitos* function as an oral tradition in visual form. Her unique art of storytelling employs iconographic elements to create a concentrated narration. Visual episodes within an unfolding epic tale of cultural regeneration, the *monitos* keep alive the customs and daily practices that give meaning and coherence to Chicano identity. Their basic aim is to delight and instruct. For those outside Chicano culture, the precise and minutely detailed *monitos* provide a glimpse into the rich and vibrant lifestyle of the largest Spanish speaking cultural group within United States society.

Although her art has an innocent earnestness and folkloric affinity. Lomas Garza's expression is neither naive nor instinctive. The artist is highly trained academically, but has chosen to remain independent of dominant artistic trends in order to work toward a private aesthetic response to social concerns. While her work does not posit an overt political statement. it originates from a desire to respond to the contemporary situation of Mexican Americans by expressing positive images of their culture.

1. What does the passage mainly discuss?
  - (A) Cultural aspects of Carmen Lomas Garza's work
  - (B) Carmen Lomas Garza's artistic training
  - (C) Political aspects of Carmen Lomas Garza's work
  - (D) Critical reviews of Carmen Lomas Garza's work
  
2. What does the passage say about the oral tradition in Chicano culture?
 

(A) It is very important.	(B) It is no longer relevant.
(C) It is being replaced by the written word.	(D) It is primarily rural.
  
3. The writer compares Lomas Garza's visual works to
 

(A) customs	(B) facts and fiction
(C) storytelling	(D) artistic trends
  
4. The author refers to Carmen Lomas Garza's work as all of the following EXCEPT
 

(A) instructive	(B) precise	(C) detailed	(D) naive
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5. The word "Their" in line 16 refers to which of the following?
 

(A) Elements	(B) Monitos	(C) Customs	(D) Practices
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6. Where' in the passage does the author discuss the effect of Garza's work on non-Chicanos?
 

(A) Lines 1-3	(B) Lines 10-12
(C) Lines 16-19	(D) Lines 21-23
  
7. What can be inferred from the passage about Carmen Lomas Garza's art training?
  - (A) She pursued conventional academic art studies.
  - (B) She was self-taught.
  - (C) She learned by copying dominant artistic trends.
  - (D) She learned by copying folk artists.

# PRACTICE TEST 58

## January 1990

### Passage 1

The railroad industry could not have grown as large as it did without steel. The first rails were made of iron. But iron rails were not strong enough to support heavy trains running at high speeds. Railroad executives wanted to replace them with steel rails because steel was ten or fifteen times stronger and lasted twenty times longer. Before the 1870's, however, steel was too expensive to be widely used. It was made by a slow and expensive process of heating. Stirring, and reheating iron ore.

Then the inventor Henry Bessemer discovered that directing a blast of air at melted iron in a furnace would burn out the impurities that made the iron brittle. As the air shot, through the furnace, the bubbling metal would erupt in showers of sparks. When the fire cooled, the metal had been changed, or converted, to steel. The Bessemer converter made possible the mass production of steel. Now three to five tons of iron could be changed into steel in a matter of minutes.

Just when the demand for more and more steel developed, prospectors discovered huge new deposits of iron ore in the Mesabi Range, a 120-mile-long region in Minnesota near Lake Superior. The Mesabi deposits were so near the surface that they could be mined with steam' shovels.

Barges and steamers carried the iron ore through Lake Superior to depots on the southern shores of Lake Michigan and Lake Erie. With dizzying speed Gary, Indiana, and Toledo, Youngstown, and Cleveland, Ohio, became major steel-manufacturing centers. Pittsburgh was the greatest steel city of all.

Steel was the basic building material of the industrial age. Production skyrocketed from seventy-seven thousand tons in 1870 to over eleven million tons in 1900.

1. Which of the following is the best title for the passage  
(A) The Railroad industry (B) Famous Inventors  
(C) Changing Iron into Steel (D) Steel Manufacturing Centers
2. According to the passage, the railroad industry preferred steel to iron because steel was  
(A) cheaper and more plentiful (B) lighter, and easier to mold  
(C) cleaner. And easier to mine (D) stronger and more durable
3. According to the passage, how did the Bessemer method make the mass production of steel possible?  
(A) It directed air at melted iron in a furnace. removing all impurities.  
(B) It slowly heated iron ore.. then stirred it and heated it again.  
(C) It changed iron ore into iron, which was a substitute for steel.  
(D) It could quickly find deposits of iron ore under the ground.
4. The furnace that Bessemer used to process iron into steel was called a  
(A) heater (B) steamer (C) converter (D) shower
5. According to the passage. where were large deposits of iron ore uncovered?  
(A) In Pittsburgh (B) In the Mesabi Range  
(C) Near Lake Michigan (D) Near Lake Erie
6. In line 17 the words 'Barges and steamers' could best be replaced by which of the following?  
(A) Trains (B) Planes (C) Boats (D) Trucks

7. It can be inferred from the passage that the mass production of steel caused
- |  |  |
|--|--|
| (A) a decline in the railroad industry | (B) a revolution in the industrial world     |
| (C) an increase in the price of steel  | (D) a feeling of discontent among steel work |

## Passage 2

The origins of the horse go back to eohippus the "dawn horse" of the Eocene only 10 to 20 inches tall. Like its relatives the ancient tapir and rhinoceros, eohippus had four toes on its front feet, three on the rear, and teeth adapted to a forest diet of soft leaves. Eohippus died out about 5.1 million years ago in both North America and Europe.

Late ancestral horse types moved from their forest niche out onto the grassy plains. Their teeth adapted to accommodate to hard siliceous grass. No longer could these protohorses slip away through thick forest when danger threatened. Escape now demanded speed and endurance. Limbs grew longer. Extra toes became vestiges that were not visible externally.

- The passage mainly discusses the
 

(A) evolution of the horse	(B) size of eohippus
(C) animals of the Eocene	(D) plight of endangered species
- The author states that eohippus was related to the
 

(A) horsefly	(B) tapeworm
(C) hippopotamus	(D) rhinoceros
- What did the eohippus eat?
 

(A) Rhinoceros meat	(B) Soft leaves
(C) Hard siliceous grass	(D) Other horses
- In what way did predators present less of a threat to eohippus than to later proto horses.
 

(A) Eohippus was hidden by the forest.	(B) Eohippus could run farther.
(C) Eohippus was not edible.	(D) Eohippus was larger and stronger
- The paragraph following the passage most probably discusses
 

(A) other changes that the rhinoceros has undergone
(B) more reasons for the extinction of eohippus
(C) further development of early horse types.
(D) the diet of eohippus.

## Passage 3

In terrestrial affairs we think of "big" as being complicated; a city is more intricate than a village, an ocean more complicated than a puddle. For the universe, the reverse seems to be the case: bigger is simpler. Galaxies have some puzzling features, but on the whole, they are scarcely more complicated than the stars that compose them. Beyond the galaxies, in the hierarchy of the cosmos, there are clusters of galaxies; these clusters are loosely bound by the gravity of their largest members and tend to look very much the same in all directions. Simplest of all is the universe at large, it is far less complicated than the Earth, one of its most trivial members. The universe consists of billions of galaxies flying apart as if from an explosion that set it in motion, it is not lopsided, nor does it rotate. The more thoroughly scientists investigate the universe, the more clearly its simplicity shines through.

1. What is the main point made in the passage?  
(A) The Earth is more complicated than the solar system  
(B) The universe is filled with puzzling materials.  
(C) The universe is a relatively simple phenomenon.  
(D) Galaxy clusters are an illusion.
2. According to the passage, clusters of galaxies are  
(A) indiscernible in the cosmos  
(B) held together by gravity  
(C) made up of only one or two galaxies  
(D) created when stars explode
3. According to the passage, which of the following is the most complicated?  
(A) The Earth  
(B) A cluster of galaxies  
(C) The universe  
(D) A galaxy
4. It can be inferred from the passage that future research will support which of the following statements?  
(A) Scientists in the past have been misled by the apparent simplicity of the universe.  
(B) The chaos and confusion of the universe will never be understood  
(C) Findings will confirm the belief that the universe is simple  
(D) Billions of galaxies are predicted to explode, adding to universal complexity.

#### **Passage 4**

Arid regions in the southwestern United States have become increasingly inviting playgrounds for the growing number of recreation seekers who own vehicles such as motorcycles or powered trail bikes and indulge in hill-climbing contests or in carving new trails in the desert. But recent scientific studies show that these off-road vehicles can cause damage to desert landscapes that has long-range effects on the area's water-conserving characteristics and on the entire ecology, both plant and animal. Research by scientists in the western Mojave Desert in California revealed that the compaction of the sandy arid soil resulting from the passage of just one motorcycle markedly reduced the infiltration ability of the soil and created a stream of rain runoff water that eroded the hillside surface. In addition, the researchers discovered that the soil compaction caused by the off-road vehicles often killed native plant species and resulted in the invasion of different plant species within a few years. The native perennial species required many more years before they showed signs of returning. The scientists calculated that roughly a century would be required for the infiltration capacity of the Mojave soil to be restored after being compacted by vehicles.

1. What is the main topic of the passage?  
(A) Problems caused by recreational vehicles  
(B) Types of off-road vehicles  
(C) Plants of the southwestern desert  
(D) The increasing number of recreation seekers
2. According to the passage, what is being damaged?  
(A) Motorcycles  
(B) The desert landscape  
(C) Roads through the desert  
(D) New plant species
3. According to the passage, the damage to plants is  
(A) unnoticeable  
(B) superficial  
(C) long-lasting  
(D) irreparable
4. According to the passage, what happens when the soil is compacted?  
(A) Little water seeps through  
(B) Better roads are made

(C) Water is conserved

(D) Deserts are expanded

5. What is happening to the desert hillsides?

- (A) The topsoil is being eroded
- (B) The surface is being irrigated
- (C) There are fewer types of plants growing on them
- (D) There are fewer streams running through them

6. According to the passage, what is happening to native plants in these areas?

- (A) They are becoming more compact
- (B) They are adapting
- (C) They are invading other areas
- (D) They are dying

7. It can be inferred that which of the following people would probably be most alarmed by the scientists' findings?

- (A) Historians
- (B) Mapmakers
- (C) Farmer
- (D) Ecologists

## Passage 5

Certainly one of the most intelligent and best educated women of her day, Mercy Otis Warren produced a variety of poetry and prose. Her farce *The Group* (1776) was the hit of revolutionary Boston, a collection of two plays and poems appeared in 1790, and her three-volume *History of the Rise, Progress, and Termination of the American Revolution*. Interspersed with *Biographical and Moral Observations* appeared in 1805. She wrote other farces, as well as an anti-Federalist pamphlet *Observations on the New Constitution, and on the Federal and State Conventions* (1788). There is no modern edition of her works, but there are two twentieth-century biographies, one facsimile edition of *The Group*, and a generous discussion of her farces and plays in Arthur Hubson Quinn's *A History of the American Drama From the Beginning to the Civil War*. Of her non-dramatic poetry, critics rarely speak. Mercy Otis was born into a prominent family in Barnstable, Massachusetts. In 1754, she married James Warren, a Harvard friend of James Otis and John Adams, whose son James Warren was to become a member of the Massachusetts legislature just before the war and a financial aide to Washington during the war with the rank of major general. The friendship of the Warrens and Adamses was lifelong and close: Abigail Adams was one of Mercy Warren's few close friends. Following the war, James Warren reentered politics to oppose the Constitution because he feared that it did not adequately provide for protection of individual rights. Mercy Warren joined her husband in political battle, but the passage of the Bill of Rights marked the end of their long period of political agitation.

In whatever literary form Warren wrote, she had but one theme—liberty. In her farces and history, it was national and political freedom. In her poems, it was intellectual freedom. In her anti-Federalist pamphlet, it was individual freedom. Throughout all of these works, moreover, runs the thread of freedom (equal treatment) for women. Not militant, she nevertheless urged men to educate their daughters and to treat their wives as equals.

1. Which of the following is the main topic of the Passage?

- (A) Mercy Otis Warren and other poets of the Revolutionary War period
- (B) The development of Mercy Otis Warren's writing style
- (C) Mercy Otis Warren's contributions to American literature and society
- (D) The friends and acquaintances of Mercy Otis Warren

2. In what year was Warren's pamphlet about the Constitution written?

- (A) 1776
- (B) 1788
- (C) 1790
- (D) 1805



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3. Which of the following is NOT mentioned as a kind of writing done by Warren?  
(A) Farces                      (B) Poetry                      (C) Plays                      (D) Advertisements
4. The author implies that Mercy Otis Warren felt the Constitution would fail to Protect  
(A) literary progress                      (B) political parties  
(C) the American economy                      (D) personal freedom
5. In line 21 the word "but" could best be replaced by which of the following?  
(A) only                      (B) yet                      (C) still                      (D) however
6. According to the passage, the kind of liberty emphasized in Warren's poems was  
(A) national                      (B) intellectual                      (C) political                      (D) religious
7. In lines 24-25, the author refers to Warren as "not militant" to indicate that she  
(A) remained politically aloof  
(B) did not continue agitating for a Bill of rights  
(C) did not campaign aggressively for women's rights  
(D) did not support military conscription

# PRACTICE TEST 59

May 1990

## Passage 1

In the past oysters were raised in much the same way as dirt farmers raised tomatoes – by transplanting them. First, farmers selected the oyster bed, cleared the bottom of old shells and other debris, then scattered clean shells about. Next, they "planted" fertilized oyster eggs, which within two or three weeks hatched into larvae. The larvae drifted until they attached themselves to the clean shells on the bottom. There they remained and in time grew into baby oysters called seed or spat. The spat grew larger by drawing in seawater from which they derived microscopic particles of food. Before long farmers gathered the baby oysters transplanted them in other waters to speed up their growth, then transplanted them once more into another body of water to fatten them up.

Until recently; the supply of wild oysters and those crudely farmed were more than enough to satisfy people's needs. But today the delectable seafood is no longer available in abundance. The problem has become so serious that some oyster beds have vanished entirely. Fortunately, as far back as the early 1900's marine biologists realized that if new measures were not taken, oysters would become extinct or at best a luxury food. So they set up well equipped hatcheries and went to work. But they did not have the proper equipment or the skill to handle the eggs. They did not know when, what, and how to feed the larvae. And they knew little about the predators that attack and eat baby oysters by the millions. They failed, but they doggedly kept at it. Finally, in the 1940's a significant breakthrough was made.

The marine biologists discovered that by raising the temperature of the water, they could induce oysters to spawn not only in the summer but also in the fall, winter, and spring. Later they developed a technique for feeding the larvae and rearing them to spat. Going still further, they succeeded in breeding new strains that were resistant to diseases, grew faster and larger, and flourished in water of different salinities and temperatures. In addition, the cultivated oysters tasted better.

1. Which of the following would be the best title for the passage?  
(A) The Threatened Extinction of Marine Life  
(B) The Cultivation of Oysters  
(C) The Discoveries Made by Marine Biologists  
(D) The Varieties of Wild Oysters
2. In the first paragraph, the production of oysters is compared to what other industry?  
(A) Mining                      B) Fishing                      C) Banking                      D) Farming
3. In the passage, which of the following is NOT mentioned as a stage of an oyster's life?  
(A) Debris                      B) Egg                      C) Larvae                      D) Spat
4. When did scientists discover that oysters were in danger?  
(A) In the early part of the 19th century                      (B) At the beginning of this century  
(C) In the 1940's                      (D) Just recently
5. According to the passage, which of the following words best describes the efforts of the marine biologists working with oysters?  
(A) Persistent                      (B) Intermittent                      (C) Traditional                      (D) Fruitless
6. In the passage, the author mentions that the new strains of oyster are  
(A) cheaper                      (B) shaped differently  
(C) better textured                      (D) healthier

7. In what paragraph does the author describe successful methods for increasing the oyster population?  
(A) First                      (B) Second                      (C) Third                      (D) Fourth
8. Which of the following best describes the organization of the passage?  
(A) Step by step description of the evolution of marine biology  
(B) Discussion of chronological events concerning oyster production  
(C) Random presentation of facts about oysters  
(D) Description of oyster production at different geographic locations

## **Passage 2**

Political controversy about the public-land policy of the United States began with the American Revolution. In fact, even before independence from Britain was won, it became clear that resolving the dilemmas surrounding the public domain prove necessary to preserve the Union itself.

At the peace negotiations with Britain, Americans demanded, and got, a western boundary at the Mississippi River. Thus the new nation secured for its birthright a vast internal empire rich in agricultural and mineral resources. But under their colonial charters, seven states—Massachusetts, Connecticut, New York, Virginia, North Carolina, South Carolina, and Georgia—claimed portions of the western wilderness. Virginia's claim was the largest, stretching north and west to encompass the later states of Kentucky, Ohio, Indiana, Illinois, Michigan, and Wisconsin. The language of the charters was vague and their validity questionable, but during the war Virginia reinforced its title by sponsoring colonel George Rogers Clark's 1778 expedition to Vincennes and Kaskaskia, which strengthened America's trans-Appalachian pretensions at the peace table.

The six states holding no claim to the transmontane region doubted whether a confederacy in which territory was so unevenly apportioned would truly prove what it claimed to be a union of equals. Already New Jersey, Delaware, Rhode Island, and Maryland were among the smallest and least populous of the states. While they levied heavy taxes to repay state war debts, their larger neighbors might retire debts out of land sale proceeds. Drawn by fresh lands and low taxes, people would desert the small states for the large, leaving the former to fall into bankruptcy and eventually into political subjugation. All the states shared in the war effort, said the New Jersey legislature, how then could half of them 'be left to sink under an enormous debt, whilst others are enabled, in a short period, to replace all their expenditures from the hard earnings of the whole confederacy?' As the Revolution was a common endeavor, so ought its fruits, including the western lands, to be a common property.

1. With which of the following topics is the passage primarily concerned?  
(A) A controversial public-land policy                      (B) How independence from Britain was won  
(C) The land holdings of Massachusetts                      (D) How New Jersey developed its western land
2. According to the passage, the British granted the new American nation a western boundary at  
(A) Ohio                      (B) Illinois  
(C) the Mississippi River                      (D) the Appalachian Mountains
3. Which state laid claim to the largest land -holdings?  
(A) North Carolina                      (B) South Carolina                      (C) Virginia                      (D) Georgia
4. In line 8, the word "stretching" could best be replaced by which of the following?  
(A) Lengthening                      (B) Increasing                      (C) Exaggerating                      (D) Extending

5. Why does the author mention Colonel Clark's expedition?
- (A) To explain how one state strengthened its land claims  
 (B) To criticize an effort to acquire additional agricultural resources  
 (C) To show that many explorers searched for new lands  
 (D) To question the validity of Virginia's claims
6. According to the passage, the smaller states tried to raise money to pay their war debts by
- (A) collecting taxes      (B) exporting crops      (C) selling land      (D) raising cattle

### Passage 3

Without regular supplies of some hormones our capacity to behave would be seriously impaired; without others we would soon die. Tiny amounts of some hormones can modify our moods and our actions, our inclination to eat or drink, our aggressiveness or submissiveness and our reproduction and parental behavior. And hormones do more than influence adult behavior; early in life they help to determine the development of bodily form and may even determine an individual's behavior capacities. Later in life the changing outputs of some endocrine glands and the body's changing sensitivity to some hormones are essential aspects of the phenomena of aging.

Communication within the body and the consequent integration of behavior were considered the exclusive province of the nervous system up to the beginning of the present century. The emergence of endocrinology as a separate discipline can probably be traced to the experiments of Bayliss and Starling on the hormone secreting. This substance is secreted from cells in the intestinal walls when food enters the stomach: it travels through the bloodstream and stimulates the pancreas to liberate pancreatic juice, which aids in digestion. By showing that special cells secrete chemical agents that are conveyed by the bloodstream and regulate distant target organs or tissues, Bayliss and Starling demonstrated that chemical integration can occur without participation of the nervous system.

The term "hormone" was first used with reference to secreting. Starling derived the term from the Greek "hormon", meaning "to excite or set in motion." The term "endocrine" was introduced shortly thereafter. "Endocrine" is used to refer to glands that secrete products into the bloodstream. The term "endocrine" contrasts with "exocrine," which is applied to glands that secrete their products through ducts to the site of action. Examples of exocrine glands are the tear glands, the sweat glands, and the pancreas, which secretes pancreatic juice through a duct into the intestine. Exocrine glands are also called duct glands, while endocrine glands are called ductless.

1. What is the author's main purpose in the passage?
- (A) To explain the specific functions of various hormones  
 (B) To provide general information about hormones  
 (C) To explain how the term "hormone" evolved  
 (D) To report on experiments in endocrinology
2. Which of the following is NOT mentioned as an effect of hormones?
- (A) Modification of behavior      (B) Sensitivity to hunger and thirst  
 (C) Aggressive feelings      (D) Maintenance of blood pressure
3. The passage supports which of the following conclusions?
- (A) The human body requires large amounts of most hormones.  
 (B) Synthetic hormones can replace a person's natural supply of hormones if necessary.

- (C) The quantity of hormones produced and their effects on the body are related to a person's age.  
(D) The short child of tall parents very likely had a hormone deficiency early in life.
4. It can be inferred from the passage that, before the Bayliss and Starling experiments, most people believed that chemical integration occurred only  
(A) during sleep (B) in the endocrine glands  
(C) under control of the nervous system (D) during strenuous exercise
5. In line 14, the word "liberate" could best be replaced by which of the following?  
(A) Emancipate (B) Discharge (C) Surrender (D) Save
6. According to the passage, another term for exocrine glands is  
(A) duct glands (B) endocrine glands  
(C) ductless glands (D) intestinal glands

## Passage 4

During her New York days, Mabel Dodge had preached the gospel of Gertrude Stein and spread the fame of her new style. Like Miss Stein, Mabel Dodge had long planned to "upset" America with fatal disaster to the old order of things,

Gertrude Stein had no interest in anything that was not aggressively modern. She had conceived it as a part of her mission to "kill" the nineteenth century "dead," and she was convinced that her work was "really the beginning of modern writing." Her story "Melanctha" in *Three Lives*, privately printed in 1907, was the "first definite step," as she wrote later, into the twentieth century". There was at least a grain of truth in this.

Just then the movement of modern art, so called for many years, was also beginning in Paris with Matisse and Picasso, and Gertrude Stein and her brother Leo were friends of these protagonists. The Steins had the means to buy their pictures. Gertrude shared, moreover, the point of view of these avant-garde artists, and she endeavored to parallel in words their effects in paint.

Gertrude Stein wrote her "Melanctha" while posing for Picasso's portrait of herself. Picasso had just discovered African sculpture, previously interesting only to curio hunters, and this may have set her mind running on the Black girl Melanctha, whose story was the longest and most moving of her *Three Lives*. It was not difficult to find in these a trace of the influence of African art, with the influence alike of Matisse and Picasso.

1. With what topic is the passage primarily concerned?  
(A) Gertrude Stein's most important works  
(B) The avant-garde community in New York  
(C) Gertrude Stein's contribution to the development of modern literature  
(D) The reactions of various critics to modern art and literature
2. In the first paragraph, the author uses the phrase "preached the gospel" in order to emphasize Mabel Dodge's  
(A) intense devotion to Gertrude Stein  
(B) wide popularity with religious groups  
(C) competitive feelings toward Gertrude Stein  
(D) deep admiration for nineteenth-century literature
3. According to the passage, Gertrude Stein was not interested in anything that was not  
(A) controversial (B) modern (C) literary (D) aggressive

4. According to the passage, Gertrude Stein planned to "kill" the nineteenth century by
- (A) ridiculing the writers of that period
  - (B) creating a form of writing for the twentieth century
  - (C) destroying all the books written during that period
  - (D) printing booklets promoting the merits of twentieth-century literature
5. The story "Melanctha" first appeared in the
- (A) mid-nineteenth century
  - (B) late nineteenth century
  - (C) early twentieth century
  - (D) mid-twentieth century
6. Which of the following statements about the relationship between Gertrude Stein and Henri Matisse's work can be inferred from the passage?
- (A) Matisse and Stein had very different ways of depicting reality.
  - (B) Matisse's later paintings were influenced by Stein's work.
  - (C) Stein preferred Matisse's work to that of other artists because it was more abstract.
  - (D) Stein tried to recreate in her writing the effects in Matisse's paintings.
7. Which of the following is mentioned as one of Picasso's interests?
- (A) African art
  - (B) Classical literature
  - (C) American art
  - (D) Modern literature

## Passage 5

Nast played an important role in President Lincoln's reelection. In 1864 the war was not going well for the North. Many people blamed Lincoln. They were tired of the war. The Democratic candidate, General George B. McClellan, promised peace at any price. Lincoln didn't think he had a chance to be reelected. In August he wrote: "It seems exceedingly probable that this administration will not be reelected. But he had not counted on the support of Thomas Nast. Nast drew cartoons showing McClellan as a man who would compromise with the South. The cartoons were effective, and helped President Lincoln win reelection.

1. What is the author's main point?
- (A) Lincoln asked Thomas Nast for help, but Nast refused.
  - (B) Voters wanted a compromise with the South.
  - (C) Lincoln thought the voters would blame him for not ending the war.
  - (D) Thomas Nast's cartoons helped to reelect Lincoln.
2. According to the passage, how did Lincoln feel about his chances for reelection?
- (A) Doubtful
  - (B) Enthusiastic
  - (C) Indifferent
  - (D) President Lincoln's successor
3. It can be assumed that the paragraph preceding the passage most probably discussed
- (A) the United States economy
  - (B) Thomas Nast
  - (C) General George B. McClellan
  - (D) President Lincoln's successor

# PRACTICE TEST 60

## August 1990

### Passage 1

Scientists estimate that about 35,000 other objects, too small to detect with radar but detectable with powerful Earth-based telescopes, are also circling the Earth at an altitude of 200 to 700 miles. This debris poses little danger to us on the Earth, but since it is traveling at average relative speeds of six miles per second, it can severely damage expensive equipment in a collision. This threat was dramatized by a cavity one-eighth of an inch in diameter created in a window of a United States space shuttle in 1983. The pit was determined to have been caused by a collision with a speck of paint traveling at a speed of about two to four miles per second. The window had to be replaced.

As more and more nations put satellites into space, the risk of collision can only increase. Measures are already being taken to control the growth of orbital debris. The United States has always required its astronauts to bag their wastes and return them to Earth. The United States Air Force has agreed to conduct low-altitude rather than high-altitude tests of objects it puts into space so debris from tests will reenter the Earth's atmosphere and burn up. Extra shielding will also reduce the risk of damage. For example, 2,000 pounds of additional shielding is being considered for each of six space-station crew modules. Further, the European Space Agency, an international consortium is also looking into preventive measures.

1. Which of the following would be the best title for the passage?  
(A) The Problem of Space Debris  
(B) The Space Shuttle of 1983  
(C) The Work of the European Space Agency  
(D) A Collision in Space
2. It can be inferred from the passage that debris was harmful to one of the space shuttles because the debris was  
(A) large  
(B) moving very fast  
(C) radioactive  
(D) burning uncontrollably
3. What effect did orbital debris have on one of the space shuttles?  
(A) It removed some of the paint  
(B) It damaged one of the windows  
(C) It caused a loss of altitude  
(D) It led to a collision with a space station
4. The word "them" in line 11 refers to which of the following?  
(A) Astronauts  
(B) Wastes  
(C) Tests  
(D) Crew modules
5. Which of the following questions is NOT answered by the information in the passage?  
(A) How can small objects orbiting the Earth be seen?  
(B) What is being done to prevent orbital debris from increasing?  
(C) Why is the risk of damage to space equipment likely to increase?  
(D) When did the United States Air Force begin making tests in space?
6. Where in the passage does the writer mention a method of protecting space vehicles against damage by space debris?  
(A) Lines 1-3  
(B) Lines 6-8  
(C) Line 9  
(D) Lines 13-15

## Passage 2

Scattered through the seas of the world are billions of tons of small plants and animals called *plankton*. Most of these plants and animals are too small for the human eye to see. They drift about lazily with the currents, providing a basic food for many larger animals,

Plankton has been described as the equivalent of the grasses that grow on the dry land continents, and the comparison is an appropriate one. In potential food value, however, plankton far outweighs that of the land grasses. One scientist has estimated that white grasses of the world produce about 49 billion tons of valuable carbohydrates each year, the sea's plankton generates more than twice as much.

Despite its enormous food potential, little effort was made until recently to farm plankton as we farm grasses on land. Now, marine scientists have at last begun to study this possibility, especially as the sea's resources loom even more important as a means of feeding an expanding world population.

No one yet has seriously suggested that "planktonburgers" may soon become popular around the world. As a possible farmed supplementary food source, however, plankton is gaining considerable interest among marine scientists.

One type of plankton that seems to have great harvest possibilities is a tiny shrimplike creature called *krill*. Growing to two or three inches long, krill provide the major food for the giant blue whale, the largest animal ever to inhabit the Earth, realizing that this whale may grow to 100 feet and weigh 150 tons at maturity, it is not surprising that each one devours more than one ton of krill daily.

Krill swim about just below the surface in huge schools sometimes miles wide, mainly in the cold Antarctic. Because of their pink color, they often appear as a solid reddish mass when viewed from a ship or from the air. Krill are very high in food value. A pound of these crustaceans contains about 460 calories-about the same as shrimp or lobster to which they are related.

If the krill can feed such huge creatures as whales, many scientists reason, they must certainly be contenders as a new food source for humans.

- Which of the following statements best describes the organization of the passage?
  - The author presents the advantages and disadvantages of plankton as a food source.
  - The author quotes public opinion to support the argument for farming plankton.
  - The author classifies the different food sources according to amount of carbohydrate.
  - The author makes a general statement about plankton as a food source and then moves to a specific example.
- According to the passage, why is plankton considered to be more valuable than land grasses?
 

(A) It is easier to cultivate	(B) It produces more carbohydrates
(C) It does not require soil	(D) It is more palatable
- Why does the author mention "planktonburgers" in line 13 ?
  - To describe the appearance of one type of plankton
  - To illustrate how much plankton a whale consumes
  - To suggest plankton as a possible food source
  - To compare the food values of beef and plankton
- Blue whales have been known to weigh how much at maturity?
 

(A) One ton	(B) Forty tons
(C) One hundred and fifty tons	(D) Four hundred and sixty tons



5. What is mentioned as one distinguishing feature of krill?  
(A) They are the smallest marine animals. (B) They are pink in color.  
(C) They are similar in size to lobsters. (D) They have grass-like bodies.
6. The author mentions all of the following as reasons why plankton could be considered a human food source EXCEPT that it is  
(A) high in food value (B) in abundant supply in the oceans  
(C) an appropriate food for other animals (A) free of chemicals and pollutants
7. Where in the passage does the author first compare plankton to land grasses?  
(A) Lines 2–3 (B) Lines 4–5 (C) Lines 13–14 (D) Lines 16–17

### **Passage 3**

The most interesting architectural phenomenon of the 1970's was the enthusiasm for refurbishing older buildings. Obviously, this was not an entirely new phenomenon. What is new is the wholesale interest in reusing the past, in recycling, in adaptive rehabilitation. A few trial efforts, such as Ghirardell Square in San Francisco, proved their financial viability in the 1960's, but it was in the 1970s, with strong government support through tax incentives and rapid depreciation, as well as growing interest in ecology issues, that recycling became a major factor on the urban scene.

One of the most comprehensive ventures was the restoration and transformation of Boston's eighteenth century Faneuil Hal' and the Quincy Market, designed in 1924 This section had fallen on hard times, but beginning with the construction of a new city hall immediately adjacent. it has returned to life with the intelligent reuse of these fine old buildings under the design leadership of Benjamin Thompson. He has provided a marvelous setting for dining, shopping, professional offices, and simply walking.

Butler Square, in Minneapolis, exemplifies major changes in its complex of offices, commercial space, and public amenities carved out of a massive pile designed in 1906 as a hardware warehouse. The exciting interior timber structure of the building was highlighted by cutting light courts through the interior and adding large skylights. San Antonio, Texas, offers an object lesson for numerous other cities combating urban decay. Rather than bringing in the bulldozers. San Antonio's leaders rehabilitated existing structures, while simultaneously cleaning up the San Antonio River, which meanders through the business district.

1. What is the main idea of the passage?  
(A) During the 1970's, old buildings in many cities were recycled for modern use.  
(B) Recent interest in ecology issues has led to the cleaning up of many rivers.  
(C) The San Antonio example shows that bulldozers are not the way to fight urban Decay.  
(D) Strong government support has made adaptive rehabilitation a reality in
2. What is the space at Quincy Market now used for?  
(A) Boston's new city hall (B) Sports and recreational facilities  
(C) Commercial and industrial warehouses (D) Restaurants, offices, and stores
3. According to the passage, Benjamin Thompson was the designer for a project in  
(A) San Francisco (B) Boston  
(C) Minneapolis (D) San Antonio
4. When was the Butler Square building originally built?  
(A) In the eighteenth century (B) In the early nineteenth century

(C) In the late nineteenth century

(D) In the early twentieth century

5. What is the author's opinion of the San Antonio project?
- (A) It is clearly the best of the projects discussed.  
 (B) It is a good project that could be copied in other cities.  
 (C) The extensive use of bulldozers made the project unnecessarily costly.  
 (D) The work done on the river was more important than the work done on the buildings.
6. The passage states that the San Antonio project differed from those in Boston and Minneapolis in which of the following ways?
- (A) It consisted primarily of new construction.  
 (B) It occurred in the business district.  
 (C) It involved the environment as well as buildings.  
 (D) It was designed to combat urban decay.

### Passage 4

The classic Neanderthals, who lived between about 70,000 and 30,000 years ago, shared a number of special characteristics. Like any biological population, Neanderthals also showed variation in the degree to which those characteristics were expressed. Generally, they were powerfully built, short and stocky, with the lower parts of their arms and legs short in relation to the upper parts, as in modern peoples who live in cold environments. Neanderthal skulls were distinctive, housing brains even larger on average than those of modern humans, a feature that may have had more to do with their large, heavy bodies than with superior intelligence. Seen from behind, Neanderthal skulls look almost spherical, but from the side they are long and flattened often with a bulging back.

The Neanderthal face, dominated by a projecting and full nose, differed clearly from the faces of other hominids; the middle parts appear to be pulled forward (or the sides pulled back), resulting in a rather streamlined face shape. This peculiarity may have been related to the greater importance (in cultural activities as well as food processing) of the front teeth, which are large and part of a row of teeth that lies well forward in the head; it may reflect a reduction in importance of certain jaw muscles operating at the sides of the face; or it may reflect an adaptation to cold. Whether it results from any or all of these three factors or from other, undiscovered causes, this midfacial projection is so characteristic that it unfailingly identifies a Neanderthal to the trained eye. Neanderthal teeth are much more difficult to characterize: the front teeth are large, with strong roots, but the back teeth may be relatively small. This feature may have been an adaptation to cope with heavy tooth wear

1. What does the passage mainly discuss?
- (A) The eating habits of the Neanderthals  
 (B) A comparison of various prehistoric populations  
 (C) The physical characteristics of the Neanderthals  
 (D) The effect of climate on human development
2. The author describes the Neanderthal as being all of the following EXCEPT
- (A) short                      (B) swift                      (C) strong                      (D) stocky
3. Which of the following most likely accounts for the fact that the Neanderthal brain was larger than that of the modern human?
- (A) The relatively large size of the Neanderthal's body  
 (B) The superior intelligence of the Neanderthal.  
 (C) The swelling behind the Neanderthal's head

- (D) The Neanderthal's midfacial projection
4. Where in the passage does the author specifically stress the contrast between the Neanderthal face and that of other biologically related populations?  
(A) Lines 1–4                      (B) Lines 7–9                      (C) Lines 10–11                      (D) Lines 18–20
5. Which of the following explanations is NOT cited as a possible explanation of the Neanderthal's streamlined face shape?  
(A) Some jaw muscles had limited use.  
(B) The facial features were well adapted to the cold.  
(C) The front teeth were particularly important.  
(D) The nose was set far back
6. The phrase "the trained eye" in line 18 most likely refers to which of the following professionals?  
(A) An optometrist                      (B) A dentist                      (C) An anthropologist                      (D) A photographer
7. In line 20, the author uses the expression "heavy tooth wear" to imply that the Neanderthals  
(A) had unusually heavy teeth                      (B) used their teeth extensively  
(C) regularly pulled out their teeth                      (D) used teeth for ornamentation
8. The paragraph following this passage most probably discusses  
(A) other features of the Neanderthal anatomy                      (B) cave painting of prehistoric time  
(C) flora and fauna of 70,000 years ago                      (D) difficulties in preserving fossils

## **Passage 5**

Television was not invented by any one person. Nor did it spring into being overnight. It evolved gradually, over a long period, from the ideas of many people—each one building on the work of their predecessors. The process began in 1873, when it was accidentally discovered that the electrical resistance of the element selenium varied in proportion to the intensity of the light shining on it. Scientists quickly recognized that this provided, away of 'transforming light variations' into electrical signals. Almost immediately a number of schemes were proposed for sending pictures by wire ( it was, of course, before radio).

One of the earliest of these schemes was patterned on the human eye. Suggested by G. R. Carey in 1875, it envisioned a mosaic of selenium cells on which the picture to be transmitted would be focused by a lens system. At the receiving end there would be a similarly arranged mosaic made up of electric lights. Each selenium cell would be connected by an individual wire to the similarly placed light in the receiving mosaic. Light falling on the selenium cell would cause the associated electric light to shine in proportion. Thus the mosaic of lights would reproduce the original picture. Had the necessary amplifiers and the right kind of lights been available, this system would have worked. But it also would have required an impractical number of connecting wires. Carey recognized this and in a second scheme proposed to "scan" the cells—transmitting the signal from each cell to its associated light, in turn over 3 single wire. If this were done fast enough the retentive image to be seen as a complete picture.

1. Which of the following is the best title for the passage?  
(A) The Art of Television                      (B) Television in the Electronic Era  
(C) Harmful Effects of Television                      (D) First step in the Invention of Television
2. In line 1 of the passage, the word "being" could best be replaced by which of the following?  
(A) place                      (B) existence                      (C) creature                      (D) subsistence
3. An important discovery in early television was the electrical resistance of

- (A) mosaics
- (C) lenses

- (B) the human eye
- (D) the element selenium

# PRACTICE TEST 61

## October 1990

### Passage 1

During the early years of this century, wheat was seen as the very lifeblood of Western Canada. When the crops were good, the economy was good; when the crops failed, there was depression. People on city streets watched the yields and the price of wheat with almost as much feeling as if they were growers. The marketing of wheat became an increasingly favorite topic of conversation.

War set the stage for the most dramatic events in marketing the western crop. For years, farmers mistrusted speculative grain selling as carried on through the Winnipeg Grain Exchange. Wheat prices were generally low in the autumn, but farmers could not wait for markets to improve. It had happened too often that they sold their wheat soon after harvest when farm debts were coming due, only to see prices rising and speculators getting rich. On various occasions, producer groups asked for firmer controls, but governments had no wish to become involved, at least not until wartime wheat prices threatened to run wild.

Anxious to check inflation and rising living costs, the federal government appointed a board of grain supervisors to handle deliveries from the crops of 1917 and 1918. Grain Exchange trading was suspended, and farmers sold at prices fixed by the board. To handle the crop of 1919, the government appointed the first Canadian Wheat Board, with full authority to buy, sell, and set prices.

1. What is the main purpose of the passage?  
(A) To explain how wheat is marketed today  
(B) To justify suspension of trading on the Grain Exchange  
(C) To describe the origins of the Canadian Wheat Board  
(D) To argue for further reforms on the Canadian Wheat Board
2. The author uses the term "lifeblood" (line 1) to indicate that wheat was  
(A) difficult to produce in large quantities  
(B) susceptible to many parasites  
(C) essential to the health of the country  
(D) expensive to gather and transport.
3. According to the passage, most farmers debts had to be paid  
(A) when the autumn harvest had just been completed  
(B) because wheat prices were high  
(C) as soon as the Winnipeg Grain Exchange demanded payment  
(D) when crop failure caused depression
4. According to the passage, wheat prices became unmanageable because of conditions caused by  
(A) farmers  
(B) supervisors  
(C) weather  
(D) war
5. In line 13, the word "check" could best be replaced by which of the following?  
(A) control  
(B) investigate  
(C) finance  
(D) reinforce
6. According to the passage, a preliminary step in the creation of the Canadian Wheat Board was the appointment of  
(A) the Winnipeg Grain Exchange  
(B) a board of supervisors  
(C) several producer groups  
(D) a new government

## Passage 2

American Indians played a central role in the war known as the American Revolution. To them, however, the dispute between the colonists and England was peripheral. For American Indians the conflict was a war for American Indian independence, and whichever side they chose they lost it. Mary Brant was a powerful influence among the Iroquois. She was a Mohawk, the leader of the society of all Iroquois matrons, and the widow of Sir William Johnson, Superintendent of Indian Affairs. Her brother, Joseph Brant, is the best-known American Indian warrior of the Revolution, yet she may have exerted even more influence in the Confederacy than he did. She used her influence to keep the western tribes of Iroquois loyal to the English king, George III. When the colonists won the war, she and her tribe had to abandon their lands and retreat to Canada. On the other side, Nancy Ward held position of authority in the Cherokee nation. She had fought as a warrior in the war against the Creeks and as a reward for her heroism was made "Beloved Woman" of the tribe. This office made her chief of the women's council and a member of the council of chiefs. She was friendly with the White settlers and supported the Patriots during the Revolution. Yet the Cherokees too lost their land.

- What is the main point the author makes in the passage?
  - Siding with the English in the Revolution helped American Indians regain their land.
  - At the time of the Revolution, the Superintendent of Indian Affairs had little power.
  - Regardless of whom they supported in the Revolution, American Indians lost their land.
  - The outcome of the Revolution was largely determined by American Indian women.
- The word "it" in line 4 refers to
  - side
  - revolution
  - dispute
  - independence
- According to the passage, Mary Brant's husband had been a
  - government official
  - Mohawk chief
  - revolutionary hero
  - Cherokee council member
- The word "he" in line 8 could be replaced by
  - Sir William Johnson
  - the Superintendent of Indian Affairs
  - Joseph Brant
  - George III
- To which tribe did Nancy Ward belong?
  - Mohawk
  - Iroquois
  - Cherokee
  - Creek
- How did Nancy Ward gain her position of authority?
  - By bravery in battle
  - By marriage to a chief
  - By joining the Confederacy
  - By being born into a powerful family
- According to the passage, what did Mary Brant and Nancy Ward have in common?
  - Each was called "Beloved Woman" by her tribe.
  - Each influenced her tribe's role in the American Revolution
  - Each lost a brother in the American Revolution.
  - Each went to England after the American Revolution.

Passage 3

In the late 1960's, many people in North' America turned their attention to environmental problems and new steel-and-glass skyscrapers were widely criticized. Ecologists pointed out that a cluster of tall buildings in a city often overburdens public transportation and parking lot capacities.

Skyscrapers are also lavish consumers, and wasters, of electric power. In one recent year, the addition of 17 million square feet of skyscraper office space in New York City raised the peak daily demand for electricity by 120, 000 kilowatts-enough to supply the entire city of Albany, New York, for a day.

Glass- walled skyscrapers can be especially wasteful The heat loss (or gain) through a wall of half-inch plate glass is more than ten times that through a typical masonry wall filled with insulation board. To lessen the strain on heating and air-conditioning equipment builders ~f skyscrapers have begun to use double glazed panels of glass, and reflective glasses coated with silver or gold mirror films that reduce glare as well as heat gain. However, mirror-walled skyscrapers raise the temperature of the surrounding air and affect neighboring buildings.

Skyscrapers put a severe strain on a city's sanitation facilities, too. If fully occupied, the two World Trade Center towers in New York City would alone generate 2.25 million gallons of raw sewage each year--as much as a city the size of Stamford, Connecticut, which has a population of more than 109,000.

Skyscrapers also interfere with television reception, block bird flyways, and obstruct air traffic. In Boston in the late 1960's. some people even feared that shadows from skyscrapers would kill the grass on Boston Common.

Still, people continue to build skyscrapers for all the reasons that they have always built them – personal ambition, civic pride, and the desire of owners to have the largest possible amount of rentable space.

1. The main purpose of the passage is to
  - (A) compare skyscrapers with other modern structures
  - (B) describe skyscrapers and their effect on the environment
  - (C) advocate the use of masonry in the construction of skyscrapers
  - (D) illustrate some architectural designs of skyscrapers
2. According to the passage, what is one disadvantage of skyscrapers that have mirrored walls?
  - (A) The exterior surrounding air is heated.
  - (B) The windows must be cleaned daily.
  - (C) Construction time is increased.
  - (D) Extra air-conditioning equipment is needed.
3. According to the passage, in the late 1960's some residents of Boston were concerned with which aspect of skyscrapers?
  - (A) The noise from their construction
  - (B) The removal of trees from building sites
  - (C) The harmful effects on the city's grass
  - (D) The high cost of rentable office space
4. The author raises issues that would most concern which of the following groups?
  - (A) Electricians
  - (B) Environmentalists
  - (C) Aviators
  - (D) Teachers
5. Where in the passage does the author compare the energy consumption of skyscrapers with that of a city?
  - (A) Lines 5-8
  - (B) Lines 13-14
  - (C) Lines 19-21
  - (D) Lines 22-24

## Passage 4

It was not "the comet of the century experts predicted it might be. Nevertheless, Kohoutek had provided a bonanza of scientific information. It was first spotted 370 million miles from Earth, by an astronomer who was searching the sky for asteroids, and after whom the comet was named. Scientists who tracked Kohoutek the ten months before it passed the Earth predicted the comet would be a brilliant spectacle. But Kohoutek fell short of these predictions, disappointing millions of amateur sky watchers, when it proved too pale to be seen with the unaided eye. Researchers were delighted nonetheless with the new information they were able to glean from their investigation of the comet. Perhaps the most significant discovery was the identification of two important chemical compounds—methyl cyanide and hydrogen cyanide—never before seen in comets, but found in the far reaches of interstellar space. This discovery revealed new clues about the origin of comets. Most astronomers agree that comets are primordial remnants from the formation of the solar system, but whether they were born between Jupiter and Neptune or much farther out toward interstellar space has been the subject of much debate. If compounds no more complex than ammonia and methane, key components of Jupiter, were seen in comets, it would suggest that comets form within the planetary orbits. But more complex compounds such as the methyl cyanide found in Kohoutek, point to formation far beyond the planets where the deep freeze of space has kept them unchanged.

- What is the subject of the passage?
 

(A) What was learned from Kohoutek	(B) What was disappointing about Kohoutek
(C) Where Kohoutek was spotted	(D) How Kohoutek was tracked
- Why was Kohoutek referred to as "the comet of the century"?
  - It was thought to be extremely old.
  - It passes the Earth once a century.
  - Scientists predicted it would be very bright.
  - Scientists have been tracking it for a century.
- In what respect was Kohoutek a disappointment?
  - It could be seen only through special equipment.
  - It did not approach the Earth.
  - It did not provide valuable scientific information.
  - It was moving too rapidly for scientists to photograph.
- Before the investigation of Kohoutek, where had methyl cyanide been known to exist?
 

(A) In comets	(B) On asteroids
(C) Between Jupiter and Neptune	(D) Beyond the Earth's solar system
- According to the passage, what is one major component of Jupiter?
 

(A) Hydrogen cyanide	(B) Methyl cyanide
(C) Hydrogen	(D) Ammonia
- What aspect of Kohoutek did scientists find most interesting?
 

(A) Its shape	(B) Its composition
(C) Its orbit	(D) Its size
- Which of the following questions is best answered by information gained from Kohoutek?
 

(A) Where were comets formed?	(B) When were comets formed?
(C) When was the solar system formed?	(D) How was the solar system formed?



### Passage 5

George Washington Carver showed that plant life was more than just food for animals and humans. Carver's first step was to analyze plant parts to find out what they were made of. He then combined these simpler isolated substances with other substances to create new products.

The branch of chemistry that studies and finds ways to use raw materials from farm products to make industrial products is called chemurgy. Carver was one of the first and greatest chemurgists of all time. Today the science of chemurgy is better known as the science of synthetics. Each day people depend on and use synthetic materials made from raw materials. All his life Carver battled against the disposal of waste materials and warned of the growing need to develop substitutes for the natural substances being used up by humans.

Carver never cared about getting credit for the new products he created. He never tried to patent his discoveries or get wealthy from them. He turned down many offers to leave Tuskegee Institute to become a rich scientist in private industry. Thomas Edison, inventor of the electric light, offered him a laboratory in Detroit to carry out food research. When the United States government made him a collaborator in the Mycology and Plant Disease Survey of the Department of Agriculture, he accepted the position with the understanding that he wouldn't have to leave Tuskegee. An authority on plant diseases-especially of the fungus variety- sent hundreds of specimens to the United States Department of Agriculture. At the peak of his career. Carver's fame and influence were known on every continent.

1. With what topic is the passage mainly concerned?  
(A) The work and career of George Washington Carver  
(B) The research conducted at Tuskegee Institute  
(C) The progress of the science of synthetics  
(D) The use of plants as a source of nutrition
2. In line 2, the word "step" could best be replaced by  
(A) footprint                      (B) action                      (C) scale                      (D) stair
3. According to the passage, chemurgy can be defined as the  
(A) combination of chemistry and metallurgy  
(B) research on chemistry of the soil  
(C) study of the relationship between sunlight and energy  
(D) development of industrial products from farm products
4. Why does the author mention Thomas Edison's offer to Carver?  
(A) To illustrate one of Carver's many opportunities  
(B) To portray the wealth of one of Carver's competitors  
(C) To contrast Edison's contribution with that of Carver  
(D) To describe Carver's dependence on industrial support
5. Which of the following is NOT discussed in the passage as work done by Carver?  
(A) Research on electricity                      (B) Analysis of plant parts  
(C) Invention of new products                      (D) Research on plant diseases

# PRACTICE TEST 62

## Questions 1-11

The work of the railroad pioneers in America became the basis for a great surge of railroad building halfway through the nineteenth century that linked the nation together as never before. Railroads eventually became the nation's number one transportation system, and remained so until the construction of the interstate highway system halfway through the twentieth century. They were of crucial importance in stimulating economic expansion, but their influence reached beyond the economy and was pervasive in American society at large.

By 1804, English as well as American inventors had experimented with steam engines for moving land vehicles. In 1825, John Stevens ran a locomotive and cars around in a circular track on his New Jersey estate, which the public saw as an amusing toy. And in 1825, after opening a short length of track, the Stockton to Darlington Railroad in England became the first line to carry general traffic. American businesspeople, especially those in the Atlantic coastal region who looked for better communication with the West, quickly became interested in the English experiment. The first company in America to begin actual operations was the Baltimore and Ohio, which opened a thirteen-mile length of track in 1830. It used a team of horses to pull a train of passenger carriages and freight wagons along the track. Steam locomotive power didn't come into regular service until two years later.

However, for the first decade or more, there was not yet a true railroad system. Even the longest of the lines was relatively short in the 1830's, and most of them served simply to connect water routes to each other, not to link one railroad to another. Even when two lines did connect, the tracks often differed in width, so cars from one line couldn't fit onto tracks of the next line. Schedules were unreliable and wrecks were frequent. Significantly, however, some important developments during the 1830's and 1840's included the introduction of heavier iron rails, more flexible and powerful locomotives, and passenger cars were redesigned to become more stable, comfortable, and larger. By the end of 1830 only 23 miles of track had been laid in the country. But by 1836, more than 1,000 miles of track had been laid in eleven States, and within the decade, almost 3,000 miles had been constructed. By that early age, the United States had already surpassed Great Britain in railroad construction, and particularly from the mid-1860's, the late nineteenth century belonged to the railroads.

1. The word "stimulating" in line 5 is closest in meaning to  
(A) helping                      (B) changing                      (C) promoting                      (D) influencing
2. The word "their" in line 6 refers to  
(A) railroad pioneers                      (B) railroads  
(C) the interstate highway system                      (D) American society
3. Which of the following can be inferred from the passage?  
(A) The United States regarded Great Britain as a competitor in developing the most efficient railroad system  
(B) Steam locomotive power was first used in 1832  
(C) American businessmen saw railroads as a threat to established businesses  
(D) Steam locomotives replaced horses because of the distances across the country

**PRACTICE TEST 62**

4. The author concludes that for the first decade or more, there was not yet a true railroad system because  
(A) passenger cars were not stable, comfortable or large  
(B) locomotives were not powerful enough  
(C) schedules were unreliable and wrecks were frequent  
(D) lines were relatively short and not usually linked
5. The word “schedules” in line 23 is closest in meaning to:  
(A) safety procedures (B) employees  
(C) timetables (D) railroad tracks
6. Which of the following is NOT true about the 1830’s and 1840’s (line 24)  
(A) passenger cars became larger (B) schedules were reliable  
(C) locomotives became more powerful (D) tracks were heavier
7. The word “stable” in line 26 is closest in meaning to  
(A) fixed (B) supportive (C) reliable (D) sound
8. By what time had almost 3,000 miles of track been laid?  
(A) 1830 (B) 1836 (C) 1840 (D) mid-1860s
9. The word “surpassed” in line 29 is closest in meaning to  
(A) exceeded (B) beaten (C) overtaken (D) equaled
10. Where in the passage does the author outline the main conclusions about the importance of railroads in America?  
(A) Lines 3-7 (B) Lines 14-18 (C) Lines 19-21 (D) Lines 29-31
11. Why does the author include details about Great Britain in the passage?  
(A) To compare developments in both the United States and Great Britain  
(B) To illustrate the competitiveness between the two countries  
(C) To show where Americans got their ideas and technology from  
(D) To provide a more complete historical context

**Questions 12-19**

The Nobel Peace Prize is awarded annually and the first woman to win this prize was Baroness Bertha Felicie Sophie von Suttner in 1905. In fact, her work inspired the creation of the Prize. The first American woman to win this prize was Jane Addams, in 1931.

*Line* However, Addams is best known as the founder of Hull House.

- (5) Jane Addams was born in 1860, into a wealthy family. She was one of a small number of women in her generation to graduate from college. Her commitment to improving the lives of those around her led her to work for social reform and world peace. In the 1880s Jane Addams traveled to Europe. While she was in London, she visited a ‘settlement house’ called Toynbee Hall. Inspired by Toynbee Hall, Addams and her friend,
- (10) Ellen Gates Starr, opened Hull House in a neighborhood of slums in Chicago in 1899. Hull House provided a day care center for children of working mothers, a community kitchen, and visiting nurses. Addams and her staff gave classes in English literacy, art, and other subjects. Hull House also became a meeting place for clubs and labor unions. Most of the people who worked with Addams in Hull House were well educated, middle-class women.
- (15) Hull House gave them an opportunity to use their education and it provided a training ground for careers in social work.

Before World War I, Addams was probably the most beloved woman in America. In a newspaper poll that asked, “Who among our contemporaries are of the most value to the

- community?", Jane Addams was rated second, after Thomas Edison. When she opposed America's involvement in World War I, however, newspaper editors called her a traitor and a fool, but she never changed her mind. Jane Addams was a strong champion of several other causes. Until 1920, American women could not vote. Addams joined in the movement for women's suffrage and was a vice president of the National American Woman Suffrage Association. She was a founding member of the National Association for the Advancement of Colored People (NAACP), and was president of the Women's International League for Peace and Freedom. Her reputation was gradually restored during the last years of her life. She died of cancer in 1935.

12. With which of the following subjects is the passage mainly concerned?  
 (A) The first award of the Nobel Peace Prize to an American woman  
 (B) A woman's work for social reform and world peace  
 (C) The early development of Social Work in America  
 (D) Contributions of educated women to American society
13. Which of the following can be inferred from the passage?  
 (A) the work of Baroness Bertha Felicie Sophie von Suttner was an inspiration to Jane Addams  
 (B) Jane Addams is most famous for her opening of Hull House  
 (C) those who lived near Hull House had very poor literacy skills  
 (D) Jane Addams considered herself as a citizen of the world rather than of one particular country
14. The word "commitment" in line 6 is closest in meaning to  
 (A) involvement (B) obligation (C) dedication (D) enthusiasm
15. Jane Addams was inspired to open Hull House because:  
 (A) it gave educated women an opportunity to use their education and develop careers in social work  
 (B) she traveled to Europe in the 1880s  
 (C) she visited Toynbee Hall  
 (D) she was invited by a 'settlement house' in Chicago
16. The word "their" in line 15 refers to  
 (A) children of working mothers (B) middle-class women  
 (C) visiting nurses (D) labor union members
17. The word "contemporaries" in line 18 is closest in meaning to  
 (A) people of the same time (B) famous people still alive  
 (C) elected officials (D) people old enough to vote
18. According to the passage, Jane Addams' reputation was damaged when she  
 (A) allowed Hull House to become a meeting place for clubs and labor unions  
 (B) joined in the movement for women's suffrage  
 (C) became a founding member of the NAACP  
 (D) opposed America's involvement in World War I
19. Where in the passage does the author mention the services provided by Hull House?  
 (A) Lines 5-10 (B) Lines 10-15 (C) Lines 15-20 (D) Lines 20-25

Questions 20-29

The medieval artists didn't know about perspective; they didn't want to make their people look like real, individual people in a real, individual scene. They wanted to show the truth, the eternal quality of their religious stories. So these artists didn't need to know

*Line* about perspective.

- (5) In the European Renaissance period, artists wanted to show the importance of the individual person and his or her possessions and surroundings. A flat medieval style couldn't show this level of reality and the artists needed a new technique. It was the Italian artist Brunelleschi who discovered the technique of perspective drawing. At first the artists of the Renaissance only had single-point perspective. Later they realized that they could
- (10) have two-pointed perspective and still later multi-point perspective.

- (15) With two-point perspective they could turn an object (like a building) at an angle to the picture and draw two sides of it. The technique of perspective which seems so natural to us now is an invented technique, a part of the "grammar of painting". Like all bits of grammar there are exceptions about perspective. For example, only vertical and horizontal surfaces seem to meet on eye level. Sloping roof tops don't meet on eye level.

- (20) For 500 years, artists in Europe made use of perspective drawing in their pictures. Nevertheless, there are a range of priorities that artists in displaying individual styles. Crivelli wanted to show depth in his picture and he used a simple single-point perspective. Cezanne always talked about space and volume. Van Gogh, like some of the other painters of the Impressionist period, was interested in Japanese prints. And Japanese artists until this century were always very strong designers of "flat" pictures. Picasso certainly made pictures which have volume and depth. However, he wanted to keep our eyes on the surface and to remind us that his paintings are paintings and not illusions.

- (25) It is technically easy to give an illusion of depth. However, a strong two dimensional design is just as important as a feeling of depth, and perhaps more important.

20. The passage mainly discusses

- (A) the difference between medieval and Renaissance art
- (B) how the technique of perspective influenced the modern art
- (C) the discovery of the technique of perspective
- (D) the contribution of Renaissance artists

21. The word "eternal" in line 3 is closest in meaning to

- (A) timeless
- (B) infinite
- (C) frequent
- (D) constant

22. According to the passage, which is the main concern for medieval artists?

- (A) the individual person and his/her possessions and surroundings
- (B) real people, real scenes
- (C) eternal timeless truth of the earth
- (D) themes of religious stories

23. The discovery of perspective was the result of

- (A) Renaissance artists' to prove that the medieval artists could show level of reality
- (B) the need to turn an object at an angle and draw more than one side of it
- (C) the subject being shifted from religious stories to individual person and surroundings.
- (D) natural evolution of human senses

24. The word "it" in line 12 refers to  
 (A) the picture (B) perspective (C) angle (D) the object
25. The word "Grammar" in line 13 is closest in meaning to  
 (A) construction (B) grammatical rules  
 (C) rules and regulations (D) tones and volume
26. The author's purpose to give the example in line 14-15 is to  
 (A) explain how perspective work in painting  
 (B) support two-pointed perspective  
 (C) illustrate that there are exceptions about perspective  
 (D) point out that the technique of perspective though seems so natural is an invented technique
27. The following artists' priorities in style shift away from perspective EXCEPT  
 (A) Crivelli (B) Cezanne (C) Japanese artists (D) Brunelleschi
28. The word "Illusion" in line 25 is closest in meaning to  
 (A) deception (B) photograph (C) decoration (D) illustration
29. It can be inferred from the passage that Renaissance artists  
 (A) embraced the medieval style of eternal truth  
 (B) needed to develop a new approach towards painting to show a new level of reality  
 (C) were inspired by vertical and horizontal surfaces in inventing the technique of perspective  
 (D) saw two dimensional design more important than a feeling of depth

### Questions 30-39

There are two main hypotheses when it comes to explaining the emergence of modern humans. The 'Out of Africa' theory holds that homo sapiens burst onto the scene as a new species around 150,000 to 200,000 years ago in Africa and subsequently replaced archaic humans such as the Neandertals. The other model, known as multi-regional evolution or regional continuity, posits far more ancient and diverse roots for our kind. Proponents of this view believe that homo sapiens arose in Africa some 2 million years ago and evolved as a single species spread across the Old World, with populations in different regions linked through genetic and cultural exchange.

Of these two models, Out of Africa, which was originally developed based on fossil evidence, and supported by much genetic research, has been favored by the majority of evolution scholars. The vast majority of these genetic studies have focused on DNA from living populations, and although some small progress has been made in recovering DNA from Neandertal that appears to support multi-regionalism, the chance of recovering nuclear DNA from early human fossils is quite slim at present. Fossils thus remain very much a part of the human origins debate.

Another means of gathering theoretical evidence is through bones. Examinations of early modern human skulls from Central Europe and Australia dated to between 20,000 and 30,000 years old have suggested that both groups apparently exhibit traits seen in their Middle Eastern and African predecessors. But the early modern specimens from Central Europe also display Neandertal traits, and the early modern Australians showed affinities to archaic Homo from Indonesia. Meanwhile, the debate among paleoanthropologists continues, as supporters of the two hypotheses challenge the evidence and conclusions of each other.

- 30.** The passage primarily discusses which of the following
- (A) Evidence that supports the “Out of Africa” theory
  - (B) Two hypotheses and some evidence on the human origins debate
  - (C) The difficulties in obtaining agreement among theorists on the human origins debate
  - (D) That fossils remain very much a part of the human origins debate
- 31.** The word “emergence” in line 1 is closest in meaning to
- (A) complexity
  - (B) development
  - (C) appearance
  - (D) decline
- 32.** The word “proponents” in line 6 is closest in meaning to
- (A) experts
  - (B) advocates
  - (C) inspectors
  - (D) historians
- 33.** All of the following are true except
- (A) three methods of gathering evidence are mentioned in the passage
  - (B) the multi-regional model goes back further in history.
  - (C) the Out of Africa model has had more support from scholars
  - (D) DNA studies offer one of the best ways in future to provide clear evidence.
- 34.** The word “slim” in line 14 is closest in meaning to
- (A) small
  - (B) narrow
  - (C) thin
  - (D) difficult
- 35.** Which of the following is not true
- (A) the vast majority of genetic studies have focused on living populations
  - (B) early modern human skulls all support the same conclusions
  - (C) both hypotheses focus on Africa as a location for the new species.
  - (D) early modern Australian skulls have similarities to those from Indonesia.
- 36.** In line 18, the word “their ” refers to which of the following
- (A) Middle Easterners and Africans
  - (B) skulls
  - (C) central Europeans and Australians
  - (D) traits
- 37.** Which of the following is NOT true about the two hypotheses
- (A) Both hypotheses regard Neandertals to be the predecessors of modern humans
  - (B) Genetic studies have supported both hypotheses
  - (C) Both hypotheses cite Africa as an originating location.
  - (D) One hypothesis dates the emergence of homo sapiens much earlier than the other.
- 38.** It can be inferred from the passage that
- (A) there is likely to be an end to the debate in the near future
  - (B) the debate will interest historians to take part in
  - (C) the debate is likely to be less important in future
  - (D) there is little likelihood that the debate will die down.
- 39.** According to the passage, the multi-regional evolution model posits far more diverse roots for our kind because
- (A) Evidence from examinations of early modern human skulls has come from a number of different parts of the world.
  - (B) DNA from Neandertal appears to support multi-regionalism
  - (C) Populations in different regions were linked through genetic and cultural exchange
  - (D) This has been supported by fossil evidence

### Questions 40-50

Although management principles have been implemented since ancient times, most management scholars trace the beginning of modern management thought back to the early 1900s, beginning with the pioneering work of Frederick Taylor (1856-1915)

*Line* Taylor was the first person to study work scientifically. He is most famous for introducing  
 (5) techniques of time and motion study, differential piece rate systems, and for systematically specializing the work of operating employees and managers. Along with other pioneers such as Frank and Lillian Gilbreth, Taylor set the stage, labeling his philosophy and methods “scientific management”. At that time, his philosophy, which was concerned with  
 (10) productivity, but which was often misinterpreted as promoting worker interests at the expense of management, was in marked contrast to the prevailing industrial norms of worker exploitation.

The time and motion study concepts were popularized by Frank and Lillian Gilbreth. The Gilbreths had 12 children. By analyzing his children’s dishwashing and bedmaking chores, this pioneer efficiency expert, Frank Gilbreth, hit on principles whereby workers  
 (15) could eliminate waste motion. He was memorialized by two of his children in their 1949 book called “Cheaper by the Dozen”.

The Gilbreth methods included using stop watches to time worker movements and special tools (cameras and special clocks) to monitor and study worker performance, and also involved identification of “therbligs” (Gilbreth spelled backwards) – basic motions  
 (20) used in production jobs. Many of these motions and accompanying times have been used to determine how long it should take a skilled worker to perform a given job. In this way an industrial engineer can get a handle on the approximate time it should take to produce a product or provide a service. However, use of work analysis in this way is unlikely to lead to useful results unless all five work dimensions are considered: physical, psychological, social, cultural, and power.

40. What is the passage primarily about?

- (A) The limitations of pioneering studies in understanding human behavior
- (B) How time and motion studies were first developed
- (C) The first applications of a scientific approach to understanding human behavior
- (D) The beginnings of modern management theory

41. The word “which” in line 9 refers to

- (A) scientific management
- (B) philosophy
- (C) productivity
- (D) time and motion study

42. It can be inferred from the first paragraph that

- (A) workers welcomed the application of scientific management
- (B) Taylor’s philosophy is different from the industrial norms
- (C) by the early 1900s science had reached a stage where it could be applied to the workplace
- (D) workers were no longer exploited after the introduction of scientific management.

43. The word “prevailing” in line 10 is closest in meaning to

- (A) predominant
- (B) broadly accepted
- (C) prevalent
- (D) common





# PRACTICE TEST 63

## Question 1-10

Mountaineers have noted that as they climb, for example, up to the 12,633-foot Humphreys Peak in the San Francisco Peaks in Arizona, plant life changes radically. Starting among the cacti of the Sonoran Desert, one climbs into a pine forest at 7,000 feet and a treeless alpine tundra at the summit. It may seem that plants at a given altitude are associated in what can be called “communities” – groupings of interacting species. The idea is that over time, plants that require particular climate and soil conditions come to live in the same places, and hence are frequently to be found together. Scientists who study the history of plant life are known as paleobotanists, or paleobots for short. They build up a picture of how groups of plants have responded to climate changes and how ecosystems develop. But are these associations, which are real in the present, permanent?

A great natural experiment took place on this planet between 25,000 and 10,000 years ago, when small changes in the earth’s orbit and axis of rotation caused great sheets of ice to spread from the poles. These glaciers covered much of North America and Europe to depths of up to two miles, and then, as the climate warmed, they retreated. During this retreat, they left behind newly uncovered land for living things to colonize, and as those living things moved in they laid down a record we can read now. As the ice retreated and plants started to grow near a lake, they would release pollen. Some would fall into the lake, sink to the bottom, and be incorporated into the sediment. By drilling into the lake bottom it is possible to read the record of successive plant life around the lake. The fossil record seems clear; there is little or no evidence that entire groups of plants moved north together. Things that lived together in the past don’t live together now, and things that live together now didn’t live together in the past. Each individual organism moved at its own pace. The fossil record seems to be telling us that we should be thinking about preserving species by giving them room to maneuver – to respond to environmental changes.

1. What is the passage mainly about?  
(A) The effects of the ice age on plants  
(B) Plant migration after the ice age  
(C) The need to develop a new approach to environmental issues  
(D) Communities of plants live at different altitudes
2. The word “radically” in line 2 is closest in meaning to  
(A) variably                      (B) demonstrably                      (C) quickly                      (D) dramatically
3. The author mentions “cacti” in line 3 and a “treeless alpine tundra” in line 4 to illustrate  
(A) changes in climate                      (B) the effects of the ice age  
(C) communities of plants                      (D) plant migration
4. The word “which” in line 10 refers to  
(A) the responses of plants to climate changes  
(B) the current theories of ecosystems  
(C) the developments of ecosystems  
(D) plant life changes
5. The word “axis” in line 12 is closest in meaning to  
(A) center                      (B) method                      (C) change                      (D) slowdown
6. The word “successive” in line 19 is closest in meaning to  
(A) extinct                      (B) consecutive                      (C) accumulative                      (D) following

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7. The passage states that by drilling into the lake bottom it is possible to find successive fossils of  
(A) sediment                      (B) ice                      (C) plant life                      (D) pollen
8. Which of the following can be inferred from the passage  
(A) that the migratory patterns of plants are dependent upon changes in climate  
(B) that modern conservation methods should consider the migratory patterns of plants  
(C) that current associations of plants are similar to those in the past  
(D) that another ice age is likely to occur at some time
9. According to the passage, the movement of individual species of plants  
(A) occurs in groups                      (B) often depends upon the formation of lakes  
(C) does not occur in groups                      (D) depends upon climate and soil conditions
10. All of the following are true except  
(A) The ice age occurred when small changes affected the movement of the earth  
(B) Fossil records seem to indicate that plants will be preserved if they have sufficient room to move  
(C) Fossil records clearly show that entire groups of plants are unlikely to have moved together  
(D) In the ice age glaciers covered the world to depths of up to two miles

**Question 11-21**

Some pioneering work that began as an attempt to discover ways to increase production efficiency led to the founding of the human relations movement in industry and to the development of motivational skills and tools for managers. In 1927 researchers  
*Line* were involved in determining the optimum amount of lighting, temperature, and humidity  
(5) (with lighting being considered the most important) for the assembly of electronic components at Western Electric. The researchers found that lighting had no consistent effect on production. In fact, production sometimes increased when lighting was reduced to the level of ordinary moonlight! The important part of this experiment began when two Harvard researchers, Elton Mayo and Fritz Roethlisberger, were brought in to investigate  
(10) these unexpected results further. They found that workers were responding not to the level of lighting but to the fact that they were being observed by the experimenters.

This phenomenon came to be known as the Hawthorne effect since the experiments were conducted at the Western Electric Hawthorne plant. This was the first documented and widely published evidence of the psychological effects on doing work, and it led to the  
(15) first serious effort aimed at examining psychological and social factors in the workplace. Further experiments were continued for five years. Generally, the researchers concluded from their experiments that economic motivation (pay) was not the sole source of productivity and, in some cases, not even the most important source. Through interviews and test results, the researchers focused on the effects of work attitudes, supervision, and  
(20) the peer group and other social forces, on productivity.

Their findings laid the groundwork for modern motivation theory, and the study of human factors on the job, which continues to this day in such common practices as selection and training, establishing favorable work conditions, counseling, and personnel operations. The contributions of this experiment shifted the focus of human motivation  
(25) from economics to a multifaceted approach including psychological and social forces.

11. What is the passage primarily about?  
 (A) The first widely published development in modern motivation theory  
 (B) Shifting the focus of human motivation from economics to a multifaceted approach  
 (C) The importance of careful research  
 (D) The results of a pioneering study at Western Electric
12. The word "optimum" in line 4 is closest in meaning to  
 (A) positive (B) favorable (C) best (D) alternate
13. The most significant finding of the original research was  
 (A) lighting had no consistent effect on production  
 (B) production sometimes increased when lighting was reduced to the level of ordinary moonlight.  
 (C) that lighting was no more important than the other factors of temperature and humidity.  
 (D) the results were unexpected and confusing.
14. Why does the author say that the important part of this research began when two Harvard researchers were brought in (lines 8-9)  
 (A) Until then the research had been poorly conducted  
 (B) They took a multifaceted approach  
 (C) The results of the original research did not make sense  
 (D) Harvard has a good reputation in conducting research
15. The research became known as the "Hawthorne effect" because  
 (A) it was the name of the plant where the study was conducted  
 (B) It was the name suggested by the Harvard researchers  
 (C) It was the name of the principal experimenter  
 (D) There were Hawthorne plants growing at Western Electric where the study was conducted
16. The word "it" in line 14 refers to  
 (A) the experiment (B) economic motivation  
 (C) the Western Electric Hawthorn plant (D) the Hawthorne effect
17. It can be inferred from this passage that the Hawthorne study  
 (A) led to lighting, temperature, and humidity no longer being considered important when seeking ways to improve production  
 (B) Stimulated further research into work condition and worker behavior  
 (C) Led to psychological factors becoming the most important consideration in achieving production efficiency  
 (D) Led to economic considerations being less important in achieving productivity
18. Part of the reason for the change in focus from economics to a more multifaceted approach to the psychological effects on doing work was  
 (A) due to the recognition that workers should be happy at work in order to maintain high productivity  
 (B) a general conclusion that pay was sometimes not the most important factor  
 (C) because the Hawthorne study continued for so long  
 (D) because the workers requested it
19. According to the passage, it can be concluded that a "multifaceted approach" to human motivation in the workplace  
 (A) excludes economics  
 (B) can lead to greater productivity  
 (C) excludes physical conditions  
 (D) focuses mainly on psychological and social forces

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20. The word “multifaceted” in line 25 is closest in meaning to  
(A) versatile                      (B) complex                      (C) many-sided                      (D) multitude
21. Which of the following is NOT true about the Hawthorne study  
(A) It was the first documented evidence of the psychological effects on doing work  
(B) The Hawthorne study continued for five years  
(C) They found that workers responded not to the level of lighting but to the fact that other work conditions were not favorable  
(D) The study changed the focus from economics to a multifaceted approach

**Question 22-31**

The handling and delivery of mail has always been a serious business, underpinned by the trust of the public in requiring timeliness, safety, and confidentiality. After early beginnings using horseback and stagecoach, and although cars and trucks later replaced stagecoaches and wagons, the Railway Mail Service still stands as one of America’s most resourceful and exciting postal innovations. This service began in 1832, but grew slowly until the Civil War. Then from 1862, by sorting the mail on board moving trains, the Post Office Department was able to decentralize its operations as railroads began to crisscross the nation on a regular basis, and speed up mail delivery. This service lasted until 1974. During peak decades of service, railway mail clerks handled 93% of all non-local mail and by 1905 the service had over 12,000 employees.

Railway Post Office trains used a system of mail cranes to exchange mail at stations without stopping. As a train approached the crane, a clerk prepared the catcher arm which would then snatch the incoming mailbag in the blink of an eye. The clerk then booted out the outgoing mailbag. Experienced clerks were considered the elite of the Postal Service’s employees, and spoke with pride of making the switch at night with nothing but the curves and feel of the track to warn them of an upcoming catch. They also worked under the greatest pressure and their jobs were considered to be exhausting and dangerous. In addition to regular demands of their jobs they could find themselves the victims of train wrecks and robberies.

As successful as it was, “mail-on-the-fly” still had its share of glitches. If they hoisted the train’s catcher arm too soon, they risked hitting switch targets, telegraph poles or semaphores, which would rip the catcher arm off the train. Too late, and they would miss an exchange.

22. What does the passage mainly discuss?  
(A) How Post Office Trains handled the mail without stopping  
(B) The skills of experienced clerks  
(C) How the mail cranes exchanged the mail  
(D) Improvements in mail handling and delivery
23. The word “underpinned” in line 1 is closest in meaning to  
(A) lowered                      (B) underlain                      (C) obliged                      (D) required
24. The public expects the following three services in handling and delivery of mail except  
(A) confidentiality                      (B) timeliness                      (C) safety                      (D) accuracy
25. According to the passage, the Railway Mail Service commenced in  
(A) 1832                      (B) 1842                      (C) 1874                      (D) 1905

26. Which of the following can be inferred from the first paragraph
- (A) Mail was often lost or damaged as it was exchanged on the mail crane
  - (B) There was a high turnover of railway mail clerks
  - (C) The development of the railroads during the second half of the 19th century enabled Post Office Department to focus on timeliness
  - (D) The Post Office Department was more concerned about speeding up mail delivery than the safety of its clerks
27. The word “elite” in line 14 is closest in meaning to
- (A) superior
  - (B) majority
  - (C) more capable
  - (D) leader
28. Which of the following is true, according to the passage
- (A) The clerk booted out the outgoing mailbag before snatching the incoming bag
  - (B) Clerks couldn’t often see what they were doing
  - (C) The Railway Mail clerk’s job was considered elite because it was safe and exciting
  - (D) Despite their success railway mail clerks only handled a small proportion of all non-local mail
29. In line 18, the word “they” refers to
- (A) trains
  - (B) Postal Service’s employees
  - (C) Mailbags
  - (D) Experience clerks
30. The word “glitches” in line 20 can be replaced by
- (A) accidents
  - (B) blames
  - (C) advantages
  - (D) problems
31. Where in the passage does the author first mention the dangers of the Post Office clerk’s job?
- (A) Lines 5-9
  - (B) Lines 10-14
  - (C) Lines 15-19
  - (D) Lines 20-23

### Questions 32-40

- Amelia Earhart was born in Kansas in 1897. Thirty one years later, she received a phone call that would change her life. She was invited to become the first woman passenger to cross the Atlantic Ocean in a plane. The flight took more than 20 hours –
- Line* about three times longer than it routinely takes today to cross the Atlantic by plane.
- (5) Earhart was twelve years old before she ever saw an airplane, and she didn’t take her first flight until 1920. But she was so thrilled by her first experience in a plane that she quickly began to take flying lessons. She wrote, “As soon as I left the ground, I knew I myself had to fly.”
- After that flight Earhart became a media sensation. She was given a ticker tape
- (10) parade down Broadway in New York and even President Coolidge called to congratulate her. Because her record-breaking career and physical appearance were similar to pioneering pilot and American hero Charles Lindbergh, she earned the nickname “Lady Lindy.” She wrote a book about her flight across the Atlantic, called *20 Hrs., 40 Min.*
- Earhart continued to break records, and also polished her skills as a speaker and
- (15) writer, always advocating women’s achievements, especially in aviation. Her next goal was to achieve a transatlantic crossing alone. In 1927 Charles Lindbergh became the first person to make a solo nonstop flight across the Atlantic. Five years later, Earhart became the first woman to repeat that feat. Her popularity grew even more and she was the undisputed queen of the air. She then wanted to fly around the world, and in June 1937

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- (20) she left Miami with Fred Noonan as her navigator. No one knows why she left behind important communication and navigation instruments. Perhaps it was to make room for additional fuel for the long flight. The pair made it to New Guinea in 21 days and then left for Howland Island, a tiny island in the middle of the Pacific Ocean. The last communication from Earhart and Noonan was on July 2, 1937 with a nearby Coast Guard ship. The United States Navy conducted a massive search for more than two weeks but no trace of the plane or its passengers was ever found. Many people believe they got lost and simply ran out of fuel and died.
- (25)

**32.** With which of the following subjects is the passage mainly concerned?

- (A) The history of aviation  
(B) The tragic death of the queen of air  
(C) Achievements of early aviation pioneers  
(D) The achievements of a pioneering aviatrix

**33.** According to the passage, which of the following statements about Earhart is NOT true?

- (A) She wrote a book about her solo nonstop flight across the Atlantic, called 20 Hrs., 40 Min.  
(B) In her last adventure, she didn't take communication and navigation instruments by accident, and that led to the tragedy.  
(C) She is regarded as the female Chare Lindbergh in aviation.  
(D) She was in her late twenties when she took her first flight.

**34.** According to the passage, when did Amelia Earhart began her first flight

- (A) when she was 12 years old  
(B) 1920  
(C) when she first saw an airplane  
(D) when she started to take flying lessons.

**35.** The word "sensation" in line 8 is closest in meaning to

- (A) feeling  
(B) hit  
(C) excitement  
(D) perception

**36.** Amelia Earhart was called "Lady Lindy" because

- (A) she was the undisputed queen of the air.  
(B) President Coolidge gave her the nickname.  
(C) she repeated Charles Lindbergh's feat.  
(D) of her career and her physical resemblance to Lindbergh

**37.** The word "undisputed" in line18 is closest in meaning to

- (A) contemporary  
(B) undeceived  
(C) dissipated  
(D) undoubted

**38.** The word "it" in line 20 refers to

- (A) plane  
(B) communication  
(C) the reason  
(D) aviation.

**39.** The word "massive" in line 25 is closest in meaning to

- (A) substantial  
(B) general  
(C) large  
(D) careful

**40.** It may be inferred from the passage that Amelia Earhart

- (A) would not have developed her love of flying if she had not been invited to become the first woman passenger to cross the Atlantic in a plane.  
(B) Would have continued to seek new adventures and records to break if she had not died at the age of 39.  
(C) became too confident and took too many risks to be able to live to old age.  
(D) did not want to return to the United States.

## Question 41-50

Music can bring us to tears or to our feet, drive us into battle or lull us to sleep. Music is indeed remarkable in its power over all humankind, and perhaps for that very reason, no human culture on earth has ever lived without it. From discoveries made in  
*Line* France and Slovenia even Neanderthal man, as long as 53,000 years ago, had developed  
 (5) surprisingly sophisticated, sweet-sounding flutes carved from animal bones. It is perhaps then, no accident that music should strike such a chord with the limbic system – an ancient part of our brain, evolutionarily speaking, and one that we share with much of the animal kingdom. Some researchers even propose that music came into this world long before the human race ever did. For example, the fact that whale and human music have  
 (10) so much in common even though our evolutionary paths have not intersected for nearly 60 million years suggests that music may predate humans. They assert that rather than being the inventors of music, we are latecomers to the musical scene.

Humpback whale composers employ many of the same tricks that human songwriters do. In addition to using similar rhythms, humpbacks keep musical phrases to a  
 (15) few seconds, creating themes out of several phrases before singing the next one. Whale songs in general are no longer than symphony movements, perhaps because they have a similar attention span. Even though they can sing over a range of seven octaves, the whales typically sing in key, spreading adjacent notes no farther apart than a scale. They mix percussive and pure tones in pretty much the same ratios as human composers – and  
 (20) follow their ABA form, in which a theme is presented, elaborated on and then revisited in a slightly modified form. Perhaps most amazing, humpback whale songs include repeating refrains that rhyme. It has been suggested that whales might use rhymes for exactly the same reasons that we do: as devices to help them remember. Whale songs can also be rather catchy. When a few humpbacks from the Indian Ocean strayed into the Pacific,  
 (25) some of the whales they met there quickly changed their tunes – singing the new whales' songs within three short years. Some scientists are even tempted to speculate that a universal music awaits discovery.

41. Why did the author write the passage?

- (A) To describe the music for some animals, including humans
- (B) To illustrate the importance of music to whales
- (C) To show that music is not a human or even modern invention
- (D) To suggest that music is independent of life forms that use it

42. The word “sophisticated” in line 5 is closest in meaning to

- (A) complex
- (B) intricate
- (C) well-developed
- (D) entangled

43. The word “one” in line 7 can be replaced by

- (A) the chord
- (B) the left brain
- (C) the right brain
- (D) the limbic system

44. According to the passage, which of the following is true of humpback whales

- (A) their tunes are distinctively different from human tunes
- (B) they can sing over a range of seven octaves
- (C) they do not use rhyme, unlike humans



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(D) whale songs of a particular group cannot be learned by other whales

45. The word "they" in line 18 refers to

- (A) human composers (B) whole songs  
(C) octaves (D) whales

46. Which of the following is NOT true about humpback whale music?

- (A) It uses similar patterns to human songs  
(B) It's comparative in length to symphony movements  
(C) It's easy to learn by other whales  
(D) It's in a form of creating a theme, elaborating and revisiting in rhyming refrains

47. The word "refrains" in line 22 is closest in meaning to

- (A) tunes (B) notes (C) musical phrases (D) sounds

48. Which of the following can be inferred from the passage?

- (A) The earliest human beings came from France and Slovenia  
(B) Music helped to shape the whale brain  
(C) Humpback whales imitate the way human composers so in creating their own music  
(D) The research of musical brain will lead to a discovery of a universal music

49. Where in the passage does the author first mention whales?

- (A) Lines 5-9 (B) Lines 10-14  
(C) Lines 15-19 (D) Lines 20-24

50. The word "their" in line 25 refers to

- (A) Indian Ocean humpbacks (B) Pacific Ocean humpbacks  
(C) all whales (D) whale songs

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## Questions 1-11

Jazz has been called “the art of expression set to music”, and “America’s great contribution to music”. It has functioned as popular art and enjoyed periods of fairly widespread public response, in the “jazz age” of the 1920s, in the “swing era” of the late 1930s and in the peak popularity of modern jazz in the late 1950s. The standard legend about Jazz is that it originated around the end of the 19th century in New Orleans and moved up the Mississippi River to Memphis, St. Louis, and finally to Chicago. It welded together the elements of Ragtime, marching band music, and the Blues. However, the influences of what led to those early sounds goes back to tribal African drum beats and European musical structures. Buddy Bolden, a New Orleans barber and cornet player, is generally considered to have been the first real Jazz musician, around 1891.

What made Jazz significantly different from the other earlier forms of music was the use of improvisation. Jazz displayed a break from traditional music where a composer wrote an entire piece of music on paper, leaving the musicians to break their backs playing exactly what was written on the score. In a Jazz piece, however, the song is simply a starting point, or sort of skeletal guide for the Jazz musicians to improvise around. Actually, many of the early Jazz musicians were bad sight readers and some couldn’t even read music at all. Generally speaking, these early musicians couldn’t make very much money and were stuck working menial jobs to make a living. The second wave of New Orleans Jazz musicians included such memorable players as Joe Oliver, Kid Ory, and Jelly Roll Morton. These men formed small bands and took the music of earlier musicians, improved its complexity, and gained greater success. This music is known as “hot Jazz” due to the enormously fast speeds and rhythmic drive.

A young cornet player by the name of Louis Armstrong was discovered by Joe Oliver in New Orleans. He soon grew up to become one of the greatest and most successful musicians of all time, and later one of the biggest stars in the world. The impact of Armstrong and other talented early Jazz musicians changed the way we look at music.

1. The Passage answers which of the following questions?

- (A) Why did Ragtime, marching band music, and the Blues lose popularity after about 1900?
- (B) What were the origins of Jazz and how did it differ from other forms of music?
- (C) What has been the greatest contribution of cornet players to music in the twentieth century?
- (D) Which early Jazz musicians most influenced the development of Blues music?

2. According to the passage, Jazz originated in

- (A) Chicago
- (B) St. Louis
- (C) along the Mississippi river
- (D) New Orleans

3. The word “welded” in line 6 is closest in meaning to

- (A) squeezed
- (B) bound
- (C) added
- (D) stirred

4. Which of the following distinguished Jazz as a new form of musical expression?

- (A) the use of cornets
- (B) “hot Jazz”
- (C) improvisation
- (D) New Orleans

5. The word “skeletal” in line 15 is closest in meaning to

- (A) framework
- (B) musical
- (C) basic
- (D) essential

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6. Which of the following can be inferred from the passage?  
(A) many early Jazz musicians had poor sight  
(B) there is no slow music in Jazz  
(C) many early Jazz musicians had little formal musical training  
(D) the cornet is the most common musical instrument used in Jazz
7. The word “menial” in line 18 is closest in meaning to  
(A) mens                      (B) attractive                      (C) degrading                      (D) skilled
8. According to the passage, which of the following belonged to the second wave of New Orleans Jazz musicians?  
(A) Louis Armstrong                      (B) Buddy Bolden                      (C) St. Louis                      (D) Joe Oliver
9. All of the following are true EXCEPT  
(A) the late 1930s was called the “swing era”  
(B) “hot Jazz” is rhythmic  
(C) Jazz has been said to be America’s greatest contribution to music  
(D) Joe Oliver is generally considered to be the first real Jazz musician
10. The word “its” in line 21 refers to  
(A) small bands                      (B) earlier music                      (C) men                      (D) earlier musicians
11. Which of the following terms is defined in the passage?  
(A) “improvisation” (line 12)                      (B) “traditional” (line 12)  
(C) “composer” (line 12)                      (D) “score” (line 14)

**Questions 12-21**

The Moon has been worshipped by primitive peoples and has inspired humans to create everything from lunar calendars to love sonnets, but what do we really know about it? The most accepted theory about the origin of the Moon is that it was formed of the debris from a massive collision with the young Earth about 4.6 billion years ago. A huge body, perhaps the size of Mars, struck the Earth, throwing out an immense amount of debris that coalesced and cooled in orbit around the Earth.

The development of Earth is inextricably linked to the moon; the Moon’s gravitational influence upon the Earth is the primary cause of ocean tides. In fact, the Moon has more than twice the effect upon the tides than does the Sun. The Moon makes one rotation and completes a revolution around the Earth every 27 days, 7 hours, and 43 minutes. This synchronous rotation is caused by an uneven distribution of mass in the Moon (essentially, it is heavier on one side than the other) and has allowed the Earth’s gravity to keep one side of the Moon permanently facing Earth. It is an average distance from Earth of 384,403 km.

The Moon has no atmosphere; without an atmosphere, the Moon has nothing to protect it from meteorite impacts, and thus the surface of the Moon is covered with impact craters, both large and small. The Moon also has no active tectonic or volcanic activity, so the erosive effects of atmospheric weathering, tectonic shifts, and volcanic upheavals that tend to erase and reform the Earth’s surface features are not at work on the Moon. In fact, even tiny surface features such as the footprint left by an astronaut in the lunar soil are likely to last for millions of years, unless obliterated by a chance meteorite strike. The surface gravity of the Moon is about one-sixth that of the Earth’s. Therefore, a man weighing 82 kilograms on Earth would only weigh 14 kilograms on the Moon. The geographical features of the Earth most like that of the Moon are, in fact, places such

(25) as the Hawaiian volcanic craters and the huge meteor crater in Arizona. The climate of the Moon is very unlike either Hawaii or Arizona, however; in fact the temperature on the Moon ranges between 123 degrees C. to -233 degrees C.

12. What is the passage primarily about?  
 (A) the Moon's effect upon the Earth  
 (B) the origin of the Moon  
 (C) what we know about the Moon and its differences to Earth  
 (D) a comparison of the Moon and the Earth
13. The word "massive" in line 4 is closest in meaning to  
 (A) unavoidable (B) dense (C) huge (D) impressive
14. The word "debris" in line 5 is closest in meaning to  
 (A) rubbish (B) satellites (C) moons (D) earth
15. According to the passage, the Moon is  
 (A) older than the Earth (B) protected by a dense atmosphere  
 (C) composed of a few active volcanoes (D) the primary cause of Earth's ocean tides
16. The word "uneven" in line 11 is closest in meaning to  
 (A) Heavier (B) Equally distributed  
 (C) Orderly (D) Not uniform
17. Why does the author mention "impact craters" in line 16?  
 (A) to show the result of the Moon not having an atmosphere  
 (B) to show the result of the Moon not having active tectonic or volcanic activity  
 (C) to explain why the Moon has no plant life because of meteorites  
 (D) to explain the corrosive effects of atmospheric weathering
18. The word "erase" in line 19 is closest in meaning to  
 (A) change (B) impact (C) obliterate (D) erupt
19. A person on the Moon would weigh less than on the Earth because  
 (A) of the composition of lunar soil  
 (B) the surface gravity of the Moon is less  
 (C) the Moon has no atmosphere  
 (D) the Moon has no active tectonic or volcanic activity
20. All of the following are true about the Moon EXCEPT  
 (A) it has a wide range of temperatures  
 (B) it is heavier on one side than the other  
 (C) it is unable to protect itself from meteorite attacks  
 (D) it has less effect upon the tides than the Sun
21. Which of the following can be inferred from the passage?  
 (A) the Moon is not able to support human life  
 (B) if the Moon had no gravitational influence, the Earth would not have tides  
 (C) people living in Hawaii and Arizona would feel at home on the Moon  
 (D) Mars could have been formed in a similar way to the Moon

**Questions 22-31**

Line People of Hispanic origin were on the North American continent centuries before  
 (5) settlers arrived from Europe in the early 1600s and the thirteen colonies joined together to  
 form the United States in the late 1700s. The first census of the new nation was conducted  
 in 1790, and counted about four million people, most of whom were white. Of the white  
 citizens, more than 80% traced their ancestry back to England. There were close to  
 700,000 slaves and about 60,000 “free Negroes”. Only a few Native American Indians who  
 paid taxes were included in the census count, but the total Native American population  
 was probably about one million.

(10) By 1815, the population of the United States was 8.4 million. Over the next 100  
 years, the country took in about 35 million immigrants, with the greatest numbers coming  
 in the late 1800s and early 1900s. In 1882, 40,000 Chinese arrived, and between 1900  
 and 1907, there were more than 30,000 Japanese immigrants. But by far, the largest  
 numbers of the new immigrants were from central, eastern, and southern Europe.

(15) An enormous amount of racial and ethnic assimilation has taken place in the United  
 States. In 1908, play-writer Israel Zangwill first used the term “melting pot” to describe the  
 concept of a place where many races melted in a crucible and re-formed to populate a  
 new land. Some years during the first two decades of the 20th century, there were as  
 many as one million new immigrants per year, an astonishing 1 percent of the total  
 population of the United States.

(20) In 1921, however, the country began to limit immigration, and the Immigration Act of  
 1924 virtually closed the door. The total number of immigrants admitted per year dropped  
 from as many as a million to only 150,000. A quota system was established that specified  
 the number of immigrants that could come from each country. It heavily favored  
 immigrants from northern and western Europe and severely limited everyone else. This  
 (25) system remained in effect until 1965, although after World War II, several exceptions were  
 made to the quota system to allow in groups of refugees.

**22.** Why did the author write the passage?

- (A) to outline the ways immigration has been restricted
- (B) to emphasize the impact of migrants from Europe
- (C) to explain and give examples of the concept of a “melting pot”
- (D) to summarize the main features of immigration

**23.** According to the passage, which ancestry predominated at the time of the first census?

- (A) Native Americans
- (B) Negroes
- (C) English
- (D) Hispanic

**24.** The word “ancestry” in line 5 is closest in meaning to

- (A) origins
- (B) inheritance
- (C) color
- (D) freedom

**25.** The word “their” in line 5 refers to which of the following

- (A) immigrants
- (B) people of Hispanic origin
- (C) white citizens
- (D) Native Americans

**26.** Which of the following is true, according to the passage?

- (A) a quota system was in place from 1908
- (B) a peak period of immigration was in the late 1800s and early 1900s
- (C) slaves were not counted in the first census

- (D) only those who paid taxes were included in the first census
27. The number of immigrants taken in over the 100 years to 1915 was  
 (A) probably about 1 million (B) about 35 million  
 (C) 8.4 million (D) about 4 million
28. The word “concept” in line 16 is closest in meaning to  
 (A) location (B) type (C) complexity (D) thought
29. The word “virtually” in line 21 is closest in meaning to  
 (A) effectively (B) occasionally (C) thoroughly (D) undeservedly
30. Which of the following is NOT true about immigrants  
 (A) they were subjected to an official quota in the Immigration Act from 1924  
 (B) during the 1900s immigrants numbered 1 percent of the total population  
 (C) settlers of Hispanic origin arrived centuries before those from Europe  
 (D) numbers began to be limited from 1921
31. Which of the following can be inferred from the passage  
 (A) preserving a developing “American” culture was a major factor leading to the introduction of the quota system  
 (B) racial and ethnic assimilation did not occur as planned  
 (C) racial and ethnic tensions would have increased if the quota system had not been introduced  
 (D) the quota system was introduced to limit population growth

### Questions 32-40

Considered the most influential architect of his time, Frank Lloyd Wright (1867-1959) was born in the small rural community of Richland Center, Wisconsin. He entered the University of Wisconsin at the age of 15 as a special student, studying engineering because the school had no course in architecture. At the age of 20 he then went to work as a draughtsman in Chicago in order to learn the traditional, classical language of architecture. After marrying into a wealthy business family at the age of 21, Wright set up house in an exclusive neighborhood in Chicago, and after a few years of working for a number of architectural firms, set up his own architectural office.

For twenty years he brought up a family of six children upstairs, and ran a thriving architectural practice of twelve or so draughtsmen downstairs. Here, in an idyllic American suburb, with giant oaks, sprawling lawns, and no fences, Wright built some sixty rambling homes by the year 1900. He became the leader of a style known as the “Prairie” school - houses with low-pitched roofs and extended lines that blended into the landscape and typified his style of “organic architecture”.

By the age of forty-one, in 1908, Wright had achieved extraordinary social and professional success. He gave countless lectures at major universities, and started his Taliesin Fellowship – a visionary social workshop in itself. In 1938 he appeared on the cover of Time magazine, and later, on a two cent stamp. The most spectacular buildings of his mature period were based on forms borrowed from nature, and the intentions were clearly romantic, poetic, and intensely personal. Examples of these buildings are Tokyo’s Imperial Hotel (1915-22: demolished 1968), and New York City’s Guggenheim Museum (completed 1959) He continued working until his death in 1959, at the age of 92, although in his later years, he spent as much time giving interviews and being a celebrity, as he did

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in designing buildings. Wright can be considered an essentially idiosyncratic architect whose influence was immense but whose pupils were few.

- 32.** With which of the following subjects is the passage mainly concerned?  
(A) the development of modern architecture in America  
(B) the contributions of the "Prairie" School to modern architecture  
(C) the life and achievements of a famous architect  
(D) the influence of the style of "organic architecture" in America
- 33.** Frank Lloyd Wright first worked as a draughtsman because  
(A) for twenty years he lived above his shop and employed draughtsmen  
(B) to learn the language of architecture  
(C) that is what he studied at the University of Wisconsin  
(D) that is the work of new employees in architectural firms
- 34.** The word "some" in line 11 is closest in meaning to  
(A) around                      (B) over                      (C) nearly                      (D) exactly
- 35.** According to the passage, an idyllic American suburb is  
(A) based on forms borrowed from nature  
(B) blended into the landscape  
(C) giant oaks, sprawling lawns, and no fences  
(D) houses with low-pitched roofs and extended lines
- 36.** The word "blended" in line 13 is closest in meaning to  
(A) dug                      (B) cut                      (C) imposed                      (D) merged
- 37.** The word "itself" in line 17 refers to  
(A) social workshop                      (B) Taliesin Fellowship  
(C) He                      (D) Major universities
- 38.** The word "idiosyncratic" in line 24 is closest in meaning to  
(A) idiotic                      (B) idealistic                      (C) individualistic                      (D) independent
- 39.** Which of the following can be inferred from the passage?  
(A) the Taliesin Fellowship was a grant of money  
(B) many of Wright's architectural ideas have not been taken up by others  
(C) Wright used his wife's money to set up his own architectural office in an exclusive neighborhood in Chicago  
(D) Some of Wright's most notable buildings have been demolished because they were not popular
- 40.** All of the following about Frank Lloyd Wright are true EXCEPT  
(A) he became the leader of a style known as "organic architecture"  
(B) he died at the age of 92  
(C) he commenced university studies at the age of 15  
(D) some of his most spectacular buildings were not in America

### Questions 41-50

The healing power of maggots is not new. Human beings have discovered it several times. The Maya are said to have used maggots for therapeutic purposes a thousand years ago. As early as the sixteenth century, European doctors noticed that soldiers with maggot-infested wounds healed well. More recently, doctors have realized that maggots can be cheaper and more effective than drugs in some respects, and these squirming larvae have, at times, enjoyed a quiet medical renaissance. The problem may have more to do with the weak stomachs of those using them than with good science. The modern heyday of maggot therapy began during World War I, when an American doctor named William Baer was shocked to notice that two soldiers who had lain on a battlefield for a week while their abdominal wounds became infested with thousands of maggots, had recovered better than wounded men treated in the military hospital. After the war, Baer proved to the medical establishment that maggots could cure some of the toughest infections.

In the 1930s hundreds of hospitals used maggot therapy. Maggot therapy requires the right kind of larvae. Only the maggots of blowflies (a family that includes common bluebottles and greenbottles) will do the job; they devour dead tissue, whether in an open wound or in a corpse. Some other maggots, on the other hand, such as those of the screw-worm eat live tissue. They must be avoided. When blowfly eggs hatch in a patient's wound, the maggots eat the dead flesh where gangrene-causing bacteria thrive. They also excrete compounds that are lethal to bacteria they don't happen to swallow. Meanwhile, they ignore live flesh, and in fact, give it a gentle growth-stimulating massage simply by crawling over it. When they metamorphose into flies, they leave without a trace – although in the process, they might upset the hospital staff as they squirm around in a live patient. When sulfa drugs, the first antibiotics, emerged around the time of World War II, maggot therapy quickly faded into obscurity.

41. Why did the author write the passage?
- (A) because of the resistance to using the benefits of maggots
  - (B) to demonstrate the important contribution of William Baer
  - (C) to outline the healing power of maggots
  - (D) to explain treatment used before the first antibiotics
42. The word "renaissance" in line 6 is closest in meaning to
- (A) revival
  - (B) resistance
  - (C) support
  - (D) condemnation
43. According to the passage, William Bayer was shocked because
- (A) two soldiers had lain on the battlefield for a week
  - (B) the medical establishment refused to accept his findings
  - (C) the soldiers abdominal wounds had become infested with maggots
  - (D) the soldiers had recovered better than those in a military hospital
44. Which of the following is true, according to the passage?
- (A) sulfa drugs have been developed from maggots
  - (B) maggots only eat dead tissue
  - (C) bluebottles and greenbottles produce maggots



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(D) blowfly maggots only eat dead tissue

45. The word “devour” in line 16 is closest in meaning to  
(A) chew                      (B) clean                      (C) change                      (D) consume
46. The word “thrive” in line 19 is closest in meaning to  
(A) prosper                      (B) eat                      (C) move                      (D) grow
47. The word “metamorphose” in line 22 is closest in meaning to  
(A) disappear                      (B) grow                      (C) change                      (D) move
48. The word “they” in line 23 refers to  
(A) flies                      (B) maggots  
(C) gangrene-causing bacteria                      (D) live patients
49. All of the following are true EXCEPT  
(A) maggots come from eggs  
(B) maggots eat bacteria  
(C) maggots are larvae  
(D) William Bayer discovered a new type of maggot
50. What can be inferred from the passage about maggots?  
(A) modern science might be able to develop new drugs from maggots that would fight infection  
(B) maggot therapy would have been more popular if antibiotics had not been discovered  
(C) William Baer later changed his mind about the value of using maggot therapy  
(D) sulfa drugs were developed from maggots

# PRACTICE TEST 65

## Questions 1-10

Baseball evolved from a number of different ball-and-stick games (paddle ball, trap ball, one-old-cat, rounders, and town ball) originating in England. As early as the American Revolution, it was noted that troops played “base ball” in their free time. In 1845 Alexander Cartwright formalized the New York Knickerbockers’ version of the game: a diamond shaped infield, with bases ninety feet apart, three strikes-you’re-out, batter out on a caught ball, three outs per inning, a nine man team. The “New York Game” spread rapidly, replacing earlier localized forms. From its beginnings, baseball was seen as a way of satisfying the recreational needs of an increasingly urban-industrial society. At its inception it was played by and for wealthy gentlemen. A club might consist of 40 members. The president would appoint two captains who would choose teams from among the members. Games were played on Monday and Thursday afternoons, with the losers often providing a lavish evening’s entertainment for the winners.

During the 1850-70 period the game was changing, however, with increasing commercialism (charging admission), under-the-table payments to exceptional players, and gambling on the outcome of games. By 1868 it was said that a club would have their regular professional ten, an amateur first-nine, and their “muffins” (the gentlemanly duffers who once ran the game) Beginning with the first openly all-salaried team (Cincinnati’s Red Stocking Club) in 1869, the 1870-1890 period saw the complete professionalization of baseball, including formation of the National Association of Professional Baseball Players in 1871. The National League of Professional Base Ball Clubs was formed in 1876, run by business-minded investors in joint-stock company clubs. The 1880s has been called Major League Baseball’s “Golden Age”. Profits soared, player’s salaries rose somewhat, a season of 84 games became one of 132, a weekly periodical “The Sporting News” came into being, wooden stadiums with double-deck stands replaced open fields, and the standard refreshment became hot dogs, soda pop and peanuts. In 1900 the Western League based in the growing cities of the Midwest proclaimed itself the American League.

1. What is the passage mainly about?
  - (A) the origins of baseball
  - (B) the commercialization of baseball
  - (C) the influence of the “New York Game” on baseball
  - (D) the development of baseball in the nineteenth century
2. Which of the following can be inferred from the passage?
  - (A) the wealthy gentlemen who first played baseball, later needed to find another recreational opportunity if they did not want to mix with others or become a “muffin”
  - (B) hot dogs would not have become as popular as they did, without the professionalism and commercialism that developed in baseball
  - (C) the “New York Game” spread rapidly because it was better formalized
  - (D) business-minded investors were only interested in profits
3. The word “inception” in line 9 is closest in meaning to
  - (A) requirements
  - (B) beginning
  - (C) insistence
  - (D) rules
4. The word “lavish” in line 12 is closest in meaning to
  - (A) prolonged
  - (B) very generous
  - (C) grand
  - (D) extensive

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5. Which of the following is true of the way the game was played by wealthy gentlemen at its inception
- (A) a team might consist of 40 members
  - (B) the president would choose teams from among the members
  - (C) they didn't play on weekends
  - (D) they might be called "duffers" if they didn't make the first nine
6. According to the second paragraph, all of the following are true except
- (A) commercialism became more prosperous
  - (B) the clubs are smaller
  - (C) outstanding players got extra income
  - (D) people gamed on the outcome of games
7. Which of the following is NOT mentioned as a feature of the 1880s "Golden Age"?
- (A) wooden stadiums replaced open fields
  - (B) a weekly periodical commenced
  - (C) the National Association of Professional Baseball Players was formed
  - (D) profits soared
8. The word "somewhat" in line 24 is closest in meaning to
- (A) to a significant extent
  - (B) to a minor extent
  - (C) to not the same extent
  - (D) to some extent
9. The word "itself" in line 28 refers to
- (A) the Western League
  - (B) growing cities
  - (C) the Midwest
  - (D) the American League
10. Where in the passage does the author first mention payments to players
- (A) lines 5-9
  - (B) lines 10-14
  - (C) lines 15-19
  - (D) lines 20-25

**Questions 11-20**

Philosophy in the second half of the 19th century was based more on biology and history than on mathematics and physics. Revolutionary thought drifted away from metaphysics and epistemology and shifted more towards ideologies in science, politics, and sociology. Pragmatism became the most vigorous school of thought in American philosophy during this time, and it continued the empiricist tradition of grounding knowledge on experience and stressing the inductive procedures of experimental science. The three most important pragmatists of this period were the American philosophers Charles Peirce (1839-1914), considered to be the first of the American pragmatists, William James (1842-1910), the first great American psychologist, and John Dewey (1859-1952), who further developed the pragmatic principles of Peirce and James into a comprehensive system of thought that he called "experimental naturalism", or "instrumentalism".

Pragmatism was generally critical of traditional western philosophy, especially the notion that there are absolute truths and absolute values. In contrast, Josiah Royce (1855-1916), was a leading American exponent of idealism at this time, who believed in an absolute truth and held that human thought and the external world were unified. Pragmatism called for ideas and theories to be tested in practice, assessing whether they produced desirable or undesirable results. Although pragmatism was popular for a time in Europe, most agree that it epitomized the American faith in know-how and practicality, and the equally American distrust of abstract theories and ideologies. Pragmatism is best understood in its historical and cultural context. It arose during a period of rapid scientific advancement, industrialization, and material progress; a time when the theory of evolution suggested to many thinkers that humanity and society are in a perpetual state of progress.

(25) This period also saw a decline in traditional religious beliefs and values. As a result, it became necessary to rethink fundamental ideas about values, religion, science, community, and individuality. Pragmatists regarded all theories and institutions as tentative hypotheses and solutions. According to their critics, the pragmatist's refusal to affirm any absolutes carried negative implications for society, challenging the foundations of society's institutions.

11. What is this passage primarily about?
- (A) the evolution of philosophy in the second half of the 19th century
  - (B) the three most important American pragmatists of the late 19th century
  - (C) the differences between pragmatism and traditional western philosophy
  - (D) American pragmatism
12. Which of the following is true
- (A) idealism was an important part of the pragmatic approach
  - (B) "pragmatism" was also known as "traditional western philosophy"
  - (C) pragmatism continued the empiricist tradition
  - (D) pragmatism is best understood independently of its historical and cultural context
13. Which of the following is true, according to the passage
- (A) absolute truths and values are notions in western traditional philosophy
  - (B) John Dewey was the first great American psychologist
  - (C) the empiricist tradition is part of traditional western philosophy
  - (D) revolutionary thought was not pragmatic
14. The phrase "at this time" in line 14 refers to
- (A) at the time traditional western philosophy was dominant in America
  - (B) at the time pragmatism was popular in Europe
  - (C) 1855-1916
  - (D) the second half of the 19th century
15. According to the passage, pragmatism was more popular in America than Europe because
- (A) Americans had greater acceptance of the theory of evolution
  - (B) it epitomized the American faith in know-how and practicality
  - (C) Europe had a more traditional society based on a much longer history
  - (D) industrialization and material progress was occurring at a faster pace in America at that time
16. The word "abstract" in line 19 is closest in meaning to
- (A) unclear
  - (B) not concrete
  - (C) new
  - (D) old
17. The word "perpetual" in line 22 is closest in meaning to
- (A) challenging
  - (B) continuous
  - (C) declining
  - (D) secular
18. The word "fundamental" in line 24 is closest in meaning to
- (A) new
  - (B) personal
  - (C) essential
  - (D) threatening
19. All of the following are true EXCEPT
- (A) revolutionary thought shifted more towards ideologies in science, politics and sociology
  - (B) pragmatists regarded all theories and institutions as tentative hypotheses and solutions
  - (C) Josiah Royce was not a pragmatist
  - (D) pragmatism was based on the theory of evolution
20. Which of the following can be inferred from the passage?
- (A) Josiah Royce considered Charles Peirce to be challenging the foundations of society's institutions
  - (B) Charles Peirce considered Josiah Royce to be too influenced by the theory of evolution

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- (C) John Dewey would not have developed his system of thought called “experimental naturalism” or “instrumentalism” without the pioneering work of Charles Peirce and William James  
(D) Josiah Royce was a revolutionary thinker

**Questions 21-30**

The human criterion for perfect vision is 20/20 for reading the standard lines on a Snellen eye chart without a hitch. The score is determined by how well you read lines of letters of different sizes from 20 feet away. But being able to read the bottom line on the eye chart does not approximate perfection as far as other species are concerned. Most birds would consider us very visually handicapped. The hawk, for instance, has such sharp eyes that it can spot a dime on the sidewalk while perched on top of the Empire State Building. It can make fine visual distinctions because it is blessed with one million cones per square millimeter in its retina. And in water, humans are farsighted, while the kingfisher, swooping down to spear fish, can see well in both the air and water because it is endowed with two foveae – areas of the eye, consisting mostly of cones, that provide visual distinctions. One foveae permits the bird, while in the air, to scan the water below with one eye at a time. This is called monocular vision. Once it hits the water, the other fovea joins in, allowing the kingfisher to focus both eyes, like binoculars, on its prey at the same time. A frog’s vision is distinguished by its ability to perceive things as a constant motion picture. Known as “bug detectors”, a highly developed set of cells in a frog’s eyes responds mainly to moving objects. So, it is said that a frog sitting in a field of dead bugs wouldn’t see them as food and would starve.

The bee has a “compound” eye, which is used for navigation. It has 15,000 facets that divide what it sees into a pattern of dots, or mosaic. With this kind of vision, the bee sees the sun only as a single dot, a constant point of reference. Thus, the eye is a superb navigational instrument that constantly measures the angle of its line of flight in relation to the sun. A bee’s eye also gauges flight speed. And if that is not enough to leave our 20/20 “perfect vision” paling into insignificance, the bee is capable of seeing something we can’t – ultraviolet light. Thus, what humans consider to be “perfect vision” is in fact rather limited when we look at other species. However, there is still much to be said for the human eye. Of all the mammals, only humans and some primates can enjoy the pleasures of color vision.

21. What does the passage mainly discuss?  
(A) limits of the human eye (B) perfect vision  
(C) different eyes for different uses (D) eye variation among different species
22. The word “criterion” in line 1 is closest in meaning to  
(A) standard (B) need (C) expectation (D) rule
23. The phrase “without a hitch” in line 2 is closest in meaning to  
(A) unaided (B) without glasses  
(C) with little hesitation (D) easily
24. According to the passage, why might birds and animals consider humans very visually handicapped?  
(A) humans can’t see very well in either air or water  
(B) human eyes are not as well suited to our needs  
(C) the main outstanding feature of human eyes is color vision  
(D) human eyes can’t do what their eyes can do
25. The word “that” in line 10 refers to  
(A) foveae (B) areas of the eye  
(C) cones (D) visual distinctions

26. According to the passage, "bug detectors" are useful for  
 (A) navigation (B) seeing moving objects  
 (C) avoiding bugs when getting food (D) avoiding starvation
27. According to the passage, which of the following is NOT true  
 (A) kingfishers have monocular vision  
 (B) bees see patterns of dots  
 (C) hawks eyes consist mostly of cones that can allow it to scan with one eye at a time  
 (D) humans are farsighted in water
28. Where in the passage does the author discuss that eyes are useful for avoiding starvation?  
 (A) lines 5-9 (B) lines 10-14 (C) lines 15-19 (D) lines 20-25
29. The phrase "paling into insignificance" in line 23 is closest in meaning to  
 (A) fading away (B) of less importance  
 (C) without colored light (D) being reduced to little importance
30. Which of the following can be inferred from the passage?  
 (A) eyes have developed differently in each species  
 (B) bees have the most complex eye  
 (C) humans should not envy what they don't need  
 (D) perfect vision is not perfect

### Questions 31-39

Labor Day, the first Monday in September, is a creation of the labor movement and is dedicated to the social and economic achievements of American workers. The first Labor Day holiday was celebrated on Tuesday, September 5, 1882 in New York City in accordance with the plans of the Central Labor Union. The idea for this day is attributed to a man named McGuire, but there is some controversy about which man named McGuire. This celebration was repeated the following year, then in 1884, the first Monday in September was selected, and the Central Labor Union urged similar organizations in other cities to follow the example of New York and celebrate a "workingmen's holiday" on that date. The idea spread with the growth of labor organizations, and in 1885 Labor Day was celebrated in many industrial centers of the country.

Through the years the nation gave increasing emphasis to Labor Day. The first government recognition came through municipal ordinances passed during 1885 and 1886, leading to a movement to secure State legislation. The first bill was introduced into the New York legislature, but the first to become law was passed by Oregon in 1887. During that year four more States (Colorado, Massachusetts, New Jersey, and New York) also legislated for Labor Day. By 1894, 23 other States had adopted the holiday, and in June of that year, Congress passed an Act, making the first Monday in September of each year a legal holiday in the District of Columbia and the territories.

The form that the observance and celebration should take, was outlined to be a street parade to exhibit to the public "the strength and 'esprit de corps' of the trade and labor organizations", followed by a festival for the recreation and amusement of workers and their families. By resolution of the American Federation of Labor Convention in 1909, the Sunday preceding Labor Day was adopted as Labor Sunday, and dedicated to the spiritual and educational aspects of the labor movement.

31. The phrase “this day” in line 4 refers to  
(A) the first Monday in September (B) Labor Day holiday  
(C) Tuesday, September 5 (D) the workingman’s holiday
32. The author implies that which of the following is true?  
(A) Labor Day has lost its importance over the years  
(B) Labor Day was, in part, a religious festival  
(C) there is a dispute about who thought of the idea for Labor Day  
(D) celebrations were usually limited to the industrial centers
33. The word “urged” in line 7 is closest in meaning to  
(A) devoted (B) propelled (C) speeded (D) satisfied
34. According to the passage, Government recognition for Labor Day was first achieved in  
(A) 1882 (B) 1884 (C) 1885 (D) 1887
35. The word “secure” in line 14 is closest in meaning to  
(A) gain (B) implement (C) guarantee (D) pass
36. According to the passage, the first State to pass legislation for Labor Day was  
(A) Columbia (B) Oregon (C) New York (D) Colorado
37. The word “exhibit” in line 21 is closest in meaning to  
(A) celebrate (B) exemplify (C) demonstrate (D) display
38. Which of the following is NOT true  
(A) by 1894, twenty eight States had passed legislation for Labor Day  
(B) including families was an important part of Labor Day celebrations  
(C) the first legislative bill was introduced in New York  
(D) Labor Day has always been held on the first Monday in September
39. The word “preceding” in line 24 is closest in meaning to  
(A) closest to (B) following (C) before (D) on

**Questions 40-50**

At the turn of the nineteenth century, Concord was a thriving community, already famous throughout the young nation for its critical early role in the events leading up to the American Revolution. It was the half shire town for Middlesex County, attracting over 500  
*Line* visitors to the courts twice a year, among them customers for Concord’s hats, shoes,  
(5) carriages and clocks. Among Concord’s approximately 400 heads of households in this period, about 65% were in agriculture, 4% in commerce, and 35% in manufacturing. Of those in manufacturing, seven men headed clockmaking shops and another thirty or so were engaged in the shops or in businesses that supplied the clockmaking trade – the brass foundry, iron forge, wire-drawing mill, and a number of cabinetmaking shops. In  
(10) short, the center of Concord, the Milldam, was a machine for the production of clocks, second only in importance to Boston’s industrial Roxbury Neck, where the influential Willard family had been producing clocks since about 1785.

(15) While the handsome and well-crafted clocks of these seven shops, featuring inlaid mahogany cases, enameled dials and reverse painted glasses, are generally perceived as products of a traditional clockmaker (one person at a bench fashioning an eight-day clock from scratch), they are actually products of a network of shops employing journeymen labor that extended from Concord to Boston and overseas to the highly developed tool trade of Lancashire, England.

(20) In addition to crafting in the fashionable Willard features such as the pierced fretwork, columns with brass fixtures, and white enamel dial, Concord clockmakers attempted to differentiate their products from those of the Willards through such means as a distinctive ornamental inlay, which added to the perception of custom work not usually seen on the Willard's standardized products. The Willards also made less expensive wall clocks, including "banjo clocks" patented by Simon Willard in 1802. The distinctive (25) diamond shaped design and inverted movement of some Concord wall clocks may reflect an attempt to circumvent Willard's patent.

40. What is the passage primarily about?
- (A) clockmaking in Concord at the turn of the nineteenth century  
 (B) Concord at the turn of the nineteenth century  
 (C) Competition between Concord clockmakers and the Willards  
 (D) The influence of the Willards on clockmaking in Concord
41. According to the passage, which of the following businesses did NOT supply the clockmaking trade?
- (A) wire-drawing mill  
 (B) cabinetmaking shops  
 (C) iron forge  
 (D) glass shops
42. The phrase "in short" in line 10 is closest in meaning to
- (A) generally speaking  
 (B) to sum up  
 (C) in conclusion  
 (D) however
43. According to the passage, "the Milldam" was
- (A) where the Willard family had been producing clocks  
 (B) a type of clock  
 (C) in Boston's industrial Roxbury Neck  
 (D) in Concord
44. Which of the following terms does the author explain in the passage?
- (A) banjo clocks (line 24)  
 (B) journeymen labor (line 17)  
 (C) traditional clockmaker (line 15)  
 (D) pierced fretwork (line 20)
45. Which of the following features is NOT mentioned as a way the Concord clockmakers attempted to differentiate their products from Willards
- (A) inverted movements  
 (B) brass fixtures  
 (C) distinctive ornamental inlay  
 (D) diamond shaped design
46. The word "differentiate" in line 21 is closest in meaning to
- (A) identify  
 (B) distinguish  
 (C) dignify  
 (D) divide
47. The author implies that the Concord clockmakers
- (A) would do anything to try to compete with Willards  
 (B) attempted to customize their products as much as possible  
 (C) were the most important industry in Concord  
 (D) were in danger of being prosecuted for breach of patent
48. The word "inverted" in line 25 is closest in meaning to



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(A) intricate                      (B) musical                      (C) upside down                      (D) external

**49.** The word “circumvent” in line 26 is closest in meaning to

(A) copy                      (B) evade                      (C) compete with                      (D) minimize

**50.** Where in the passage does the author mention the features of the well-crafted clocks of Concord?

(A) lines 5-9                      (B) lines 10-14  
(C) lines 15-19                      (D) lines 20-25

# PRACTICE TEST 66

## Questions 1-10

William Sydney Porter (1862-1910), who wrote under the pseudonym of O. Henry, was born in North Carolina. His only formal education was to attend his Aunt Lina's school until the age of fifteen, where he developed his lifelong love of books. By 1881 he was a licensed pharmacist. However, within a year, on the recommendation of a medical colleague of his Father's, Porter moved to La Salle County in Texas for two years herding sheep. During this time, Webster's Unabridged Dictionary was his constant companion, and Porter gained a knowledge of ranch life that he later incorporated into many of his short stories. He then moved to Austin for three years, and during this time the first recorded use of his pseudonym appeared, allegedly derived from his habit of calling "Oh, Henry" to a family cat. In 1887, Porter married Athol Estes. He worked as a draftsman, then as a bank teller for the First National Bank.

In 1894 Porter founded his own humor weekly, the "Rolling Stone", a venture that failed within a year, and later wrote a column for the Houston Daily Post. In the meantime, the First National Bank was examined, and the subsequent indictment of 1886 stated that Porter had embezzled funds. Porter then fled to New Orleans, and later to Honduras, leaving his wife and child in Austin. He returned in 1897 because of his wife's continued ill-health, however she died six months later. Then, in 1898 Porter was found guilty and sentenced to five years imprisonment in Ohio. At the age of thirty five, he entered prison as a defeated man; he had lost his job, his home, his wife, and finally his freedom. He emerged from prison three years later, reborn as O. Henry, the pseudonym he now used to hide his true identity. He wrote at least twelve stories in jail, and after re-gaining his freedom, went to New York City, where he published more than 300 stories and gained fame as America's favorite short Story writer. Porter married again in 1907, but after months of poor health, he died in New York City at the age of forty-eight in 1910. O. Henry's stories have been translated all over the world.

1. Why did the author write the passage?  
(A) because it is a tragic story of a gifted writer  
(B) to outline the career of a famous American  
(C) because of his fame as America's favorite short story writer  
(D) to outline the influences on O. Henry's writing
2. According to the passage, Porter's Father was  
(A) responsible for his move to La Salle County in Texas  
(B) the person who gave him a life-long love of books  
(C) a medical doctor  
(D) a licensed pharmacist
3. The word "allegedly" in line 9 is closest in meaning to  
(A) supposedly                      (B) reportedly                      (C) wrongly                      (D) mistakenly
4. Which of the following is true, according to the passage?  
(A) both of Porter's wives died before he died  
(B) Porter left school at 15 to become a pharmacist  
(C) Porter wrote a column for the Houston Daily Post called "Rolling Stone"  
(D) the first recorded use of his pseudonym was in Austin
5. The word "venture" in line 12 is closest in meaning to  
(A) challenging experiment                      (B) bold initiative  
(C) speculative action                      (D) sorry experience

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6. The word “subsequent in line 14 is closest in meaning to  
(A) resulting (B) police (C) alleged (D) official
7. Porter lost all of the following when he went to prison EXCEPT his  
(A) home (B) wife (C) job (D) books
8. According to the author, how many stories did Porter write while in prison for three years?  
(A) more than 300 (B) 35 (C) at least 12 (D) over 20
9. The author implies which of the following is true?  
(A) Porter would probably have written less stories if he had not been in prison for three years  
(B) Porter was in poor health throughout his life  
(C) O. Henry is as popular in many other countries as he is in America  
(D) Porter’s wife might have lived longer if he had not left her in Austin when he fled.
10. Where in the passage does the author mention a habit of Porter that was to become very useful for him later?  
(A) lines 6-10 (B) lines 11-15 (C) lines 16-20 (D) lines 21-25

**Questions 11-21**

Alexis de Tocqueville, the French political scientist, historian, philosopher and politician, is most famous for a four-volume book he wrote called “Democracy in America”. He came to America in 1831 to study the American form of democracy and what it might mean to the rest of the world. After a visit of only nine months, he wrote a remarkable book which is regarded as a classic. De Tocqueville had unusual powers of observation. He described not only the democratic system of government and how it operated, but also its effect on how Americans think, feel, and act. Many scholars believe he had a deeper understanding of traditional American beliefs and values than anyone else who has written about the United States. What is so remarkable is that many of these traits which he observed nearly 200 years ago, are still visible and meaningful today. His observations are also important because the timing of his visit, the 1830s, was before America was industrialized. This was the era of the small farmer, the small businessman, and the settling of the western frontier. It was the period of history when the traditional values of the new country were newly established. In just a generation, some 40 years since the adoption of the U.S. Constitution, the new form of government had already produced a society of people with unique values. He was, however, a neutral observer and saw both the good and bad sides of these qualities.

The first part of “Democracy in America” was written in 1831-32 and published in 1835. A highly positive and optimistic account of American government and society, the book was very well received. He attempted to get a glimpse of the essence of American society, all the while promoting his own philosophy: the equaling of the classes and the inevitable depth of aristocratic privilege. The rest of the book he labored on for four years, and in 1840 the second part was published. This was substantially more pessimistic than the first, warning of the dangers despotism and governmental centralization, and applying his ideas and criticisms more directly to France. As a result, it was not received as well as the first part, except in England where it was acclaimed highly.

11. What is the passage primarily about?  
 (A) Alexis de Tocqueville  
 (B) "Democracy in America"  
 (C) the progress achieved in America within about 40 years after adoption of the U.S. Constitution  
 (D) the impact of the book "Democracy in America"
12. All of the following fields of professional interest and activity are used to describe de Tocqueville EXCEPT  
 (A) philosopher (B) author (C) political scientist (D) politician
13. According to the passage, when did de Tocqueville visit America  
 (A) 1830s (B) 1831 (C) 1831-32 (D) 1835
14. The phrase "these traits" in lines 9-10 refers to  
 (A) observations (B) how Americans think, feel, and act  
 (C) traditional American beliefs and values (D) visible and meaningful observations
15. What in the passage is mentioned as being truly remarkable?  
 (A) many of his observations are still visible and meaningful today  
 (B) the book was so detailed and thorough after only such a comparatively short visit  
 (C) that the second volume should be so pessimistic in comparison with the first  
 (D) de Tocqueville's powers of observation
16. The word "unique" in line 16 is closest in meaning to  
 (A) clearly identifiable (B) outstanding  
 (C) unmatched (D) positive
17. The word "neutral" in line 16 is closest in meaning to  
 (A) impartial (B) careful (C) important (D) thorough
18. Which of the following can be inferred from the passage?  
 (A) the English don't like the French  
 (B) the book was most important because it was the first time that American values had been clearly documented  
 (C) de Tocqueville was a slow writer  
 (D) de Tocqueville was primarily motivated by an interest in his own country
19. The word "glimpse" in line 20 is closest in meaning to  
 (A) overview (B) glance  
 (C) brief understanding (D) quick conclusion
20. According to the passage, "Democracy in America" consisted of how many volumes?  
 (A) one (B) two (C) three (D) four
21. Which of the following is true, according to the passage?  
 (A) the visit lasted only five months  
 (B) the visit coincided with American industrialization  
 (C) the first part was published in 1835; the second part in 1840  
 (D) the second part was more optimistic than the first

**Questions 22-31**

The study of the astronomical practices, celestial lore, mythologies, religions and world-views of all ancient cultures is called archaeoastronomy. It is described, in essence, as the "anthropology of astronomy", to distinguish it from the "history of astronomy". Many

Line of the great monuments and ceremonial constructions of early civilizations were  
 (5) astronomically aligned, and two well-known ancient archaeological sites seem to have had an astronomical purpose. The Orion mystery, as it is dubbed, purports that the geometry and brightness of the stars in the Orion constellation are mirrored in the alignment and size of the great pyramids of Egypt. While this claim remains hypothetical, it is nevertheless clear that ancient Egyptians incorporated astronomy with architecture. In the  
 (10) Temple of Abu Simbel, for example, sunlight penetrates a sacred chamber to illuminate a statue of Ramses on October 18, which ushered in the start of the Egyptian civil year. Astronomy did not exist on its own, however, but as one limb of a larger body whose other limbs included agriculture and the after-life. In this sense, astronomy linked the two themes humans are most obsessed with: life and death.

(15) Around the same period, another monument was erected that combines religion, architecture and astronomy. Stonehenge was built in three separate stages, starting in approximately 3000 B.C. Mostly it remains a mystery, but two clues offer some enlightenment. One is that the megalithic arrangement is not random nor purely aesthetic but astronomical: It marks the solstice and lunar phases. The other is that archaeological  
 (20) excavations have revealed it was also used in religious ceremonies. Chinese records suggest their own astronomical observations dated from the same period; Indian sacred books point to earlier observations; and Babylonian clay tablets show Chaldean priests had been observing the sky (including the motion of the visible planets and of eclipses) shortly thereafter. But the earliest physical vestige of an observatory in fact, lies in  
 (25) southern Egypt. Surprisingly it is probably not the product of a Semitic (Syrian or Babylonian) peoples but rather sub-Saharan, as evidenced by analysis of a human jawbone found on site. The Nabta site is the African equivalent of Stonehenge except it predates it by some 1,500 years.

22. What does the passage mainly discuss?

- (A) the definition and some examples of archaeoastronomy
- (B) the possible astronomical significance of ancient monuments
- (C) the history of astronomy
- (D) the oldest known site possibly used for astronomy

23. The word "celestial" in line 1 could best be replaced by

- (A) ancient
- (B) historical
- (C) heavenly
- (D) scientific

24. According to the passage, archaeoastronomy

- (A) pre-dates astronomy
- (B) is the anthropology of astronomy
- (C) is also called the history of astronomy
- (D) is not a true science

25. Which of the following, according to the passage, is true about the great pyramids of Egypt?

- (A) they were built for purposes of astronomy
- (B) they mark the solstice and lunar phases
- (C) one of them contains a statue of Ramses in a sacred chamber
- (D) they are part of the Orion mystery

26. The word "ushered" in line 11 is closest in meaning to

- (A) brought                      (B) identified                      (C) marked                      (D) signaled
27. The word "illuminate" in line 11 is closest in meaning to  
 (A) light up                      (B) warm up                      (C) touch                      (D) explain
28. Where in the passage does the author make reference to the moon?  
 (A) lines 5-9                      (B) lines 10-14                      (C) lines 15-19                      (D) lines 20-24
29. The word "enlightenment" in line 18 is closest in meaning to  
 (A) awareness                      (B) hope                      (C) evidence                      (D) explanation
30. According to the passage, the earliest known site of an observatory is probably  
 (A) Semitic                      (B) Babylonian                      (C) Chaldean                      (D) Sub-Saharan
31. In line 27, the word "it" refers to which of the following?  
 (A) Stonehenge                      (B) the Nabta site                      (C) African                      (D) sub-Saharan

### Questions 32-39

In 1803 the United States negotiated the purchase of the Louisiana Territory from France for \$15 million. With a stroke of a pen America doubled in size, making it one of the largest nations in the world. The sale included over 600 million acres at a cost of less than 3 cents an acre in what today is the better part of 13 states between the Mississippi River and the Rocky Mountains. For President Thomas Jefferson it was a diplomatic and political triumph. In one fell swoop the purchase of Louisiana ended the threat of war with France and opened up the land west of the Mississippi to settlement. By any measure the purchase of Louisiana was the most important action of Jefferson's two terms as president. Jefferson knew that acquiring the very heart of the American continent would prove to be the key to the future of the United States.

Initially Jefferson sent his minister to France, Robert Livingston, offered Napoleon \$2 million for a small tract of land on the lower Mississippi. There, Americans could build their own seaport. Impatient at the lack of news, Jefferson sent James Monroe to Paris to offer \$10 million for New Orleans and West Florida. Almost at the same time, and unknown to Jefferson, France had offered all of Louisiana to Livingston for \$15 million. Though the transaction was quickly sealed, there were those who objected to the purchase on the grounds that the Constitution did not provide for purchasing territory. However, Jefferson temporarily set aside his idealism to tell his supporters in Congress that "what is practicable must often control what is pure theory." The majority agreed. Jefferson later admitted that he had stretched his power "till it cracked" in order to buy Louisiana, the largest single land purchase in American history.

32. What is the passage mainly about?  
 (A) Jefferson's most important action during two terms as President  
 (B) how America doubled in size overnight, through its largest single land purchase  
 (C) testing the United States Constitution  
 (D) Jefferson and his most important action of the Purchase of Louisiana
33. According to the passage, how much was paid for each acre of land  
 (A) less than 3 cents                      (B) 8 cents  
 (C) 15 million dollars                      (D) over 600 million dollars
34. The word "it" in line 6 refers to  
 (A) ending the threat of war with France                      (B) opening up land west of the Mississippi  
 (C) the sale                      (D) doubling the size of America overnight

**PRACTICE TEST 66**

35. The word “acquiring” in line 10 is closest in meaning to  
(A) going to                      (B) obtaining                      (C) abandoning                      (D) including
36. Which of the following, according to the passage, is NOT true  
(A) Jefferson acted outside his constitutional powers  
(B) Congress did not fully support Jefferson  
(C) Jefferson sent Robert Livingston to France with an offer for New Orleans and West Florida  
(D) America wanted to build its own seaport
37. The word “idealism” in line 20 is closest in meaning to  
(A) vision                      (B) principles                      (C) realism                      (D) philosophy
38. The phrase “pure theory” in line 22 is closest in meaning to  
(A) meant to be                      (B) rules that are meant to be broken  
(C) untested rules                      (D) the unworkable
39. According to the passage, the word “power” in line 23 refers to Jefferson using  
(A) the negotiations                      (B) constitutional power  
(C) his idealism                      (D) practical power

**Questions 40-50**

Exquisite patterns and surface ornamentation were an integral part of the aesthetics of the late Victorian era. In America, these developments were incorporated into the themes of national expositions and artistic movements, as cottage industries grew and productivity in the decorative arts flourished. The last three decades of the 19th century saw a change in sensibility that resulted in new stylistic approaches in American decorative arts, a departure from the previous era of Rococo and Renaissance Revival excess. Shapes became more angular, smoother and less flamboyant. The popular carvings and deep modeling of earlier years disappeared as ornamentation became more linear and lighter in appearance. Decoration focused on the surface with rich and elegant patterns adorning furniture, objects of every sort, and architectural and interior decorations. This artistic reawakening was prompted by the effects of the Industrial Revolution on contemporary design.

This new attitude, with its focus on ornament and the decorative, was later referred to as the Aesthetic Movement, but it also encompassed the early Arts and Crafts Movement as well. The purpose was to bring a refined sensibility and components of “good taste” to the domestic interior. Art and good taste not only denoted good character, but also could be used to induce proper moral conduct and actions, thereby contributing to the betterment of society. This placed a heavy burden on designers/decorators as well as on women as keepers of the home. Americans drew inspiration from the writing and work of English artists. This was a period of great eclecticism. Tastes ranged from the Modern Gothic through the Persian, Greek and Islamic, to the Japanese, and with more than a nod to Mother Nature. Yet, regardless of the influence, surface pattern reigned supreme. English reformers dictated that ornament should be derived from nature, and pattern should be flat and stylized. Forms were accentuated by colored outlines, or often with touches of gold. The emphasis was on art and on development of a refined sensibility. It was all a matter of taste.

40. What is the main topic of the passage?  
 (A) defining the "Aesthetic Movement"  
 (B) decorative arts in late 19th century America  
 (C) English influences on American decorative arts in the late 19th century  
 (D) The change in tastes from "Rocco and Renaissance Revival" to the 'Aesthetic Movement' in late 19th century America
41. The word "integral" in line 1 is closest in meaning to  
 (A) essential (B) additional (C) important (D) beautifying
42. According to the passage, during the Aesthetic Movement popular carvings and deep modeling of earlier years  
 (A) were popular (B) again became popular  
 (C) disappeared (D) defined good taste
43. The word "elegant" in line 9 is closest in meaning to  
 (A) beautiful (B) ornamental (C) colorful (D) refined
44. According to the passage, the purpose of the Aesthetic Movement was to  
 (A) induce proper moral conduct and actions  
 (B) define what was meant by good taste in the domestic interior  
 (C) encompass Arts and Crafts as well as ornament and decoration  
 (D) define good character and contribute to the betterment of society
45. The phrase "new attitude" in line 14 refers to  
 (A) including the early Arts and Craft Movement as well  
 (B) artistic reawakening  
 (C) the Industrial Revolution  
 (D) Rococo and Renaissance Revival
46. The word "denoted" in line 16 is closest in meaning to  
 (A) promoted (B) facilitated (C) developed (D) signified
47. Where in the passage does the author mention the influence of art and good taste on morals?  
 (A) lines 5-9 (B) lines 10-14 (C) lines 15-20 (D) lines 20-24
48. Which of the following can be inferred from the passage?  
 (A) designers and decorators were mainly responsible for starting the new attitude  
 (B) the movement led to a higher standard of morality in late 19th century America  
 (C) the Americans considered the English to be the arbiters of good taste  
 (D) women, as keepers of the home, faced a heavy burden
49. According to the passage, which of the following remained most important, regardless of influences from other countries?  
 (A) surface pattern (B) English opinions  
 (C) good taste (D) Proper moral conduct and actions
50. Which of the following is NOT mentioned as a feature of the Aesthetic Movement?  
 (A) shapes became less flamboyant (B) ornamentation became lighter in appearance  
 (C) forms were accentuated by colored lines (D) decorations focused mainly on furniture





# ANSWER KEY

## PRACTICE TEST 47

ACBACD CCBADB BADCC BABADA CDADBCC

## PRACTICE TEST 48

CAAAADC CCCDDA CBBAAC DBBDC DCABBB

## PRACTICE TEST 49

CDACAB BDCBB BCADD CCAABBC CBBDCAD

## PRACTICE TEST 50

CDDCAAB BCADBBC DBABDC ACBDAB CADC

## PRACTICE TEST 51

DCBD DCACAB ABABC DBADCCCB

## PRACTICE TEST 52

BACADB AADCD ABBCCDA DAABBC

## PRACTICE TEST 53

BDCDCDB BAAACBD DCCDA

## PRACTICE TEST 54

CBBCDC BCABDADD ACACABDA ABDDCBCA

## PRACTICE TEST 55

DCDABBC ABADC CBDABAB ACDABD CBBAB

## PRACTICE TEST 56

ABDC CADAAB ABCCBC ABACDB ABDCCCB

## PRACTICE TEST 57

ADBBC DBDCAC CBADBAD CBDAB AACDBCA

## PRACTICE TEST 58

CDACBCB ADBAC CBAC ABCAADD CBDDABC

## PRACTICE TEST 59

BDABADDB ACCDAA BDCCBA CABBCDA DAB

## PRACTICE TEST 60

ABBBDD DBCCBDB ADBDBC CBACDCBA DBD

## PRACTICE TEST 61

CCADAB CDACCAB BACBA ACADDBA ABDAA

## PRACTICE TEST 62

CBBCD BDCAA DBBCC BADBB ADCDC CDABB CBDAB CADCD BBADC DCBCB

## PRACTICE TEST 63

BDCAA BDBCD DCABA DDBBC CDBDA CABDD CDBBB DDCCB ACDBD DABAB

## PRACTICE TEST 64

BDBCA CCDDDB ACCAD DACBD ADCAC BBDAB ACBAC DBCBA CADD DDCB

## PRACTICE TEST 65

DCBBC CCDAC DCADB BDCDA DADDA BCCDA BCBCA BDDCA DBDCB BBCBB

## PRACTICE TEST 66

BCADC ADCCA BBBCA CABBD CBCBC AACAD BDACB CBCBB ACABB DCDAD