TOEFL Reading

Test 1

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 : 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.

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.

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 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.

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 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.

Question 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.

Line
(5)
(10)

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.

(15)
(20)

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.

(25)

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 warn 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 tinplate. 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 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 time. "Urban population" was defined as persons living in towns of 8,000 inhabitants 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 *un*incorporated 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).

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 be metropolitan in character and economically and socially integrated with the county 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.

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 "towns" 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) making 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?
(A) Lines 4-5 (B) Line 7-8 (C) Line 21-23(D) Line 27-29

Test 2

Question 1 - 8

It is commonly believed in the United States that school is where people go 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
Line 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 learning that takes place in schools and the whole universe of informal learning. The agents of education can range from a revered grandparent to the people debating politics on the radio, from a
(10) child to a distinguished scientist. Whereas schooling has a certain predictability, education quite often produces surprises. A chance conversation with a 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
(15) 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
(20) are to be learned, whether they are the alphabet or an understanding of the workings of government, have usually been limited by the boundaries of the subject being taught.

For example, high school 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
(25) formalized process of schooling.

1. 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.

2. The word "bounds" in line 6 is closest in meaning to
(A) rules
(B) experience
(C) limits
(D) exceptions

3. The word "chance" in line 11 is closest in meaning to
(A) unplanned
(B) unusual
(C) lengthy
(D) lively

4. The word "an integral" in line 15 is closest in meaning to
(A) an equitable
(B) a profitable
(C) a pleasant
(D) an essential

5. The word "they" in line 20 refers to
(A) slices of reality
(B) similar textbooks
(C) boundaries
(D) seats

6. The phrase "For example," line 22, introduces a sentence that gives examples of
(A) similar textbooks
(B) the results of schooling
(C) the workings of a government
(D) the boundaries of classroom subjects

7. The passage supports which of the followng 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.

8. 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

Question 9-17

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 aluminum and sodium, while the mantle contains some heavier elements, like iron and 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 them.

With an understanding 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 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 Antarctica — 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 understanding 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, geologists could not explain why active volcanoes and strong earthquakes were concentrated in that region. The theory of plate tectonics gave them an answer.

9. With which of the following topics 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

10. According to the passage, the lithospheric plates are given support by the
(A) upper mantle
(B) ocean floor
(C) crust
(D) asthenosphere

11. 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

12. The word "one" in line 16 refers to
(A) movements
(B) masses
(C) sea
(D) depression

13. 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 each other

14. The word "carry" in line 20 could best be replaced by
(A) damage
(B) squeeze

(C) connect
(D) support

15. In line 27, the word “concentrated” is closest in meaning to which of the following?
(A) Allowed
(B) Clustered
(C) Exploded
(D) Strengthened

16. 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.

17. 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

Question18-27

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, banking, mining, and transportation firms and participated in the

Line construction of various internal improvements such as canals, turnpikes, and railroads.
(5) The states encouraged internal improvements in two distinct ways ; first, by actually establishing state companies to build such improvement ; 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
(10) programs. Licensing targets reflected both similarities in and differences between the

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.

18. What does the passage mainly discuss?
(A) States's 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

19. The word "effect" in line 2 is closest in meaning to
(A) value
(B) argument
(C) influence
(D) restraint

20. 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

21. The word "distinct" in line 5 is closest in meaning to
(A) separate
(B) innovative
(C) alarming
(D) provocative

22. 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

23. 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

24. The word "setting" in line 17 is closest in meaning to
(A) discussing
(B) analyzing
(C) establishing
(D) avoiding

25. The word "ends" in line 20 is closest in meaning to
(A) benefits
(B) decisions
(C) services
(D) goals

26. 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.

27. 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

Question 28-37

Life originated in the early seas less than a billion years after 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 evolutionary challenge as was the genesis of life.

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 animals. 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 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-eaters. 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 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 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 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.

28. The word “drastic” in line 5 is closest in meaning to
(A) widespread
(B) radical
(C) progressive
(D) risky

29. 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

30. 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.

31. The word “extracted” in line 18 is closest in meaning to
(A) located
(B) preserved
(C) removed
(D) studied

32. 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.

33. The word “instances” in line 21 is closest in meaning to
(A) methods
(B) processes
(C) cases
(D) reasons

34. The word “they” in line 22 refers to
(A) rocks
(B) shores
(C) oceans
(D) specimens

35. The word “entombed” in lime 22 is closest in meaning to
(A) crushed
(B) trapped
(C) produced
(D) excavated

36. 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.

37. 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 38-50

What we today call American 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 who 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's population had increased roughly five times, 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. Once again an original portrait became a luxury, commissioned by the wealthy and executed by the
(20) professional.

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
(25) 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.

38. 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

39. The word “marked” in line 5 is closest in meaning to
(A) pronounced
(B) fortunate
(C) understandable
(D) mysterious

40. 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

41. The word “this” in line 9 refer to
(A) a strong craft tradition
(B) American folk art
(C) New England
(D) western New York

42. How much did the population of the 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.

43. The phrase “ushering in” in line 17 is closest in meaning to
(A) beginning (B) demanding
(C) publishing (D) increasing

44. 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

45. According to the passage, which of the following contributed to a decline in the demand for painted portrait?
(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

46. The word “executed” in line 19 is closest in meaning to
(A) sold (B) requested
(C) admired (D) created

47. 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

48. The word "sketching" in line 25 is closest in meaning to
(A) drawing (B) hiring
(C) helping (D) discussing

49. Where in the passage does the author provide a definition?
(A) Lines 3-6 (B) Lines 8-10
(C) Lines 13-15 (D) Lines 21-23

50. The phrase "worth their while" in line 26 is closest in meaning to
(A) essential (B) educational
(C) profitable (D) pleasurable

Test 3

Questions 1-10

Around the year 1500, hunting people occupied the entire northern third of North America. They lived well from the animals with whom they shared these lands. Hunters of sea mammals had colonized the Arctic coasts of Canada and Greenland between four and five thousand years before. Land-hunting people had lived throughout much of the northern interior for at least 12,000 years.

Northern North America is part of a larger circumpolar ecological domain that continues across the narrow Bering Strait into Siberia and northern Europe. The overall circumpolar environment in the 1500's was not very different from the environment of the present. This vast landmass had a continental climate and was dominated by cold arctic air throughout a long winter and spring season. Summer temperature ranged from near freezing to the mid-20's Celsius, while winter temperature were often as low as 40 degrees below zero Celsius.

Geographers divide the overall circumpolar domain into two zones, the Arctic and, below it, the Subarctic. They refer to the landforms of these areas as tundra and taiga, respectively.

Temperatures in the northern lands were below freezing for eight or nine months of the year. Subsurface soil in the Arctic's tundra remained permanently frozen. Even when summer temperatures were above freezing and the top inches of earth became saturated with water, the soil below remained frozen into a permafrost, as hard as rock. When water flowed upon the surface of permanently frozen tundra, it made overland travel extremely difficult. Summer travel in the boggy lands, or muskeg country, of the Subarctic's taiga was also slow and arduous. Tracking animals was more difficult than it was during the winter when the swampy ground was frozen solid and covered with snow. In both tundra and taiga, hordes of mosquitoes and biting flies bred in the standing pools of water. Clothing lost its thermal efficiency when it became damp. Northern people looked forward to the turn of the season to bring the easier traveling conditions associated with cold weather. In the Arctic, they could haul food and supplies by dogsled while in the Subarctic, people could travel quickly and efficiently by snowshoes and toboggan.

1. What does the passage mainly discuss?
(A) The hunting people of North America
(B) The circumpolar environment of the sixteenth century
(C) Animals that inhabit the Arctic coast
(D) The geography of Canada and Greenland

2. The word “domain” in line 6 is closest in meaning to
(A) temperature
(B) period
(C) region
(D) process

3. Which of the following terms is used to describe the landforms of the Arctic region?
(A) Subarctic
(B) Taiga
(C) Tundra
(D) Muskeg

4. For how many months of the year were temperatures below freezing in the circumpolar region?
(A) 4-5 months (B) 6 months
(C) 8-9 months (D) 12 months

5. The word “saturated” in line 19 is closest in meaning to
(A) enriched (B) dissolved
(C) removed (D) soaked

6. The word “arduous” in line 22 is closest in meaning to
(A) humid (B) difficult
(C) indirect (D) unnecessary

7. The word “standing” in line 25 is closest in meaning to
(A) not flowing (B) very deep
(C) numerous (D) contaminated

8. All of the following are mentioned as having made travel in the summer difficult EXCEPT
(A) insects (B) wet clothing
(C) swampy lands (D) lack of supplies

9. The subsurface soil in the Arctic's tundra is most comparable to which of the following?

(A) Cement
(B) A bog
(C) A pond
(D) Sand

10. Where in the passage does the author mention a means by which people traveled in the northern lands?

(A) Lines 2-4
(B) Lines 6-7
(C) Lines 20-21
(D) Lines 27-29

Question 11-20

Social parasitism involves one species relying on another to raise its young. Among vertebrates, the best known social parasites are such birds as cuckoos and cowbirds; the female lays egg in a nest belonging to another species and leaves it for the host to rear.

Line

(5) The dulotic species of ants, however, are the supreme social parasites. Consider, for example, the unusual behavior of ants belonging to the genus Polyergus. All species of this ant have lost the ability to care for themselves. The workers do not forage for food, feed their brood or queen, or even clean their own nest. To compensate for these deficits, Polyergus has become specialized at obtaining workers from the related genus Formica to do these chores.

(10)

In a raid, several thousand Polyergus workers will travel up to 500 feet in search of a Formica nest, penetrate it, drive off the queen and her workers, capture the pupal brood, and transport it back to their nest. The captured brood is then reared by the resident Formica workers until the developing pupae emerge to add to the Formica population, which maintains the mixed-species nest. The Formica workers forage for food and give it to colony members of both species. They also remove wastes and excavate new chambers as the population increases.

(15)

The true extent of the Polyergus ants' dependence on the Formica becomes apparent when the worker population grows too large for existing nest. Formica scouts locate a new nesting site, return to the mixed-species colony, and recruit additional Formica nest mates. During a period that may last seven days, the Formica workers carry to the new nest all the Polyergus eggs, larvae, and pupae, every Polyergus adult, and even the Polyergus queen.

(20)

Of the approximately 8,000 species of ants in the world, all 5 species of Polyergus and some 200 species in other genera have evolved some degree of parasitic relationship with other ants.

(25)

11. Which of the following statements best represents the main idea of the passage?

(A) Ants belonging to the genus Formica are incapable of performing certain tasks.

(B) The genus Polyergus is quite similar to the genus Formica.
(C) Ants belonging to the genus Polyergus have an unusual relationship with ants belonging to the genus Formica.
(D) Poltergus ants frequently leave their nests to build new colonies.

12. The word “raise” in line 1 is closest in meaning to
(A) rear
(B) lift
(C) collect
(D) increase

13. The author mentions cuckoos and cowbirds in line 2 because they
(A) share their nests with each other
(B) are closely related species
(C) raise the young of their birds
(D) are social parasites

14. The word “it” in line 3 refers to
(A) species
(B) nest
(C) egg
(D) female

15. What does the author mean by stating that “The dulotic species of ants...are the supreme social parasites” (line5) ?
(A) The Polyergus are more highly developed than the Formica.
(B) The Formica have developed specialized roles.
(C) The Polyergus are heavily dependent on the Formica.
(D) The Formica do not reproduce rapidly enough to care for themselves.

16. Which of the following is a task that an ant of the genus Polyergus might do?
(A) Look for food.
(B) Raid another nest.
(C) Care for the young.
(D) Clean its own nest.

17. The word “excavate” in line 17 is closest in meaning to
(A) find
(B) clean
(C) repair
(D) dig

18. The word “recruit” in line 20 is closest in meaning to
(A) create
(B) enlist
(C) endure
(D) capture

19. What happens when a mixed colony of Polyergus and Formica ants becomes too large?
(A) The Polyergus workers enlarge the existing nest.
(B) The captured Formica workers return to their original nest.
(C) The Polyergus and the Formica build separate nests.
(D) The Polyergus and the Formica move to a new nest.

20. According to the information in the passage, all of the following terms refer to ants belonging to the genus Formica EXCEPT the
(A) dulotic species of ants (line 5)
(B) captured brood (line 13)
(C) developing pupae (line 14)
(D) worker population (line 19)

Question 21-30

The Winterthur Museum is a collection and a house. There are many museums devoted to the decorative arts and many house museums, but rarely in the United States is a great collection displayed in a great country house. Passing through successive generations of a single family, Winterthur has been a private estate for more than a century. Even after the extensive renovations made to it between 1929 and 1931, the house remained a family residence. This fact is of importance to the atmosphere and effect of the museum. The impression of a lived-in house is apparent to the visitor; the rooms look as if they were vacated only a short while ago — whether by the original owners of the furniture of the most recent residents of the house can be a matter of personal interpretation. Winterthur remains, then, a house in which a collection of furniture and architectural elements has been assembled. Like an English country house, it is an organic structure; the house, as well as the collection and manner of displaying it to the visitor, has changed over the years. The changes have coincided with developing concepts of the American arts, increased knowledge on the part of collectors and students, and a progression toward the achievement of a historical effect in period-room displays. The rooms at Winterthur have followed this current, yet still retained the character of a private house.

Line
(5)
(10)
(15)

The concept of a period room as a display technique has developed gradually over the years in an effort to present works of art in a context that would show them to grater effect and would give them more meaning for the viewer. Comparable to the habitat group in a natural history museum, the period room represents the decorative arts in a lively and interesting manner and provides an opportunity to assemble objects related by style, date, or place of manufacture.

(20)

21. What does the passage mainly discuss?
(A) The reason that Winterthur was redesigned
(B) Elements that make Winterthur an unusual museum
(C) How Winterthur compares to English country houses
(D) Historical furniture contained in Winterthur

22. The phrase “devoted to” in line 2 is closest in meaning to
(A) surrounded by
(B) specializing in
(C) successful with
(D) sentimental about

23. What happened at Winterthur between 1929 and 1931 ?
(A) The owners moved out.
(B) The house was repaired.
(C) The old furniture was replaced.
(D) The estate became a museum.

24. What does the author mean by stating “The impression of a lived-in house is apparent to the visitor” (line 7) ?
(A) Winterthur is very old.
(B) Few people visit Winterthur.
(C) Winterthur does not look like a typical museum.
(D) The furniture at Winterthur looks comfortable

25. The word “assembled” in line 11 is closest in meaning to
(A) summoned
(B) appreciated
(C) brought together
(D) fundamentally changed

26. The word “it” in line 12 refers to
(A) Winterthur
(B) collection
(C) English country house
(D) visitor

27. The word “developing” in line 14 is closest in meaning to
(A) traditional
(B) exhibiting
(C) informative
(D) evolving

28. According to the passage, objects in a period room are related by all of the following EXCEPT
(A) date
(B) style
(C) place of manufacture
(D) past ownership

29. What si the relationship between the two paragraphs in the passage?
(A) The second paragraph explains a term that was mentioned in the first paragraph.
(B) Each paragraph describes a dafferent approach to the display of

objects in a museum.
(C) The second paragraph of explains a philosophy art appreciation that contrasts with the philosophy explained in the first paragraph.
(D) Each paragraph describes a different historical period.

30. Where is the passage does the author explain why displays at Winterthur have changed?
(A) Lines 1-3
(B) Lines 5-6
(C) Lines 7-10
(D) Lines 13-16

Questions 31-40

The modern comic strip started out as ammunition in a newspaper war between giants of the American press in the late nineteenth century. The first full-color comic strip appeared January 1894 in the New York *World*, owned by Joseph Pulitzer. The first regular weekly full-color comic supplement, similar to today's Sunday funnies, appeared two years later, in William Randolph Hearst's rival New York paper, the *Morning Journal.*

Both were immensely popular, and publishers realized that supplementing the news with comic relief boosted the sale of papers. The *Morning Journal* started another feature in 1896, the "Yellow Kid," the first continuous comic character in the United States, whose creator, Richard Outcault, had been lured away from the *World* by the ambitious Hearst. The "Yellow Kid" was in many ways a pioneer. Its comic dialogue was the strictly urban farce that came to characterize later strips, and it introduced the speech ballon inside the strip, usually placed above the characters' heads.

The first strip to incorporate all the elements of later comics was Rudolph Dirks's "Katzenjammer Kids," based on Wilhelm Busch's *Max and Moritz*, a European satire of the nineteenth century. The "Kids" strip, first published in 1897, served as the prototype for future American strips. It contained not only speech balloons, but a continuous cast of characters, and was divided into small regular panels that did away with the larger panoramic scenes of most earlier comics.

Newspaper syndication played a major role in spreading the popularity of comic strips throughout the country. Though weekly colored comics came first, daily black-and-white strips were not far behind. The first appeared in the Chicago *American* in 1904. It was followed by many imitators, and by 1915 black-and-white comic strips had become a staple of daily newspapers around the country.

31. What does the passage mainly discuss?

(A) A comparison of two popular comic strips
(B) The differences between early and modern comic strips
(C) The effects of newspapers on comic strip stories
(D) Features of early comic strips in the United States

32. Why does the author mention Joseph Pulitzer and William Randolph Heart?
(A) They established New York's first newspaper.
(B) They published comic strips about the newspaper war.
(C) Their comic strips are still published today.
(D) They owned major competitive newspapers.

33. The passage suggests that comic strips were popular for which of the following reasons?
(A) They provided a break from serious news stories.
(B) Readers enjoyed the unusual drawings.
(C) Readers could identify with the characters
(D) They were about real-life situations.

34. To say that Richard Outcault had been "lured away from" the World by Heart (line10) means which of the following?
(A) Hearst convinced Outcault to leave the World.
(B) Hearst fired Outcault from the World.
(C) Hearst warned Outcault not to leave the World.
(D) Hearst wanted Outcault to work for the World.

35. The word "it" in line 12 refers to
(A) The "Yellow Kid"
(B) dialogue
(C) farce
(D) balloon

36. According to the passage, the "Yellow Kid" was the first comic strip to do all of the following EXCEPT
(A) feature the same character in each episode
(B) include dialogue inside a balloon
(C) appear in a Chicago newspaper
(D) characterize city life in a humorous way

37. The word "incorporate" in line 14 is closest in meaning to
(A) affect
(B) create
(C) combine
(D) mention

38. The word "prototype" in line 17 is closest in meaning to

(A) story
(B) humor
(C) drawing
(D) model

39. The word “staple” in line 24 is closest in meaning to
(A) regular feature
(B) popular edition
(C) new version
(D) huge success

40. In what order does the author discuss various comic strips in the passage?
(A) In alphabetical order by title
(B) In the order in which they were created
(C) According to the newspaper in which they appeared
(D) From most popular to least popular

Question 41-50

Every drop of water in the ocean, even in the deepest parts, responds to the forces that create the tides. No other force that affects the sea is so strong. Compared with the tides, the waves created by the wind are surface movements felt no more than a hundred fathoms below the surface. The currents also seldom involve more than the upper several hundred fathoms despite their impressive sweep.

The tides are a response of the waters of the ocean to the pull of the Moon and the more distant Sun. In theory, there is a gravitational attraction between the water and even the outermost star of the universe. In reality, however, the pull of remote stars is so slight as to be obliterated by the control of the Moon and, to a lesser extent, the Sun. Just as the Moon rises later each day by fifty minutes, on the average, so, in most places, the time of high tide is correspondingly later each day. And as the Moon waxes and wanes in its monthly cycle, so the height of the tide varies. The tidal movements are strongest when the Moon is a sliver in the sky, and when it is full. These are the highest flood tides and the lowest ebb tides of the lunar month and are called the spring tides. At these times the Sun, Moon, and Earth are nearly in line and the pull of the two heavenly bodies is added together to bring the water high on the beaches, to send its surf upward against the sea cliffs, and to draw a high tide into the harbors. Twice each month, at the quarters of the Moon, when the Sun, Moon, and Earth lie at the apexes of a triangular configuration and the pull of the Sun and Moon are opposed, the moderate tidal movements called neap tides occur. Then the difference between high and low water is less than at any other time during the month.

Line (5) (10) (15) (20)

41. What is the main point of the first paragraph?
(A) The waves created by ocean currents are very large.

(B) Despite the strength of the wind, it only moves surface water.
(C) Deep ocean water is seldom affected by forces that move water.
(D) The tides are the most powerful force to affect the movement of ocean water.

42. The word “felt” in line 3 is closest in meaning to
(A) based
(B) dropped
(C) detected
(D) explored

43. The words “In reality” in line 8 are closest in meaning to
(A) surprisingly
(B) actually
(C) characteristically
(D) similarly

44. It can be inferred from the passage that the most important factor in determining how much gravitational effect one object in space has on the tides is
(A) size
(B) distance
(C) temperature
(D) density

45. The word “correspondingly” in line 11 is closest in meaning to
(A) unpredictably
(B) interestingly
(C) similarly
(D) unusually

46. What is the cause of spring tides?
(A) Seasonal change in the weather
(B) The gravitational pull of the Sun and the Moon when nearly in line with the Earth
(C) The Earth's movement around the Sun
(D) The triangular arrangement of the Earth, Sun, and Moon

47. Which of the following pictures best represents the position of the Sun, Moon, and Earth during spring tides?

48. The word “configuration” in line 19 is closest in meaning to
(A) unit
(B) center
(C) surface
(D) arrangement

49. Neap tides occur when
(A) the Sun counteracts the Moon's gravitational attraction
(B) the Moon is full
(C) the Moon is farthest from the Sun
(D) waves created by the wind combine with the Moon's gravitational attraction

50. According to the passage, all of the following statements about tides are true EXCEPT:
(A) The time of high tide is later each day.
(B) Tides have a greater effect on the sea than waves do.
(C) The strongest tides occur at the quarters of the Moon.
(D) Neap tides are more moderate than spring tides.

Test 4

Questions 1-8

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. What is the main topic of the passage?
   (A) The size of early American hotels
   (B) The importance of hotels in American culture
   (C) How American hotels differed from European hotels
   (D) Why conventions are held at hotels

2. The word “bound” in line 1 is closest in meaning to
   (A) led
   (B) protected
   (C) tied
   (D) strengthened

3. 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

4. The word “assembling” in line 14 is closest in meaning to
   (A) announcing
   (B) motivating
   (C) gathering
   (D) contracting

5. The word “ones” in line 16 refers to
   (A) hotels
   (B) conventions
   (C) kinds
   (D) representatives

6. The word “it” in line 23 refers to
   (A) European inn
   (B) host
   (C) community
   (D) public

7. It can be inferred form the passage that early hotelkeepers in the United States were

(A) active politicians
(B) European immigrants
(C) professional builders
(D) influential citizen

8. 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 9-18

Beads were probably the first durable ornaments humans possessed, and the 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 changed their appearance. Thus, interest is imparted to the bead both by use and the effects of time.

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.

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.

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,
(25) and they can often be used to date archaeological sites and to designate the degree of mercantile, technological, and cultural sophistication.

9. 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

10. The word "adorned" in line 4 is closest in meaning to
(A) protected
(B) decorated
(C) purchased
(D) enjoyed

11. The word "attire" in line 9 is closest in meaning to
(A) ritual
(B) importance
(C) clothing
(D) history

12. All of the following are given as characteristic of collectible objects EXCEPT
(A) durability
(B) portability
(C) value
(D) scarcity

13. 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

14. The word "unravel" in line 16 is closest in meaning to
(A) communicate
(B) transport
(C) improve

(D) discover

15. The word “mundane” in line 16 is closest in meaning to
(A) carved
(B) beautiful
(C) ordinary
(D) heavy

16. 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

17. 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

18. 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 19-32

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 stilettolike bills to probe the deepest nectar-bearing flowers, and kiwis smell out earthworms thanks to nostrils located at the tip of their 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 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 open and discards the woody seed covering 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 securing seeds from large cones, while small-billed crossbills are more deft at
(20) 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.

19. 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

20. 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.

21. 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.

22. Crossbills are a type of
(A) shorebird (B) hummingbird
(C) kiwi (D) finch

23. Which of the following most closely resembles the bird described in lines 6-8?

24. The word "which" in line 12 refers to
(A) seed (B) bird
(C) force (D) bill

25. The word "gap" in line 13 is closest in meaning to
(A) opening (B) flower
(C) mouth (D) tree

26. The word "discards" in line 15 is closest in meaning to
(A) eats (B) breaks
(C) finds out (D) gets rid of

27. The word "others" in line 18 refers to
(A) bills (B) species
(C) seeds (D) cones

28. The word "deft" in line 19 is closest in meaning to
(A) hungry (B) skilled (C) tired (D) pleasant

29. The word "robust" in line 24 is closest in meaning to
(A) strong (B) colorful (C) unusual (D) sharp

30. 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.

31. 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

32. 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 33-39

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 Baltimore printer, who published the first official copies of the Declaration, the first 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 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 Jounal*, in 1773, her brother went broke trying to organize a colonial postal

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 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.

33. With which of the following subjects is the passage mainly concerned?
(A) The accomplishments of a female publisher
(B) The weaknesses of the newspaper industry
(C) The rights of a female publisher
(D) The publishing system in colonial America

34. 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

35. The word "heralded" in line 5 is closest in meaning to
(A) influenced
(B) announced
(C) rejected
(D) ignored

36. 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

37. The word "there" in line 17 refers to
(A) the colonies
(B) the print shop
(C) Baltimore
(D) Providence

38. 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

39. The word "position" in line 24 is closest in meaning to
(A) job
(B) election
(C) document
(D) location

Question 40-50

Galaxies are the major building blocks of the universe. A galaxy is a 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 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 1013 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
(20) 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 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.

40. The world "major" in line 1 is closest in meaning to
(A) intense
(B) principal
(C) huge
(D) unique

41. What does the second paragraph mainly discuss?
(A) The Milky Way
(B) Major categories of galaxies
(C) How elliptical galaxies are formed
(D) Difference between irregular and spiral galaxies

42. The word "which" in line 7 refers to
(A) dust
(B) gas
(C) pattern
(D) galaxy

43. 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

44. The word "symmetrical" in line 9 is closest in meaning to
(A) proportionally balanced
(B) commonly seen
(C) typical large
(D) steadily growing

45. The word "obvious" in line 10 is closest in meaning to

(A) discovered
(B) apparent
(C) understood
(D) simplistic

46. 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

47. 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.

48. What percentage of galaxies are irregular?
(A) 10%
(B) 25%
(C) 50%
(D) 75%

49. The word "they" in line 21 refers to
(A) intervals
(B) yardsticks
(C) distances
(D) galaxies

50. 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

Test 5

Question 1-8

A distinctively American architecture began with Frank Lloyd Wright, who had taken to heart the admonition that form should follow function, and who thought of buildings not as separate architectural entities but as parts of an organic whole that included the land, the community, and the society. In a very real way the houses of colonial New England and some of the southern plantations had been functional, but Wright was the first architect to make functionalism the authoritative principle for public as well as for domestic buildings.

As early as 1906 he built the Unity Temple in Oak Park, Illinois, the first of those churches that did so much to revolutionize ecclesiastical architecture in the United States. Thereafter he turned his genius to such miscellaneous structures as houses,

schools, office buildings, and factories, among them the famous Larkin Building in Buffalo, New York, and the Johnson Wax Company Building in Racine, Wisconsin.

1. What does the passage mainly discuss?
(A) The architecture of public buildings
(B) An architectural pioneer
(C) New England architecture
(D) principles of architecture

2. The phrase "taken to heart" in lines 1-2 is closest in meaning to which of the following?
(A) Taken seriously
(B) Criticized
(C) Memorized
(D) Taken offence

3. The word "admonition" in line 2 is closest in meaning to
(A) monition
(B) support
(C) discussion
(D) consideration

4. The word "entities" in line 3 is closest in meaning to
(A) principles
(B) existences
(C) subtractions
(D) properties

5. In what way did Wright's public buildings differ from most of those built by earlier architects?
(A) They were built on a larger scale.
(B) Their materials came from the southern United States.
(C) They looked more like private homes.
(D) Their designs were based on how they would be used.

6. The author mentions the Unity Temple because it
(A) was Wright's first building
(B) influenced the architecture of subsequent churches
(C) demonstrated traditional ecclesiastical architecture
(D) was the largest church Wright ever designed

7. Which of the following statements best reflects one of Frank Lloyd Wright's architectural principles?
(A) Beautiful design is more important than utility.
(B) Ecclesiastical architecture should be derived from traditional designs.

(C) A building should fit into its surroundings.
(D) The architecture of public buildings does not need to be revolutionary.

8. Which of the following is NOT mentioned as a type of structure Frank Lloyd Wright made ?
(A) houses
(B) factories
(C) southern plantations
(D) churches

Question 9-15

There are two basic types of glaciers, those that flow outward in all directions with little regard for any underlying terrain and those that are confined by terrain to a particular path.

Line (5) The first category of glaciers includes those massive blankets that cover whole continents, appropriately called ice sheets. There must be over 50,000 square kilometers of land covered with ice for the glacier to qualify as an ice sheet. When portions of an

ice sheet spread out over the ocean, they form ice shelves.

About 20,000 years ago the Cordilleran Ice Sheet covered nearly all the mountains in southern Alaska, western Canada, and the western United States. It was about 3 kilometers deep at its thickest point in northern Alberta. Now there are only two sheets left on Earth, those covering Greenland and Antarctica.

Any domelike body of ice that also flows out in all directions but covers less than 50,000 square kilometers is called an ice cap. Although ice caps are rare nowadays, there are a number in northeastern Canada, on Baffin Island, and on the Queen Elizabeth Islands.

The second category of glaciers includes those of a variety of shapes and sizes generally called mountain or alpine glaciers. Mountain glaciers are typically identified by the landform that controls their flow. One form of mountain glacier that resembles an ice cap in that it flows outward in several directions is called an ice field. The difference between an ice field and an ice cap is subtle. Essentially, the flow of an ice field is somewhat controlled by surrounding terrain and thus does not have the domelike shape of a cap. There are several ice fields in the Wrangell, St. Elias, and Chugach mountains of Alaska and northern British Columbia.

Less spectacular than large ice fields are the most common types of mountain glaciers : the cirque and valley glaciers. Cirque glaciers are found in depressions in the surface of the land and have a characteristic circular shape. The ice of valley glaciers, bound by terrain, flows down valleys, curves around their corners, and falls over cliffs.

9. What does the passage mainly discuss?
(A) Where major glaciers are located
(B) How glaciers shape the land
(C) How glaciers are formed
(D) The different kinds of glaciers

10. It can be inferred that ice sheets are so named for which of the following reasons?
(A) They are confined to mountain valleys.
(B) They cover large areas of land.
(C) They are thicker in some areas than in others.
(D) They have a characteristic circular shape.

11. According to the passage, where was the Cordilleran Ice Sheet thickest ?
(A) Alaska
(B) Greenland
(C) Alberta
(D) Antarctica

12. The word “rare” in line 13 is closest in meaning to
(A) small
(B) unusual
(C) valuable
(D) widespread

13. According to the passage (paragraph 5), ice fields resemble ice caps in which of the following ways?
(A) Their shape
(B) Their flow
(C) Their texture
(D) Their location

14. All of the following are alpine glaciers EXCEPT
(A) cirque glaciers
(B) ice caps
(C) valley glaciers
(D) ice fields

15. The word “depressions” in line 25 is closest in meaning to
(A) intrusion
(B) dejection
(C) concaves
(D) convexes

Question 16-22

Tools and hand bones excavated from the Swartkrans cave complex in South Africa suggest that a close relative of early humans known as *Australopithecus robustus* may have made and used primitive tools long before the species became extinct 1 million
Line years ago. It may even have made and used primitive tools long before humanity's

direct ancestor, *Homo habilis*, or "handy man," began doing so. *Homo habilis* and its successor, *Homo eretus*, coexisted with *Australopithecus robustus* on plains of South Africa for more than a million years.

The Swartkrans cave in South Africa has been under excavation since the 1940's. The earliest fossil-containing layers of sedimentary rock in the cave date from about 1.9 million years ago and contain extensive remains of animals, primitive tools, and two or more species of apelike hominids. The key recent discovery involved bones from the hand of *Australopithecus robustus*, the first time such bones have been found.

The most important feature of the *Australopithecus robustus* hand was the pollical distal thumb tip, the last bone in the thumb. The bone had an attachment point for a "uniquely human" muscle, the flexor pollicis longus, that had previously been found only in more recent ancestors. That muscle gave *Australopithecus robustus* an opposable thumb, a feature that would allow them to grip objects, including tools. The researchers also found primitive bone and stone implements, especially digging tools, in the same layers of sediments.

Australopithecus robustus were more heavily built — more "robust" in anthropological terms — than their successors. They had broad faces, heavy jaws, and massive crushing and grinding teeth that were used for eating hard fruits, seeds, and fibrous underground plant parts. They walked upright, which would have allowed them to carry and use tools.

Most experts had previously believed that *Home habilis* were able to supplant *Australopithecus robustus* because the former's ability to use tools gave them an innate superiority. The discovery that *Australopithecus robustus* also used tools means that researchers will have to seek other explanations for their extinction. Perhaps their reliance on naturally occurring plants led to their downfall as the climate became drier and cooler, or perhaps *Homo habilis*, with their bigger brains, were simply able to make more sophisticated tools.

16. It can be inferred from the first paragraph that all of the following may have made and used tools EXCEPT
(A) *Australopithecus robustus*
(B) *Home erectus*
(C) *Home habilis*
(D) *Australopithecus robustus'* ancestors

17. Which of the following does the author mention as the most important recent discovery made in the Swartkrans cave?
(A) Tools
(B) Teeth
(C) Plant fossils
(D) Hand bones

18. What does the third paragraph mainly discuss?
(A) Features of *Australopithecus robustus*' hand
(B) Purposes for which hominids used tools

(C) Methods used to determine the age of fossils
(D) Significant plant fossils found in layers of sediment

19. It can be inferred from the description in the last paragraph that *Australopithecus robustus* was so named because of the species'
(A) ancestors
(B) thumb
(C) build
(D) diet

20. The word “supplant” in line 24 is closest in meaning to
(A) exploit
(B) displace
(C) understand
(D) imitate

21. The word “them” in line 25 refers to
(A) tools
(B) *Homo habilis*
(C) *Australopithecus robustus*
(D) experts

22. The word “innate” in line 25 is closest in meaning to
(A) inherent
(B) incidental
(C) objective
(D) irrelevant

23. What does the author suggest is unclear about *Australopithecus robustus*?
(A) whether they used tools
(B) what they most likely ate
(C) whether they are closely related to humans
(D) why they became extinct

Question 24-29

The first two decades of this century were dominated by the microbe hunters. These

hunters had tracked down one after another of the microbes responsible for the most dreaded scourges of many centuries ; tuberculosis, cholera, diphtheria. But there remained

Line some terrible diseases for which no microbe could be incriminated : scurvy, pellagra,
(5) rickets, beriberi. Then it was discovered that these diseases were caused by the lack of vitamins, a trace substance in the diet. The diseases could be prevented or cured by consuming foods that contained the vitamins. And so in the decades of the 1920's and 1930's, nutrition became a science and the vitamin hunters replaced the microbe hunters.

In the 1940's and 1950's, biochemists strived to learn why each of the vitamins was
(10) essential for health. They discovered that key enzymes in metabolism depend on one or another of the vitamins as coenzymes to perform the chemistry that provides cells with energy for growth and function. Now, these enzymes hunters occupied center stage.

You are aware that the enzyme hunters have been replaced by a new breed of hunters who are tracking genes — the blueprints for each of the enzymes — and are discovering

(15) the defective genes that cause inherited diseases — diabetes, cystic fibrosis. These gene hunters, or genetic engineers, use recombinant DNA technology to identify and clone genes and introduce them into bacterial cells and plants to create factories for the massive production of hormones and vaccines for medicine and for better crops for agriculture. Biotechnology has become a multibillion-dollar industry.

(20) In view of the inexorable progress in science, we can expect that the gene hunters will be replaced in the spotlight. When and by whom? Which kind of hunter will dominate the scene in the last decade of our waning century and in the early decades of the next ? I wonder whether the hunters who will occupy the spotlight will be neurobiologists who apply the techniques of the enzyme and gene hunters to the functions of the brain.

(25) What to call them? The head hunters. I will return to them later.

24. What is the main topic of the passage?
(A) The microbe hunters
(B) The potential of genetic engineering
(C) The progress of modern medical research
(D) The discovery of enzymes

25. Which of the following can be cured by a change in diet?
(A) Tuberculosis
(B) Cholera
(C) Cystic fibrosis
(D) Pellagra

26. How do vitamins influence health?
(A) They are necessary for some enzymes to function.
(B) They protect the body from microbes.
(C) They keep food from spoiling.
(D) They are broken down by cells to produce energy.

27. In the third paragraph, the author compares cells that have been genetically altered by biotechnicians to
(A) gardens
(B) factories
(C) hunters
(D) spotlights

28. The phrase “occupy the spotlight” in line 23 is closest in meaning to
(A) receive the most attention
(B) go the furthest
(C) conquer territory
(D) lighten the load

29. The author implies that the most important medical research topic of the future will be
(A) the functions of the brain
(B) inherited diseases
(C) the operation of vitamins
(D) the structure of genes

Question 30-35

In the mid-nineteenth century, the United States had tremendous natural resources that could be exploited in order to develop heavy industry. Most of the raw materials that are valuable in the manufacture of machinery, transportation facilities, and consumer goods lay ready to be worked into wealth. Iron, coal, and oil — the basic ingredients of industrial growth — were plentiful and needed only the application of technical expertise, organizational skill, and labor.

One crucial development in this movement toward industrialization was the growth of the railroads. The railway network expanded rapidly until the railroad map of the United States looked like a spider's web, with the steel filaments connecting all important sources of raw materials, their places of manufacture, and their centers of distribution. The railroads contributed to the industrial growth not only by connecting these major centers, but also by themselves consuming enormous amounts of fuel, iron, and coal.

Many factors influenced emerging modes of production. For example, machine tools, the tools used to make goods, were steadily improved in the latter part of the nineteenth century — always with an eye to speedier production and lower unit costs. The products of the factories were rapidly absorbed by the growing cities that sheltered the workers and the distributors. The increased urban population was nourished by the increased farm production that, in turn, was made more productive by the use of the new farm machinery. American agricultural production kept up with the urban demand and still had surpluses for sale to the industrial centers of Europe.

The labor that ran the factories and built the railways was recruited in part from American farm areas where people were being displaced by farm machinery, in part from Asia, and in part from Europe. Europe now began to send tides of immigrants from eastern and southern Europe — most of whom were originally poor farmers but who settled in American industrial cities. The money to finance this tremendous expansion of the American economy still came from European financiers for the most part, but the Americans were approaching the day when their expansion could be financed in their own "money market"

30. What does the passage mainly discuss?
(A) The history of railroads in the United States
(B) The major United States industrial centers
(C) Factors that affected industrialization in the United States
(D) The role of agriculture in the nineteenth century

31. Why does the author mention "a spider's web" in line 9?
(A) To emphasize the railroad's consumption of oil and coal
(B) To describe the complex structure of the railway system
(C) To explain the problems brought on by railway expansion
(D) To describe the difficulties involved in the distribution of raw materials

32. The word “themselves” in line 12 refers to
(A) sources
(B) centers
(C) railroads
(D) places

33. According to the passage, what was one effect of the improvement of machine tools?
(A) Lower manufacturing costs
(B) Better distribution of goods
(C) More efficient transportation of natural resources
(D) A reduction in industrial jobs

34. Which of the following is NOT true of United States farmers in the nineteenth century?
(A) They lost some jobs because of mechanization
(B) They were unable to produce sufficient food for urban areas.
(C) They raised their productivity by using new machinery.
(D) They sold food to European countries

35. The word “ran” in line 21 is closest in meaning to
(A) operated
(B) hurried
(C) constructed
(D) owned

Question 36-44

The concept of obtaining fresh water from iceberg 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. **<A>**

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. **<B>**

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. **<C>**

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. **<D>**

36. 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

37. The word “arid” in line 1 is closest in meaning to
(A) anhydrous
(B) fruitful
(C) remote
(D) distant

38. 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

39. According to the author, most of the world's fresh water is to be found in
(A) oceans
(B) rivers
(C) glaciers
(D) reservoirs

40. The word “currents” in line 14 is closest in meaning to
(A) pulls
(B) waves
(C) weather
(D) flows of water

41. How are icebergs formed?
(A) They break off from glaciers
(B) Seawater freezes
(C) Rivers freeze
(D) Small pieces of floating ice converge

42. 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.

43. Which of the following is the best place where the sentence
"To corral them and steer them to parts of the world where they are needed would not be too difficult."
will most properly fit ?
(A) **<A>**

(B) <**B**>
(C) <**C**>
(D) <**D**>

44. The word "that" in the last line refers to
(A) the volume
(B) the water
(C) the iceberg
(D) the towing

Question 45-50

Surrounding Alaska on all but one side are two oceans and a vast sea, giving this state the longest coastline in the United States. In fact, if the coastlines of all of its peninsulas and islands are considered, Alaska has a longer coastline, 33,904 miles (54,563 kilometers), than all the other 49 states together.

Most of the state lies on a peninsula, bounded by the Arctic Ocean to the north, the Bering Sea to the west, and the Pacific Ocean on the southwest, south, and southeast. This peninsula, stretching away from the rest of North America, forms the northwest corner of the continent.

One of the world's largest peninsulas, it is partly shared with Canada on the east.

The seas indent the shores of the main peninsula to form other peninsulas that contribute some of the most outstanding features to Alaska's outline. Most notable of these is the Alaska Peninsula. The peninsula itself is 550 miles (885 kilometers) long, before the spectacular chain of islands reaches toward Asia.

Another of Alaska's large peninsulas is Seward, in which a number of smaller eastern states could be swallowed up. The Kenai Peninsula, less extensive than Seward, is about the size of the state of Maryland.

Part of Alaska's ocean heritage, many islands lie along the fringes of the state. Much of southeastern Alaska is made up of the Alexander Archipelago of 1100 islands, including Baranof, Kuiu, and Admiralty. Continuing up the coast are the islands of Prince William Sound. The Aleutian Islands pursue their bleak and windswept course in a long arc that *(20)* encloses the Bering Sea. Included in the Aleutian chain are whole archipelagoes, such as the Fox, Near, and Rat islands.

45. What is the main topic of the passage?
(A) The geography of the western United States
(B) The coastline of North America
(C) The territory that makes up Alaska
(D) The countries that border Alaska

46. The word "its" in line 2 refers to
(A) sea
(B) coastline
(C) Alaska
(D) peninsula

47. Alaska is bordered on the southwest by
(A) the Pacific Ocean
(B) the Arctic Ocean
(C) the Bering Sea
(D) Canada

48. Why does the author mention Maryland in line 15 ?
(A) To show another state that has a peninsula
(B) To compare the coastline of Alaska with that of Maryland
(C) To contrast the weather patterns in two states
(D) To illustrate a point about the size of one of Alaska's peninsulas

49. Kuiu is the name of
(A) an ocean
(B) an island
(C) a peninsula
(D) a country

50. The word "pursue" in line 19 is closest in meaning to
(A) follow
(B) direct
(C) divide
(D) slide

Test 6

Questions 1-10

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
Line waters averaging over 3,600 meters deep. Totally without light and subjected to intense
(5) 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
(10) 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.

(15) 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 sample have allowed geologists to reconstruct what the planet looked like hundreds of millions of years ago and to *(20)* 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 *(25)* 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. What is the main topic of the passage?
   (A) Marine life deep in the ocean
   (B) The Earth's climate millions of years ago
   (C) The first detailed study of the bottom of the ocean
   (D) Geologists' predictions for the future environment of the Earth

2. 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

3. The word "inaccessible" in line 3 is closest in meaning to
   (A) unrecognizable
   (B) unreachable
   (C) unusable
   (D) unsafe

4. 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

5. 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.

6. The word "extracting" in line 13 is closest in meaning to
(A) breaking
(B) locating
(C) removing
(D) analyzing

7. The Deep Sea Drilling Project was signigicant 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

8. The word "strength" in line 21 is closest in meaning to
(A) basis
(B) purpose
(C) discovery
(D) endurance

9. The word "they" in line 26 refers to
(A) years
(B) climates
(C) sediments
(D) cores

10. 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 by scientists.
(C) Information was revealed about the Earth's past climatic changes.
(D) Geologists observed forms of marine life never before seen.

Questions 11-22

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
Line mark. Most of this surging growth came from natural increase. The depression of the
(5) 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 woman 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.

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 of the children who were born during the period of the high birth rate prior to 1957.

11. 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

12. 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

13. The word "five" in line 3 refers to
(A) Canadians
(B) years
(C) decades
(D) marriages

14. The word "surging" in line 4 is closest in meaning to
(A) new (B) extra
(C) accelerating (D) surprising

15. 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

16. The word "trend" in line 11 is closest in meaning to
(A) tendency

(B) aim
(C) growth
(D) directive

17. The word "peak" in line 14 is closest in meaning to
(A) pointed
(B) dismal
(C) mountain
(D) maximum

18. When was the birth rate in Canada at its lowest postwar level?
(A) 1966
(B) 1957
(C) 1956
(D) 1951

19. 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

20. 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

21. The word "It" in line 25 refers to
(A) horizon
(B) population wave
(C) nine percent
(D) first half

22. The phrase "prior to" in line 26 is closest in meaning to
(A) behind
(B) since
(C) during
(D) preceding

Questions 23-31

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.
Line (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 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.

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.

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.

23. The word "Advocates" in line 3 is closest in meaning to which of the following?
(A) Proponents
(B) Merchants
(C) Inspectors
(D) Consumers

24. In line 4, the word "others" refers to
(A) advantages
(B) advocates
(C) organic foods
(D) products

25. 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

26. According to the first paragraph, which of the following is true about the term "organic food"?
(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.

27. The word "unsubstantiated" in line 15 is closest in meaning to
(A) unbelievable
(B) uncontested
(C) unpopular

(D) unverified

28. The word "maintain" in line 20 is closest in meaning to
(A) improve
(B) monitor
(C) preserve
(D) restore

29. 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

30. 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

31. 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

Questions 32-41

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
Line the natural forces of the world, even the seasonal changes, as unpredictable, and they
(5) 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.

(10) 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,

(15) and, since considerable importance was attached to avoiding mistakes in the enactment of rites, religious leaders usually assumed that task. Wearing mask 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

(20) 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 impersonations, action, and dialogue by a narrator and then through the assumption of each of the roles by a different person. A closely

(25) related theory traces theater to those dances that are primarily rhythmical and gymnastic or that are imitations of animal movements and sounds.

32. 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

33. The word "they" in line 4 refers to
(A) seasonal changes
(B) natural forces
(C) theories
(D) human beings

34. 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

35. Which of the following is NOT mentioned as a common element of theater and ritual?
(A) Dance (B) Costumes
(C) Music (D) Magic

36. The word "considerable" in line 15 is closest in meaning to
(A) thoughtful
(B) substantial
(C) relational
(D) ceremonial

37. The word "enactment" in line 15 is closest in meaning to
(A) establishment
(B) performance
(C) authorization
(D) season

38. The word "they" in line 16 refers to
(A) mistakes
(B) costumes
(C) animals
(D) performers

39. According to the passage, what is the manin 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.

40. 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.

41. 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 42 - 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. Civil government also had to be put back on a peacetime basis and interference from 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 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 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 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 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.

Line (5) (10) (15) (20) (25)

42. 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

43. The word " Staggering" inline 1 is closest in meaning to
   (A) specialized
   (B) confusing
   (C) various
   (D) overwhelming

44. The word "devastated" in line 3 is closest in meaning to
   (A) developing
   (B) ruined
   (C) complicated
   (D) fragile

45. 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.

46. 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

47. The word "task" in line 15 refers to
(A) raising the tax level
(B) sensible financial choices
(C) wise decisions about former slaves
(D) reconstructions of damaged areas

48. 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 South
(D) To compare the Northern and Southern presidents

49. The word "them" in line 26 refers to
(A) charges
(B) leaders
(C) days
(D) irons

50. 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.

Test 7

Questions 1-10

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.

A useful theory, in addition to explaining past observation, 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.

Science involves imagination and creative thinking as will 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."

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,

1. Which of the following is the main subject of the passage?
   (A) The importance of models in scientific theories
   (B) The place of theory and hypothesis in scientific investigation
   (C) The sorts of facts that scientists find most interesting
   (D) The ways that scientists perform different types of experiments

2. The word "related" in line 1 is closest in meaning to
   (A) connected
   (B) described
   (C) completed
   (D) identified

3. 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

4. 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

5. The word "supported" in line 9 is closest in meaning to
(A) finished (B) adjusted
(C) investigated (D) upheld

6. 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

7. 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 know facts
(D) close an investigation

8. In line 21, the author refers to a hypothesis as "a leap into the unknown" in order to show that hypotheses
(A) are sometimes ill-conceived
(B) can lead to dangerous results
(C) go beyond available facts
(D) require effort to formulate

9. In the last paragraph, what does the author imply is 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

10. 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

Questions 11-21

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 fish, and butter. After the Civil War(1861-1865), as ice was 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.

Making an efficient ice box 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 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 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.

11. 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

12. 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

13. The phrase "forward-looking" in line 4 is closest in meaning to
(A) progressive (B) popular
(C) thrifty (D) well-established

14. 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

15. The word "it" in line 6 refers to
(A) fresh meat
(B) the Civil War
(C) ice
(D) a refrigerator

16. 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

17. The word "rudimentary" in line 12 is closest in meaning to
(A) growing
(B) undeveloped
(C) necessary
(D) uninteresting

18. 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

19. The author describes Thomas Moore as having been "on the right track" (line18 -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

20. 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

21. The "produce" mentioned in line 25 could include
(A) iceboxes
(B) butter
(C) ice
(D) markets

Questions 22-23

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 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 failed commercially — once won by the young John Updike for *the Poorhouse Fair* and, more recently, by Alice Walker for *In Love and Trouble.*

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 money 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. 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. 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 and childless. 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.

22. 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

23. The word "sole" in line 1 is closest in meaning to
(A) only
(B) honorable
(C) common
(D) official

24. The word "subsidizes" in line 6 is closest in meaning to
(A) assures
(B) finances
(C) schedules
(D) publishes

25. 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.*

26. Each year the awards and prizes offered by the Academy-Institute total approximately
(A) $ 12,500
(B) $ 35,000
(C) $ 50,000
(D) $ 750,000

27. The word "may" in line 13 refers to
(A) practitioners
(B) advantages
(C) awards
(D) strugglers

28. What is one of the advantages of the Academy-Institute awards mentioned in the 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.

29. The word "rotates" in line 19 is closest in meaning to
(A) alternate
(B) participates
(C) decides
(D) meets

30. The word "they" in line 25 refers to
(A) Mildred and Harold Strauss
(B) years

(C) writers
(D) plays

31. Where in the passage does the author cite the goal of the Academy-Institute?
(A) Lines 1-3
(B) Lines 12-13
(C) Lines 19-20
(D) Lines 22-23

Questions 32-42

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 90percent of the examples. Fracture or wear patterns on tools also indicate that a majority of ancient people were right-handed.

Cro-Magnon cave paintings some 27,000years 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 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 toolmaking: implements flaked with a clockwise motion (indicating a right-handed toolmaker) can be distinguished from 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) 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 activities. Such studies, as well as studies of tool use, indicate that right- or left-sided dominance is not exclusive to modern *Homo sapiens*. Populations of Neanderthals, such as *Homo erectus* and *Homo habilis,* seem to have been predominantly right-handed, as we are.

32. 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.

33. The word "other" in line 8 refers to

(A) outline (B) hand

(C) wall (D) paint

34. 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.

35. The word "implements" in line 13 is closest in meaning to

(A) tools (B) designs

(C) examples (D) pieces

36. When compared with implements "flaked with a counter-clockwise rotation" (line15), it can be inferred that "implements flaked with a clockwise motion" (lines 13-14) are

(A) more common

(B) larger

(C) more sophisticated

(D) older

37. The word "clues" in line 16 is closest in meaning to

(A) solutions

(B) details

(C) damage

(D) information

38. 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

39. The word "hemispheres" in line 24 is closest in meaning to

(A) differences (B) sides

(C) activities (D) studies

40. Why does the author mention Homo erectus and 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

41. All of the following are mentioned as types of evidence concerning handedness EXCEPT
(A) ancient artwork
(B) asymmetrical skulls
(C) studies of tool use
(D) fossilized hand bones

42. 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's hemispheres was not evident in the skulls of *Homo erectus* and *Homo habilis.*

Questions 43-50

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.

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.

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 parasite 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 bases of hypersensitive resistance.

43. 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

44. The phrase "subject to" in line 1 is closest in meaning to
(A) susceptible to
(B) classified by
(C) attractive to
(D) strengthened by

45. The word "puncture" in line 8 is closest in meaning to
(A) pierce
(B) pinch
(C) surround
(D) cover

46. The word "which" in line 13 refers to
(A) tissues
(B) substances
(C) barriers
(D) insects

47. 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

48. 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

49. The word "dramatic" in line 23 could best be replaced by
(A) striking
(B) accurate
(C) consistent
(D) appealing

50. Where in the passage dose the author describe an active plant-defense reaction?
(A) Lines 1-3

(B) Lines 4-6
(C) Lines 15-17
(D) Lines 24-27

Test 8

Questions 1-9

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 Chaco 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 festival, 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.

1. 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

2. The word "supreme" in line 5 is closest in meaning to
(A) most common
(B) most outstanding
(C) most expensive
(D) most convenient

3. The word "They" in line 7 refers to
(A) houses
(B) bluffs
(C) walls
(D) families

4. The author mentions that Pueblo 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

5. The word "settle" in line 14 is closest in meaning to
(A) sink
(B) decide
(C) clarify
(D) locate

6. It can be inferred from 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

7. The word "ascending" in line 26 is closest in meaning to
(A) arriving at
(B) carving
(C) connecting
(D) climbing

8. It can be inferred from the passage that in addition to pueblos the Anasazis were skilled at building which of the following?

(A) Roads
(B) Barns
(C) Monuments
(D) Water systems

9. 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 10-20

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 Unites 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.

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.

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.

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.

10. 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

11. What can be inferred from 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.

12. The word "solemn" in line 7 is closest in meaning to
(A) simple
(B) serious
(C) short
(D) silent

13. 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

14. The word "them" in line 17 refers to
(A) years
(B) hands
(C) pieces
(D) films

15. 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.

16. It may be inferred from the passage that the first musical cue sheets appeared around
(A) 1896
(B) 1909
(C) 1915
(D) 1927

17. 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"

18. The word " composed" in line 26 is closest in meaning to
(A) selected
(B) combined
(C) played
(D) created

19. The word "scores" in line 26 is closest in meaning to
(A) totals
(B) successes
(C) musical compositions
(D) groups of musicians

20. 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 21-30

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 floor are less then 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, converting 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 moved 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.

21. The word "comprises" in line 1 is closest in meaning to
(A) adapts to
(B) benefits from
(C) consists of
(D) focuses on

22. 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

23. The word "which" in line 8 refers to
(A) crusts
(B) kilometers
(C) plates
(D) continents

24. The word "intense" in line 10 is closest in meaning to
(A) surface
(B) sudden
(C) rare
(D) extreme

25. 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

26. Which of the following drawings best represents a transform contact (line 13-14)?

27. The word "margins" in line 15 is closest in meaning to
(A) edges
(B) peaks

(C) interiors
(D) distances

28. The word "support" in line 17 is closest in meaning to
(A) separate
(B) create
(C) reduce
(D) hold

29. According to the passage, mountain ranges are formed then
(A) the crust is remelted
(B) two plates separate
(C) a rift is flooded
(D) continental plate collide

30. 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 31-39

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. Much has been written about the diversity of terrestrial organisms, particularly the 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 dominant, most-distinctive feature — the ocean. Humans have a bias toward land that sometimes 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 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 appreciate 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.

31. 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.

32. The word "appreciation" in line 2 is closest in meaning to
(A) ignorance
(B) recognition
(C) tolerance
(D) forgiveness

33. 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 their inhabitants require water.
(D) Both have many different forms of life.

34. The word "bias" in line 9 is closest in meaning to
(A) concern
(B) disadvantage
(C) attitude
(D) prejudice

35. The passage suggests that most rain forest species are
(A) insects
(B) bacteria
(C) mammals
(D) birds

36. The word "there" in line 24 refers to
(A) the sea
(B) the rain forests
(C) a tree
(D) the Earth's surface

37. 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

38. Which of the following is NOT mentioned as an example of microscopic sea life?
(A) Sponges
(B) Coral
(C) Starfish
(D) Shrimp

39. Which of the following conclusions is supported by the passage?
(A) Ocean life is highly adaptive.
(B) More attention 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 40-50

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 by the Rocky Mountains; it has no outlet to the sea. The prevailing winds in the Great 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, 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, piñon pines and junipers struggle to hold their own.

Line
(5)
(10)

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 once a string of interconnected lakes. The two largest of the ancient lakes of the Great

(15)

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.

40. 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.

41. 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

42. The word "prevailing" in line 4 is closest in meaning to
(A) most frequent (B) occasional
(C) gentle (D) most dangerous

43. 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

44. The word "it" in line 5 refers to
(A) Pacific Ocean
(B) air
(C) west
(D) the Great Basin

45. Why does the author mention cottonwoods and willows in line 11?
(A) To demonstrate that certain trees require a lit 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

46. 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

47. The words "the former" in line 17 refer to
(A) Lake Bonneville
(B) Lake Lahontan
(C) the Great Salt Lake
(D) Pyramid Lake

48. The word "accumulated" in line 19 is closest in meaning to
(A) dried
(B) flooded
(C) collected
(D) evaporated

49. According to the passage, the Ice Ages often brought about
(A) desert formation
(B) warmer climates
(C) broken valleys
(D) wetter weather

50. Where in the passage does the author explain how lakes probably formed in the Great Basin?
(A) Lines 6-7
(B) Lines 10-11
(C) Lines 13-14
(D) Lines 21-24

Test 9

Questions 1-12

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 excercise 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

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 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 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 older men.

1. What is the main topic of the passage ?
   (A) The agricultural activities of a North American Society
   (B) Various ways corn can be used
   (C) The problems encountered by farmers who specialize in growing one crop
   (A) Weather conditions on the western plains

2. 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
   (A) share farming implements

3. The word "enabled" in line 4 is closest in meaning to
   (A) covered
   (B) reminded
   (C) helped
   (A) isolated

4. The word "considerable" in line 8 is closest in meaning to
   (A) planning (B) much
   (C) physical (A) new

5. 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.
   (A) They could grow crops despite adverse weather.

6. The word "consumption" in line 18 is closest in meaning to
   (A) decay (B) planting
   (C) eating (A) conversion

7. 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
(A) Harvesting squash

8. The word "disaster" in line 22 is closest in meaning to
(A) control
(B) catastrophe
(C) avoidance
(A) history

9. According to the passage, the Mandans preserved their food by
(A) smoking
(B) drying
(C) freezing
(A) salting

10. The word "it" in line 25 refers to
(A) June
(B) corn
(C) time
(A) squash

11. Which of the following crops was cultivated primarily by men ?
(A) Corn
(B) Squash
(C) Sunflower
(A) Tobacco

12. Throughout the passage, the author implies that the Mandans
(A) planned for the future
(B) valued individuality
(C) were open to strangers
(A) were very adventurous

Questions 13-21

The elements other than hydrogen and helium exist in such small quantities that it is accurate to say that the universe is somewhat more than 25 percent helium by weight and somewhat less than 75 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 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.

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 one-minute 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 formations of helium went on for only relatively short time. By the time the universe was a few minutes old, helium production had effectively ceased.

13. 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

14. 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

15. The word "constituents" in line 7 is closest in meaning to
(A) relatives (B) causes
(C) components (A) targets

16. 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
(A) To explain the abundance of hydrogen in the universe

17. The word "vary" in line 10 is closest in meaning to
(A) mean
(B) stretch
(C) change
(A) include

18. The creation of helium within stars
(A) cannot be measured
(B) produces energy
(C) produces hydrogen as a by-product
(A) causes helium to be much more abundant in old stars than in young stars

19. The word "calculated" in line 15 is closest in meaning to
(A) ignored
(B) converted
(C) increased
(A) determined

20. Most of th 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
(A) before most of the hydrogen

21. The word "ceased" in line 26 is closest in meaning to
(A) extended
(B) performed
(C) taken hold
(A) stopped

Questions 22-31

In colonial America, people generally covered their beds with decorative quilts resembling those of the lands from which the quilters had come. Wealthy and socially prominent settlers made quilts of the English style, cut from large lengths of cloth of
Line the same color and texture rather than stitched together from smaller pieces. They made
(5) 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

(10) 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 fibers, 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 (15) 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.

This type of heavy, warm, quilted bedcover was so large that it hung to the floor. The corners were cut out at the foot of the cover so that the quilt fit snugly around the tall (20) 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 and 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.

22. What does this passage mainly discuss ?
(A) The processing of wool
(B) Linsey-woolsey bedcovers
(C) Sleeping habits of colonial Americans
(A) Quilts made in England

23. The word "prominent" in line 3 is closest in meaning to
(A) isolated
(B) concerned
(C) generous
(A) distinguished

24. The author mentions the Revolutionary War as a time period when
(A) quilts were supplied to the army
(B) more immigrants arrived from England
(C) quilts imported from England became harder to find
(A) people's attitude toward England changed

25. 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

26. The term "linsey-woolsey" originally meant fabric used primarily in
(A) quilts
(B) sheets

(C) clothing
(D) pillows

27. The word "coarser" in line 13 is closest in meaning to
(A) older
(B) less heavy
(C) more attractive
(D) rougher

28. The quilts described in the second and third paragraphs were made primarily of
(A) wool
(B) linen
(C) cotton
(D) a mixture of fabrics

29. It can be inferred from the third paragraph that the sleeping habits of most Americans have changed since the 1700's in all of 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

30. The word "afforded" in line 24 is closest in meaning to
(A) provided
(B) spent
(C) avoided
(D) absorbed

31. 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 32-41

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
Line 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 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 several years. Even more shade-tolerant 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 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 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 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.

32. What does this 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

33. The word "dense" in line 1 is closest in meaning to
(A) dark
(B) tall
(C) thick
(D) broad

34. Alder trees can suppress the growth of nearby trees by depriving them of
(A) nitrogen
(B) sunlight
(C) soil nutrients
(D) water

35. The passage suggests that Douglas fir trees are
(A) a type of alder
(B) a type of evergreen
(C) similar to sword fern
(D) fast-growing trees

36. 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

37. 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

38. The word "they" in line 21 refers to
(A) newly developing soils
(B) alders
(C) bags
(D) chemical changes

39. According to the passage, alders added all of the following to soil EXCEPT
(A) nitrogen
(B) calcium
(C) carbon
(D) oxygen

40. 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

41. 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 42-50

Line

In taking up a 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

(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 took so seriously one expression of *(10)* the period, "Leasure is time for doing something useful." In the countryside farmers therefore relieved the burden of the daily routine with such double-purpose relaxations 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.

With the open countryside everywhere at hand, city dwellers naturally shard in *(25)* 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.

42. 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

43. 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.

44. Which of the following can be said about the county 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.

45. The phrase " thanks to" in line 8 is closest in meaning to
(A) grateful for
(B) help with
(C) because of

(D) machines for

46. The word "their" in line 8 refers to
(A) ways
(B) farm dwellers
(C) demands
(D) pressures

47. 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

48. The phrase "eagerly anticipated" in line 16 in closest in meaning to
(A) well organized
(B) old-fashioned
(C) strongly opposed
(D) looked forward to

49. 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 of items useful in the home.
(C) They were activities that could be done equally easily in the towns.
(D) They were all outdoor activities.

50. 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

Test 10

Questions 1-10

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 actual 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 men who, in contrast to most other Native American groups, planted them. The women made baskets and pottery; the men wove textiles 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.

1. What does the passage mainly discuss?
   (a) The culture of the Anasazi people
   (b) European settlement in what became the southeastern United States
   (c) The construction of Anasazi houses
   (d) Political structures of Native American peoples

2. The Anasazi people were considered "agriculturally advanced" because of the way they ---
   (a) stored their crops

(b) fertilized their fields
(c) watered their crops
(d) planted their fields

3. The word "pits" in line 7 is closest in meaning to
(a) stages (b) scars
(c) seeds (d) holes

4. The word "stories" in line 12 is closest in meaning to
(a) articles (b) tales
(c) levels (d) rumors

5. Who would have been most likely to control the sacred objects of an Anasazi family?
(a) A twenty-year-old man
(b) A twenty-year-old woman
(c) A forty-year-old man
(d) A forty-year-old woman

6. The word "they" in line 16 refers to
(a) women (b) crops
(c) rooms (d) pueblos

7. The word "disputes" in line 20 is closest in meaning to
(a) discussions
(b) arguments
(c) developments
(d) purchases

8. Which of the following activities was NOT done by Anasazi men?
(a) Making baskets
(b) Planting crops
(c) building homes
(d) Crafting jewelry

9. According to the passage, what made it almost impossible for other groups to conquer the Anasazi?
(a) The political and social organization of th Anasazi
(b) The military tactics employed by the Anasazi
(c) The Anasazi's agricultural technology
(d) The natural barriers surrounding Anasazi villages

10. 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.

Questions 11-20

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 considerable effect on cattle ranching, since the herds no longer had unrestricted use of the plains 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 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 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 coils or entanglements called concertina wire.

11. 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

12. The word "unrestricted" in line 4 is closest in meaning to
(a) unsatisfactory (b) difficult
(c) considerable (d) unlimited

13. The word "snap" in line 9 could best be replaced by which of the following?
(a) freeze (b) click
(c) loosen (d) break

14. 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

15. 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) strengthen them

16. The word "fed" in line 20 is closest in meaning to
(a) put (b) eaten
(c) bitten (d) nourished

17. 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

18. 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

19. According to the passage, concertina wire is used for

(a) livestock management
(b) international communications
(c) prison enclosures
(d) military purposes

20. Which of the following most closely resembles the fencing described in the passage?

Questions 21-29

Under certain circumstances, 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 underwater longer and dive deeper. The pressure exerted on the human body increases 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 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 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 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 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 ascend slowly, never at a rate exceeding the rise of the exhaled air bubbles, and must exhale during ascent.

21. 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

22. The words "exposed to" in line 6 are closest in meaning to
(a) leaving behind (b) prepared for
(c) propelled by (d) subjected to

23. The word "exert" in line 15 is closest in meaning to
(a) cause (b) permit

(c) need (d) change

24. The word "diffuses" in line 19 is closest in meaning to
(a) yields (b) starts
(c) surfaces (d) travels

25. 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

26. The word "they" in line 21 refers to
(a) joints (b) pains
(c) bubbles (d) tissues

27. The word "rupture" in line 26 is closest in meaning to
(a) hurt (b) shrink
(c) burst (d) stop

28. 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

29. What should a diver do when ascending?
(a) Rise slowly
(b) Breathe faster
(c) Relax completely
(d) Breathe helium

Questions 30-39

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 realm of single-celled plants and animals. In the twentieth century, electron microscopes have provided direct views of viruses and minuscule surface structures. Now another type of microscope, one that utilizes 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, 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 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. 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.

30. 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 techniques

31. According to the passage, the invention of the visible-light microscope allowed scientists to
(a) see viruses directly
(b) develop the electron microscope late on
(c) understand more about the distribution of the chemical elements
(d) discover single-celled plants and animals they had never seen before

32. The word "minuscule" in line 5 s closest in meaning to
(a) circular (b) dangerous
(c) complex (d) tiny

33. The word "it" in line 7 refers to
(a) a type of microscope
(b) human perception
(c) the natural world
(d) light

34. 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 a historical perspective
(c) To show how limited its uses are
(d) To explain how it functioned

35. 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.

36. The word "enables" in line 22 is closest in meaning to
(a) constitutes (b) specifies
(c) expands (d) allows

37. The word "Rather" on line 28 is closest in meaning to
(a) Significantly (b) Preferably
(c) Somewhat (d) Instead

38. The word "those" in line 29 refers to
(a) properties (b) investigations
(c) microscopes (d) x-rays

39. 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 rage that they now use.

Questions 40-50

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 complacence 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

Line (5)

is original. Chivalry was suspect before Cervantes, humanists objected to the claims of
(10) 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
(15) 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 live in a world of platitudinous
(20) 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
(25) 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.

40. 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

41. The word "realization" in line 6 is closest in meaning to
(a) certainty (b) awareness
(c) surprise (d) confusion

42. Why does the author mention *Don Quixote, 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.

43. The word "aesthetically" in line 13 is closest in meaning to
(a) artistically (b) exceptionally
(c) realistically (d) dependably

44. Which of the following can be found in satiric literature?
(a) Newly emerging philosophies
(b) Odd combinations of objects and ideas
(c) Abstract discussion of morals and ethics
(d) Wholesome characters who are unselfish

45. According to the passage, there is a need for satire because people need to b
(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

46. The word "refreshing" in line 19 is closest in meaning to
(a) popular (b) ridiculous
(c) meaningful (d) unusual

47. The word "they" in line 22 refers to
(a) people (b) media
(c) ideals (d) movies

48. The word "devote" in line 25 is closest in meaning to
(a) distinguish (b) feel affection
(c) prefer (d) dedicate

49. 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

50. 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

answers

Test 1

1. A 2. C 3. B 4. A 5. D 6. D 7. B 8. B 9. D 10. A
11. D 12. C 13. C 14. C 15. B 16. B 17. D 18. B 19. B 20. C
21. B 22. B 23. C 24. B 25. B 26. C 27. A 28. D 29. D 30. A
31. A 32. A 33. B 34. A 35. B 36. D 37. B 38. A 39. C 40. A
41. A 42. B 43. A 44. B 45. D 46. B 47. D 48. D 49. B 50. D

Test 2

1. D 2. C 3. A 4. D 5. A 6. D 7. C 8. B 9. A 10. D
11. B 12. B 13. D 14. D 15. B 16. B 17. A 18. C 19. C 20. D
21. A 22. D 23. B 24. C 25. D 26. A 27. C 28. B 29. D 30. B
31. C 32. C 33. C 34. D 35. B 36. A 37. A 38. B 39. A 40. C
41. C 42. B 43. A 44. C 45. D 46. D 47. D 48. A 49. D 50. C

Test 3

1. B 2. C 3. C 4. C 5. D 6. B 7. A 8. D 9. A 10. D
11. C 12. A 13. D 14. C 15. C 16. B 17. D 18. B 19. D 20. A
21. B 22. B 23. B 24. C 25. C 26. A 27. D 28. D 29. A 30. D
31. D 32. D 33. A 34. A 35. A 36. C 37. C 38. D 39. A 40. B
41. D 42. C 43. B 44. B 45. C 46. B 47. D 48. D 49. A 50. C

Test 4

1. B 2. C 3. D 4. C 5. B 6. C 7. B 8. A 9. C 10. B
11. C 12. D 13. D 14. D 15. C 16. C 17. A 18. B 19. B 20. A
21. C 22. D 23. B 24. C 25. A 26. D 27. A 28. B 29. A 30. C
31. D 32. B 33. A 34. B 35. B 36. C 37. C 38. A 39. A 40. B
41. B 42. B 43. B 44. A 45. B 46. C 47. A 48. A 49. C 50. C

Test 5

1. B 2. C 3. A 4. B 5. D 6. B 7. C 8. C 9. D 10. B
11. C 12. B 13. B 14. B 15. C 16. D 17. D 18. A 19. C 20. B
21. B 22. A 23. D 24. C 25. D 26. A 27. B 28. A 29. A 30. C
31. B 32. C 33. A 34. B 35 A 36. B 37. A 38. B 39. C 40. D
41. A 42. A 43. C 44. B 45. C 46. C 47. A 48. D 49. B 50. A

Test 6

1. C 2. D 3. B 4. B 5. D 6. C 7. B 8. A 9. C 10. D
11. C 12. B 13. A 14. C 15. D 16. A 17. D 18. A 19. B 20. A
21. B 22. D 23. A 24. D 25. A 26. C 27. D 28. C 29. A 30. B
31. D 32. A 33. D 34. C 35. D 36. B 37. B 38. D 39. D 40. A
41. B 42. B 43. D 44. B 45. A 46. D 47. D 48. A 49. B 50. C

Test 7

1. B 2. A 3. B 4. B 5. D 6. C 7. B 8. C 9. C 10. D
11. B 12. B 13. A 14. C 15. C 16. D 17. B 18. C 19. D 20. A
21. B 22. B 23. A 24. B 25. D 26. D 27. C 28. B 29. A 30. C
31. A 32. C 33. B 34. D 35. A 36. A 37. D 38. A 39. B 40. C

41. D 42. B 43. C 44. A 45. A 46. B 47. D 48. C 49. A 50. D

Test 8

1. A 2. B 3. A 4. D 5. B 6. A 7. D 8. A 9. B 10. B
11. D 12. B 13. C 14. D 15. B 16. B 17. A 18. D 19. C 20 D
21. C 22. B 23. C 24. D 25. B 26. D 27. A 28. D 29. D 30. C
31. C 32. B 33. D 34. D 35. A 36. A 37. A 38. D 39. B 40. C
41. D 42. A 43. D 44. B 45. B 46. B 47. B 48. C 49. D 50. D

Test 9

1. A 2. A 3. C 4. B 5. A 6. C 7. C 8. B 9. B 10. A
11. A 12. A 13. C 14. A 15. C 16. A 17. C 18. B 19. A 20. B
21. A 22. B 23. A 24. A 25. C 26. C 27. D 28. A 29. C 30. A
31. A 32. D 33. C 34. B 35. B 36. D 37. B 38. B 39. D 40. A
41. A 42. D 43. A 44. C 45. C 46. B 47. B 48. D 49. C 50. B

Test 10

1. A 2. C 3. D 4. C 5. D 6. B 7. B 8. A 9. A 10. C
11. B 12. D 13. D 14. B 15. A 16. A 17. D 18. C 19. D 20. A
21. B 22. D 23. A 24. D 25. A 26. C 27. C 28. D 29. A 30. C
31. D 32. D 33. A 34. B 35. B 36. D 37. D 38. B 39. C 40. D
41. B 42. A 43. A 44. B 45. C 46. D 47. A 48. D 49. D 50. B