Skills Test in Reading

Directions: Read the following passages and answer the questions that follow.

Use the following passage to answer questions 1–3.

It is generally allowed that Guiana and Brazil, to the north and south of the Pará district, form two distinct provinces, as regards their animal and vegetable inhabitants. This means that the two regions have a very large number of forms peculiar to themselves, and which are supposed not to have been derived from other quarters during modern geological times. Each may be considered as a center of distribution in the latest process of dissemination of species over the surface of tropical America. Pará lies midway between the two centers, each of which has a nucleus of elevated tableland, while the intermediate river valley forms a wide extent of low-lying country. It is, therefore, interesting to ascertain from which the latter received its population, or whether it contains so large a number of endemic species as would warrant the conclusion that it is itself an independent province. To assist in deciding such questions as these, we must compare closely the species found in the district with those of the other contiguous regions, and endeavor to ascertain whether they are identical, or only slightly modified, or whether they are highly peculiar.

1. Which sentence best summarizes the main point of the passage?
   a. The fauna and flora of Pará are distinct from both the flora and fauna of Guiana and the fauna and flora of Brazil.
   b. Pará supports a very large number of ecologically distinct habitats.
   c. Ecological considerations override all others with respect to Pará.
   d. It has not yet been determined whether Pará is an ecologically distinct district.
   e. The government of Pará has historically not been supportive of biological expeditions.

2. Each of the following conclusions can be made from the passage EXCEPT
   a. both Guiana and Brazil are ecologically distinct provinces in South America.
   b. both Guiana and Brazil are centers of distribution for the dissemination of species into Pará.
   c. Pará consists of a nucleus of elevated tableland and a low-lying river valley.
   d. the Pará district can be found to the north of Brazil.
   e. Guiana, Brazil, and the Pará district can all be considered part of tropical America.

3. It can be inferred from this passage that the main criterion for declaring any given area a distinct province in terms of its flora and fauna is
   a. the particulars of the district's geographical features, including its isolation or lack thereof.
   b. the number of peculiar species endemic to the district.
   c. the district's proximity to natural populations of endemic species.
   d. the number of identical species inhabiting contiguous regions.
   e. the diversity of species within geographical boundaries.
Use the following passage to answer questions 4 and 5.

Laughter is always the laughter of a group. It may, perchance, have happened to you, when seated in a railway carriage, to hear travelers relating to one another’s stories which must have been comic to them, for they laughed rapturously. Had you been one of their company, you would have laughed like them; but, as you were not, you had no desire whatsoever to do so. However spontaneous it seems, laughter always implies a kind of complicity with other laughers, real or imaginary. How often has it been said that the fuller the theater, the more uncontrolled the laughter of the audience! On the other hand, how often has the remark been made that many comic effects are incapable of translation from one language to another, because they refer to the customs and ideas of a particular social group!

5. In the context of the text, the word rapturously in line 6 could be replaced with which of the following words to have the LEAST impact on what the sentence means?
   a. sanguinely
   b. painfully
   c. morosely
   d. awkwardly
   e. hilariously

Use the following passage to answer question 6.

As album sales have dwindled dramatically over the past decade, likely at least in part to the proliferation of file-sharing sites for illegal song downloads, some record companies claim that fans are manipulating their favorite artists’ creative abilities by limiting potential earnings. In lieu of selling 100,000 albums from record stores, one producer explains, the same band may now only be selling 20,000 albums—scantily earning enough royalties for musicians to pay for their instruments and food for their families.

4. What role does the author’s anecdote about the travelers in the railway carriage serve in the passage’s central argument?
   a. It demonstrates through personal experience that laughter is an isolated phenomenon.
   b. It illustrates how the specific customs and ideas of his or her society dictate what is and what is not funny.
   c. It accentuates that an individual apart from an intended audience may lack a necessary connection to find humor in a situation.
   d. It shows the significant impact of proximity on a humorous situation.
   e. It demonstrates that laughter is an inexplicably spontaneous event.
6. Which statement, if it were true, would most significantly weaken the argument made by the record companies that fewer album sales are negatively impacting musicians' abilities to support themselves?
   a. Some users of illegal file-sharing sites have been sued by the record labels for theft of copyrighted property.
   b. In response to lackluster album sales, bands have frequently increased their touring schedules to play additional concerts.
   c. Many bands have recently set up their own websites where fans have purchased albums directly from the musicians, avoiding the cut of profits taken by record companies.
   d. Due to rising gas prices, the costs involved for shipping albums have increased at a time when album sales have decreased.
   e. Thanks to modern technology, a greater number of bands have been able to reach a wider audience without depending on record labels.

Use the following passage to answer questions 7 and 8.

Astronauts expose themselves to a wide range of dangers and hardships as a result of their profession. Space travel is itself, of course, a risky endeavor. But one of the most imperceptible sources of distress for astronauts is the constant exposure to microgravity, a gravitational force in space that is one millionth as strong as the force on Earth. In prolonged space flight, aside from the obvious hazards of meteors, rocky debris, and radiation, astronauts have to deal with muscle atrophy brought on by weightlessness caused by this microgravity. To try to counteract this deleterious effect, astronauts engage in a daily exercise regimen while in space. Effective workouts while in space include riding a stationary bike, treadmill running while harnessed, and working against a resistive force, such as a bungee cord. When they return to Earth, astronauts face a protracted period of weight training to rebuild their strength.

7. Which sentence in the passage best presents readers with a major point rather than a minor point of the passage?
   a. “Astronauts expose... profession.”
   b. “Space travel... endeavor.”
   c. “But one... Earth.”
   d. “To try... space.”
   e. “Effective workouts... cord.”

8. As it appears in the passage, the word *atrophy* (line 11) most closely means
   a. pain.
   b. deterioration.
   c. weakening.
   d. cramping.
   e. augmentation.

Use the following passage to answer question 9.

Part of the United States' Bill of Rights, the Fourth Amendment to the Constitution protects citizens against unreasonable search and seizure. The amendment states that no search of a person's home or personal effects may be conducted without a written search warrant issued on probable cause. This means that a neutral judge must approve the factual basis justifying a search before it can be conducted. This process can take several days, a frustrating wait for police anxious to conduct their search.

9. This paragraph best supports the statement that the police cannot search a person's home or private papers unless they have
   a. legal authorization.
   b. direct evidence of a crime.
   c. read the person his or her constitutional rights.
   d. a reasonable belief that a crime has occurred.
   e. requested that a judge be present.
Use the following passage to answer questions 10–13.

Necessity is the first lawgiver; all the wants that had to be met by this constitution were originally of a commercial nature. Thus, the whole constitution was founded on commerce, and the laws of the nation were adapted to its pursuits. The last clause, which excluded foreigners from all offices of trust, was a natural consequence of the preceding articles. So complicated and artificial a relation between the sovereign and his people, which in many provinces was further modified according to the peculiar wants of each, and frequently of some single city, required for its maintenance the liveliest zeal for the liberties of the country, combined with an intimate acquaintance with them. From a foreigner, neither could well be expected. This law, besides, was enforced reciprocally in each particular province; so that in Brabant no Fleming, and in Zealand no Hollander could hold office; and it continued in force even after all these provinces were united under one government.

Above all others, Brabant enjoyed the highest degree of freedom. Its privileges were esteemed so valuable that many mothers from the adjacent provinces removed thither about the time of their accouchement, in order to entitle their children to participate, by birth, in all the immunities of that favored country; just as, says Strada, one improves the plants of a rude climate by removing them to the soil of a milder.

10. The author of this passage would most likely agree with which of the following assumptions?
   a. Foreigners are generally not to be trusted.
   b. Crossing borders to give birth is morally suspect.
   c. Laws, as a rule, develop in response to a need for laws.
   d. Unification is a natural tendency for smaller provinces.
   e. No person should be immune to legal restrictions.

11. Which statement, if true, would most weaken the position that foreigners are not able to hold a position of trust?
   a. People are able to study the laws of other countries through comprehensive programs designed to immerse them in the intricacies of the laws.
   b. Even many years after living in a foreign land, politicians have generally shown favoritism toward their native land.
   c. Research shows that the age of a candidate holding an office of trust has a greater influence than his or her country of origin on his or her ability to succeed.
   d. The level of distrust a population feels for a foreign-born leader or politician can rarely be eradicated.
   e. Many successful nations, such as the United States, were built on a population that mostly originated from other locations.

12. This passage can best be summarized as a
   a. defense of a thesis that increased freedom leads to more vigorous commerce.
   b. reconciliation of opposing views of constitutional development.
   c. contrast and comparison of vagaries of preunification provincial law.
   d. review of similarities and contrasts among preunification provincial laws.
   e. polemic advocating the desirability of legal reciprocity among neighboring provinces.
13. Which justification does the text provide as support for the exclusion of foreigners from all offices of trust?

a. The laws were extremely complex, necessitating extensive familiarity with their nuances.

b. Stringent enforcement of the laws would be impossible.

c. Mutual distrust prevailed at this time among the various provinces.

d. The election of foreigners to offices of trust would necessitate an unnatural unification.

e. Opening up positions to foreigners that were previously limited to citizens could take away local job opportunities.

Use the following passage to answer questions 14–17.

The night and the day are not generally equal. There is, however, one occasion in spring, and another in autumn about half a year later, on which the day and the night are each twelve hours at all places on Earth. When the night and day are equal, the point which the Sun occupies on the heavens is termed the equinox; an equinox occurs in March and then again in September. In any investigation of the celestial movements, the positions of these two equinoxes on the heavens are of primary importance. The discovery of this remarkable celestial movement known as the precession of the equinoxes is attributed to the mastermind Hipparchus. The inquiry that led to his discovery involved a most profound investigation, especially when it is remembered that in the days of Hipparchus, the means of observation of the heavenly bodies were only of the crudest description. We can but look with astonishment on the genius of the man who, in spite of such difficulties, was able to detect such a phenomenon as the precession, and to exhibit its actual magnitude. The ingenuity of Hipparchus enabled him to determine the positions of each of the two equinoxes relative to the stars that lie in its immediate vicinity. After examination of the celestial places of these points at different periods, he was led to the conclusion that each equinox was moving relatively to the stars, though that movement was so slow that 25,000 years would necessarily elapse before a complete circuit of the heavens was accomplished. It can be said of his discovery that this was the first instance in the history of science in which we find that combination of accurate observation with skillful interpretation, of which, in the subsequent development of astronomy, we have so many splendid examples.

14. It can be inferred from the passage that the way in which Hipparchus contributed most importantly to science was which of the following?

a. He was the first to observe the heavens.

b. He was first to perceive the equinoxes.

c. He was the first to combine observation with skillful interpretation.

d. He worked primarily with crude instruments of observation.

e. He was the first to realize that the Earth rotates with a tilted axis around the Sun.

15. According to the passage, which is NOT a true statement about the earth's equinoxes?

a. Day and night are equivalent in length on the equinoxes.

b. The equinoxes fall on the same day for both the northern and southern hemispheres.

c. It takes 25,000 years for a complete precession to occur.

d. The distance from the Earth to the Sun is the same on the equinoxes.

e. One equinox follows about six months after another.
16. Which best describes the general organization of the passage?
   a. Two opposing scientific theories are introduced, and then those theories are dissected.
   b. The problem of balanced sunlight is presented, and then the solution is determined.
   c. An inequality is established, and then the causes of the inequality are investigated.
   d. A scientific breakthrough is portrayed, and then the resulting effects are illustrated.
   e. A natural phenomenon is described, and then its definition and discovery are detailed.

17. In the context of the text, the word immediate in line 27 could be replaced with which of the following words to have the LEAST impact on what the sentence means?
   a. swift
   b. neighboring
   c. firsthand
   d. current
   e. remote

18. In the context of the passage, the word executed (line 6) means
   a. assassinated.
   b. participated in.
   c. destroyed.
   d. joined.
   e. initiated.

Use the following passage to answer questions 19–21.

1. Geometry sets out from certain conceptions such as “plane,” “point,” and “straight line,” with which we are able to associate definite ideas, and from certain simple propositions (axioms) which, in virtue of these ideas, we are inclined to accept as “true.” Then, on the basis of a logical process, the justification of which we feel ourselves compelled to admit, all remaining propositions are shown to follow from these axioms, i.e., they are proven. A proposition is then correct (“true”) when it has been derived in the recognized manner from the axioms. The question of “truth” of the individual geometrical propositions is thus reduced to one of the “truth” of the axioms. Now it has long been known that the last question is not only unanswerable by the methods of geometry, but that it is in itself entirely without meaning. We cannot ask whether it is true that only one straight line goes through two points. We can only say that Euclidean geometry deals with things called “straight lines,” to each of which is ascribed the property of being uniquely determined by two points situated on it.

19. The author’s assertion in line 18 that it is in itself entirely without meaning refers to
   a. geometrical propositions.
   b. the nature of straight lines.
   c. the truth of the axioms of geometry.
   d. the methods of geometry.
   e. any question of the truth of geometry.
20. It can be inferred from the passage that the truth of a geometrical proposition depends on which of the following?
   a. the concept of straight lines
   b. the validity of Euclidean geometry
   c. the logical connection of the ideas of geometry
   d. our inclination to accept it as true
   e. the truth of the axioms

21. In this passage, the author is chiefly concerned with which of the following topics?
   a. a definition of geometric axioms
   b. the truth, or lack thereof, of geometrical propositions
   c. the logical process of defining straight lines
   d. the ability to use geometrical propositions to draw conclusions
   e. the precise conceptions of objects such as planes or points.

22. Each of the following statements about Wolfgang Mozart is directly supported by the passage EXCEPT
   a. Mozart’s father Leopold was instrumental in shaping his career.
   b. Wolfgang had the ability to play multiple instruments at a professional level.
   c. Wolfgang’s childhood was devoted to his musical career.
   d. he played only the harpsichord and the violin in his career.
   e. he traveled extensively across the European continent.

23. The portion of the text in **boldface** serves what primary purpose in the passage?
   a. It provides support for Wolfgang’s immense musical talent.
   b. It provides proof for Wolfgang’s heavy touring schedule.
   c. It demonstrates that Leopold was justified in booking Wolfgang’s concerts.
   d. It provides support that Wolfgang was mistreated as a young musician.
   e. It showed that Wolfgang was physically unhealthy.

Use the following passage to answer questions 24–30.

Wolfgang Amadeus Mozart’s remarkable musical talent was apparent even before the age most children are able to sing a simple nursery rhyme. His father Leopold recognized his unique gifts and devoted himself to Mozart’s musical education. By age five, Wolfgang had composed his first original work. By age six, when Wolfgang was not only a virtuoso harpsichord player, but also a master violin player, Wolfgang gave his first public concert. The audience was stunned, and word of his genius traveled. Leopold was soon inundated with invitations for Wolfgang to play. Leopold seized the opportunity and booked as many concerts as possible at courts throughout Europe. **A concert could last up to three hours, and Wolfgang played at least two of these concerts per day.** Today, Leopold might be considered the worst kind of stage parent, but at the time, it was not uncommon for prodigies to make extensive concert tours. Even so, it was an exhausting schedule for a child who was just past the age of needing an afternoon nap.

1. For reasons scientists haven’t yet fully understood but that may be related to warming water temperatures or overfishing, jellyfish populations are swelling across the planet’s oceans. For swimmers and recreational divers, this is bad news, as jellyfish are not only a nuisance but also a potential danger. Unfortunately, jellyfish offer almost no nutritional value and serve little
24. Which animal is most similar to the sunfish, in that its diet is beneficial to human beings?
   a. spiders, whose diet includes mosquitoes and other insects
   b. tuna, whose diet includes squid and shellfish
   c. rhinoceros, whose diet includes grass and fruits
   d. grizzly bears, whose diet includes fish
   e. ticks, whose diet includes mammalian blood

25. Which description of a sunfish best represents a statement of opinion rather than a fact?
   a. It is the largest bony fish.
   b. It eats primarily jellyfish.
   c. It has an unusual appearance.
   d. Its sale is banned in Europe.
   e. It is eaten by people.

26. Which organization best describes how the passage is structured?
   a. Two ocean creatures are compared and contrasted.
   b. The main idea is presented, and then supporting ideas provide support.
   c. A fascinating sea creature is defined, and then its attributes are detailed.
   d. The dietary constraints of one creature is listed, and then a solution is given.
   e. A distressing trend is described, and then a potential solution is provided.

27. In the context of the passage, the word *curtail* (line 11) most nearly means
   a. reverse.
   b. increase.
   c. withstand.
   d. curb.
   e. liberate.

28. Which key word from the passage helps transition the passage from the negative characteristics of jellyfish to the positive attributes of ocean sunfish?
   a. unfortunately
   b. difficult
   c. however
   d. entirely
   e. though

29. Which statement best describes the author's attitude toward the ocean sunfish?
   a. It is not necessarily the largest creature in the ocean.
   b. Its population change remains a mystery to scientists.
   c. It should expand its diet to other non-jellyfish creatures to better adapt.
   d. It should be protected to help limit the escalation of jellyfish populations.
   e. It does not serve a valuable or important purpose in the oceans.
30. Which supporting idea provides the best support for the statement in the last sentence of the passage?
   a. The ocean sunfish is the largest known bony fish in the world.
   b. The increase in jellyfish populations may be related to warming waters or overfishing, but scientists are not certain.
   c. Due to the limited nutritional value of jellyfish, ocean sunfish must eat a lot of them in their diet.
   d. The ocean sunfish is an unusual-looking creature and oddly shaped.
   e. Jellyfish do not serve an important role in the oceans.

Use the following passage to answer questions 31–36.

1. The first bicycle, a fragile wooden model called a draisienne, was invented in Germany in 1818 by Baron Karl de Drais de Sauerbrun. Riders moved it by pushing their feet against the ground. In 1839, Kirkpatrick Macmillan, a Scottish blacksmith, developed an improved model with tires that had iron rims to keep them from getting worn down. He also used foot-operated cranks, similar to pedals, as an instrument to faster riding. It didn't look much like the modern bicycle, though, because its back wheel was substantially larger than its front wheel. Although Macmillan's bicycles could be ridden easily, they were never produced in large numbers. In 1861, Pierre and Ernest Michaux invented a popular bicycle called a velocipede (“fast foot”) with an improved crank mechanism that connected to the front wheel. Ten years later, James Starley, an English inventor, made several innovations that revolutionized bicycle design. He made the front wheel many times larger than the back wheel, put a gear on the pedals to make the bicycle more efficient, and lightened the wheels with wire spokes. Although this bicycle was much lighter and less tiring to ride, it was still clumsy and top-heavy. It wasn't until 1874 that the first truly modern bicycle appeared. Invented by another Englishman, H.J. Lawson, the safety bicycle had equal-sized wheels, which made it much less prone to toppling over. Lawson also attached a chain to the pedals to drive the rear wheel, and, by 1893, improved the bicycle further with air-filled rubber tires, a diamond-shaped frame, and easy braking.

31. It can be inferred from the passage that Kirkpatrick Macmillan affected the development of the bicycle by
   a. improving the overall energy efficiency of the design.
   b. increasing the durability of the bicycle.
   c. allowing the bicycle to be ridden by the masses.
   d. making it lighter and therefore easier to ride.
   e. adjusting the size of the wheels so that the front wheel was larger.

32. Based on the information from the passage, which series of improvements to the bicycle represents the sequence of changes in chronological order?
   a. iron rims, improved crank mechanism, wire spokes, rubber tires, equal-sized wheels
   b. iron rims, gears on pedals, improved crank mechanism, equal-sized wheels, diamond-shaped frame
   c. iron rims, improved crank mechanism, wire spokes, easy braking, chain to the pedals
   d. diamond-shaped frame, easy braking, equal-sized wheels, iron rims, wire spokes
   e. iron rims, improved crank mechanism, wire spokes, equal-sized wheels, diamond-shaped frame
33. The development of the bicycle was most similar to the development of the
   a. hot-air balloon, because it helped transport passengers great distances without an
      engine.
   b. radio, because it improved the methods and speed of communications.
   c. space station, because its components were constructed over a period of several years.
   d. atomic bomb, because an advancement in technology allowed for the development.
   e. automobile, because its design was improved upon by many different inventors over a
      long period of time.

34. In the context of the passage, instrument (line 10) most nearly means
   a. musical mechanism.
   b. monitoring device.
   c. formal document.
   d. impediment.
   e. mechanical contraption.

35. Based on the information in the passage, which prediction for the future of bicycle development is most likely?
   a. The development of the bicycle will cease as all potential improvements have been achieved.
   b. The design will regress to the conditions of the nineteenth-century bicycle, including unequal wheel sizes.
   c. Future modifications to the bicycle will further enhance the design and specifications.
   d. Added weight to the framework design will improve stability and control.
   e. The advent of jet propulsion and safety features will allow for potential air travel.

36. Which description of a bicycle design represents a statement of opinion rather than fact?
   a. Starley's bicycle design made the bicycle clumsy to ride.
   b. Lawson's chain on the pedals drove the rear wheel of the bicycle.
   c. The inclusion of wire spokes made the bicycle lighter.
   d. A gear for the pedals made the bicycle more efficient.
   e. Pierre and Ernest Michaux invented a popular bicycle in 1861.

Use the following passage to answer question 37.

The demotion of Pluto's status in our solar system from planet to dwarf planet in 2006 was an upsetting development for many fans. After all, Pluto is shaped like the other planets—and Pluto even has its own moon! However, the recent discovery of additional celestial bodies similar to Pluto's shape and size forced scientists to agree on the definition of a planet; planets must now be round, orbit the sun, and dominate the neighborhood along its orbit through its gravitational pull.

37. Which statement, if true, would best help to explain why Pluto lost its official designation as a planet?
   a. Its size was significantly smaller than any other designated planet.
   b. Its general orbit contains a greater amount of debris in its path than the other planets.
   c. Its moon was discovered to be merely an asteroid that was captured by Pluto's gravity.
   d. Its orbit around the sun had a greater elliptical shape than the orbits of the other planets.
   e. Its mass is responsible for hydrostatic equilibrium, creating a nearly round shape.
Use the following passage to answer questions 38–40.

Considered one of the great patriots of America’s early history, Patrick Henry was an outspoken leader in every protest against British tyranny and in every movement for colonial rights, openly speaking against the unfair taxation and overly burdensome regulations imposed upon the American colonists by the British Parliament. In March 1775, Patrick Henry urged his fellow Virginians to arm themselves in self-defense. He spoke boldly in Richmond, Virginia, during the meeting of the state legislature. He closed that famous speech with the immortal words, “I know not what course others may take; but as for me, give me liberty or give me death.” Patrick Henry later served as the first governor of the great state of Virginia, then again as its sixth governor five years later.

38. The author provides a Patrick Henry quote from the state legislature in order to
a. illustrate the level of bravery of one of the country’s founding fathers.
b. describe the politician as a tempestuous and fiery leader.
c. demonstrate the leader’s commitment to the struggle against oppression.
d. provide an example of the politician’s unvarying pursuit of power.
e. exhibit the leader’s prowess as a poignant orator.

39. It can be inferred from the passage that Patrick Henry was involved in which of the historic colonial or early American events?
   a. authorship of the United States Constitution
   b. participation in the American Revolution
   c. maintenance of the Stamp Act
   d. appeal of the Bill of Rights
   e. secession of the Confederacy

40. Which statement best describes the primary purpose of the passage?
   a. to define the events leading up to the American Revolution
   b. to describe the role one man had in the formation of his country
   c. to compare Patrick Henry with the other great patriots of the time
   d. to illustrate the staying power and impact of a well-constructed quotation
   e. to examine the British injustices that led directly to the Revolution

Skills Test in Mathematics

1. In Mr. Cortez’s swim class, \( \frac{1}{5} \) of the students are age nine, and the remaining students are age eight. Once students can tread water for two minutes they are said to be “guppy” level; age is not a factor in this test. \( \frac{1}{6} \) of all the students have reached this level. What is the best estimate of the fraction of students in this class that are eight-year-old “guppies”?
   a. \( \frac{1}{40} \)
   b. \( \frac{2}{13} \)
   c. \( \frac{1}{10} \)
   d. \( \frac{5}{13} \)
   e. \( \frac{13}{40} \)

2. Approximately 9.8 million people live in Los Angeles County, according to the U.S. Census Bureau. One source believes that there are approximately 1.8 cars per person in Los Angeles County. Given this information, what is the best estimate of the total number of cars in Los Angeles County?
   a. 17,640
   b. 176,400
   c. 1,764,000
   d. 17,640,000
   e. 176,400,000