

Grammar

Part 1

1- Mainly important for its electrical properties, selenium can be used _____ light to electric current in photocells.

- A) to convert
- B) for conversion
- C) and converting
- D) converts

2- _____ a character in a play stands alone on the stage and utters his or her thoughts aloud, the character is delivering a soliloquy.

- A) By
- B) Is
- C) Which
- D) When

3- Like bacteria, protozoans _____ by splitting in two.

- A) reproducing
- B) reproduce
- C) to reproduce
- D) reproduction

4- Vermont declared itself _____ on January 15, 1777, and adopted its constitution on July 8 of the same year.

- A) a free and independent republic
- B) because a free and independent republic
- C) a free and independent republic was
- D) why it was a free and independent republic

5- Some ecologists believe _____ more than 50 percent of existing species will be lost in the next 100 years.

- A) because
- B) that
- C) while there is
- D) that there are

6- Constituting one of the earliest engineering techniques, _____ in Paleolithic times was done in order to extend natural caves.

- A) tunnels were built
- B) which built tunnels
- C) the building of tunnels
- D) tunnels whose building

7- The total number of bones in any animal varies with the age of the animal, since many bones join together_____the ossification process.

- A) during
- B) meanwhile
- C) it is to be
- D) when

8- Over the centuries,_____ that try to explain the origins of the universe.

- A) although many theories
- B) many theories
- C) have many theories been
- D) there have been many theories

9- The field of microbiology was rounded out in the 1930s with the development of the electron microscope, which made_____observation of viruses.

- A) possible the
- B) it was possible to
- C) it possible that
- D) possible that was the

10- Pikes Peak was named for Zebulon Pike,_____described it.

- A) is the explorer who
- B) the explorer who
- C) the explorer is who
- D) who is the explorer

11- Drinking water_____excessive amounts of fluorides causes the enamel of teeth to become brittle and to chip off, leaving a stained or mottled effect.

- A) containing
- B) in which containing
- C) contains
- D) that is contained

12- In prehistoric times, the region comprising_____Illinois and other states in the Mississippi Valley was covered at different periods by shallow seas.

- A) it is now
- B) that is it now
- C) what is now
- D) now is that

13- Gwendolyn Brooks was the first Black woman_____the Pulitzer Prize for poetry.

- A) to win
- B) which she won
- C) won
- D) was to win

14- Type metal used in the printing industry varies in its components _____ is generally a combination of lead, tin, and antimony.

- A) as
- B) if
- C) why
- D) but

15- A computer is a fast electronic machine _____ information according to a stored sequence of instructions called a program.

- A) processes
- B) that processes
- C) that it processes
- D) that processes it

Part 2

16- Paleontologists have examined fossil embryos and hatchlings from three type of duck-billed dinosaurs to figure out how they matured.

17- Bacterial cultures are used commercially in the preparation of food products such that yogurt, sour cream, and vinegar.

18- Painters have been portraying the sea for centuries, and in the United States a rich tradition of marine painting been developed during the nineteenth century.

19- Some advantages of celluloid are that it is inexpensive and durable, takes a highly polish, does not warp or discolor, and is not affected by moisture.

20- The separation of verbal from nonverbal communication in the context of conversation is actually a false distinction — they work together to communicate a messages.

21- Since canals overcome such natural obstacles as rapids and waterfalls, these waterways make travel easier, safety, and quicker for ships.

22- The metropolitan area of Boston is one of the most largest centers for banking and insurance in the northeastern United States.

23- In 1868, with the publish of the first volume of Little Women, Louisa May Alcott became a celebrated writer.

24- Most fish swim by moving their tails from side to side, with little relatively body undulation.

25- A hard, silver-gray metal, cobalt close resembles iron and nickel in its appearance, properties, and behavior.

26- Physical optics deals with the origin, natural, and properties of light, while physiological optics deals with the role of light in vision.

27- At any one time as much as 2,000 thunderstorms may occur in widely scattered locations around the world.

28- Infestation by the tiny insects known as aphids not only stunts plant growth and transmits plant diseases, but also deform leaves, buds, and flowers.

29- The pelican is a water bird with a large pouch attached to its bill, which it uses as a scoop for catch small fish.

30- Approximately four percent of human body weigh is made up of fat in the organs, skeletal muscles, and central nervous system.

31- The important of analytic geometry is that it enables a mathematician to interpret an algebraic equation geometrically and to discuss geometric curves algebraically.

32- Many films produced in the United States during the 1930s were set in the American Civil War period and the years following them.

33- Almost every the hereditary material of an individual organism resides in the chromosomes.

34- Annually in the United States, paper currency with a face value of more than \$35 billion is been printed, averaging about 16 million notes a day.

35- Cognitive psychology, the study of human activities related to knowledge, arose partly as a react to behaviorism.

36- In 1923 Alice Paul began campaign to promote the adoption of an amendment to the United States Constitution mandating equal rights for women.

37- A bridge built over dry land or a wide valley and consisting of a number of small spans is usually referring to as a viaduct.

38- Many folk songs were originated to accompany manual work or to mark a specific ceremonies.

39- The piano playing of jazz musician Thelonious Monk was characterized by complex rhythms and by dissonances sharp.

40- The early Apaches, a group of Native Americans of the southwestern United States, were primarily hunting of buffalo, but they also practiced farming.

Answer key (según yo)

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

Reading

Text 1

Questions 1-11

The tipi, which was used by the Indian peoples of the North American Plains, is the most **ingenious** conical tent ever devised. Because they led a nomadic existence much or all of the year, Plains Indians invented a frame system of wood poles that enabled them to pitch a tent quickly. They also tilted the pole frame backward, giving the tipi an asymmetrical shape that improved its ability to resist wind and increased the usable space inside. Moreover, Plains Indians devised a ventilation system that freed the interior of smoke, the greatest problem in other conical tents, and with the addition of a lining, they could often keep the interior warm and draft-free.

The first written reports of tipis, which are from the 1540 expedition of the Spanish explorer Coronado, told of villages of buffalo-skin-covered conical tents that, when disassembled, were moved from place to place by dogs. It appears that most of the **essential** tipi characteristics existed at that time. A circle of stones known as a tent ring was placed around the perimeter of a tipi to hold down its cover in the wind. Archeologists know from the **remains of ancient tent rings** that tipis then were small, averaging little more than twelve feet in diameter. The tipis of this era were used only part of the year-winters were spent in earthen lodges.

Once Spanish explorers introduced the horse into America, the tipi became larger (the horse could carry the longer poles required for a larger tipi), and its territory expanded. The tipi spread far because there was always a ready supply of buffalo skins for the cover and because **it** could be used in just about any terrain or climate. It could also take advantage of the shelter offered by the environment at different times of the year. This **feature** was especially important in winter, when the tipi's insulation was sometimes insufficient to keep the interior warm. Although the earthen lodge offered **superior** protection from the elements-being both cooler in summer and warmer in winter-the tipi could be moved into the shelter of forests in winter and into cool, windswept places in summer.

1- The word "ingenious" is closest in meaning to

- A. familiar
- B. widely used
- C. comfortable
- D. clever

2- According to the first paragraph, what was one effect of tilting the pole frame of the tipi backward?

- A. It held the tipi in a perfect circle on the ground.
- B. It increased the amount of space in the interior of the tipi.
- C. It freed the interior of smoke.
- D. It reduced the time needed to construct the tipi.

- 3- What aspect of tipis does the first paragraph mainly discuss?
- A. The design elements that made tipis useful
 - B. The cultural factors that led to changes in the tipi design
 - C. The influence of tipi design on other conical tents
 - D. The different types of tipis used by Plains Indians
- 4- The word "essential" is closest in meaning to
- A. smaller
 - B. various
 - C. important
 - D. permanent
- 5- The passage mentions "the remains of ancient tent rings" in order to
- A. explain how the size of ancient tipis has been determined.
 - B. comment on a characteristic mentioned in the first written reports on tipis
 - C. prove that ancient tipis were completely disassembled before being moved
 - D. prove that the first tipis were built many years before Coronado's expedition
- 6- The second and third paragraphs suggest that before the introduction of horses into America, tipis
- A. were protected by dogs
 - B. were covered by different material
 - C. were smaller in size
 - D. were used mainly in winter
- 7- The word "it" refers to
- A. tipi
 - B. supply
 - C. cover
 - D. terrain
- 8- The word "feature" is closest in meaning to
- A. protection
 - B. characteristic
 - C. important
 - D. difference
- 9- The word "superior" is closest in meaning to
- A. appropriate
 - B. complete
 - C. better
 - D. flexible

10- According to the third paragraph, which of the following was NOT a reason why tipis were used over a large geographic area?

- A. The skins used to cover tipis were easily available.
- B. The insulation of tipis kept the interior warm.
- C. Tipis could be used on almost any kind of land.
- D. Tipis were suitable for most weather conditions.

11- According to the third paragraph, how did winter affect the way Plains Indians used their tipis?

- A) They used larger tipis.
- B) They covered the tipis with more buffalo skins.
- C) They added insulation from wood collected in forests.
- D) They located their tipis in wooded areas.

Text 2

Questions 12-20

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

The ever-watchful plover can detect a possible threat at a considerable distance. When she does, the nesting bird moves inconspicuously off the nest to a spot well away from eggs or chicks. At this point she may use one of several ploys. One technique involves first moving quietly toward an approaching animal and then setting off noisily through the grass or brush in a low, crouching run away from the nest, while **emitting** rodent-like squeaks. The effect mimics a scurrying mouse or vole, and the behavior rivets the attention of the type of predators that would also be interested in eggs and chicks.

Another deception begins with quiet movement to an exposed and visible location well away from the nest. Once there, the bird pretends to incubate a brood. When the predator approaches, the parent flees, leaving the false nest to be searched. The direction in which the plover "escapes" is such that if the predator chooses to follow, it will be led still farther away from the true nest.

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

12- What does the passage mainly discuss?

- A. The nest-building techniques of plovers
- B. How predators search for plovers
- C. The strategies used by plovers to deceive predators
- D. Why plovers are vulnerable to predators

13- The word "merely" is closest in meaning to

- A. often
- B. only
- C. usually
- D. at first

- 14- Which of the following is mentioned in the passage about plovers?
- A. Their eggs and chicks are difficult to find.
 - B. They are generally defenseless when away from their nests,
 - C. They are slow to react in dangerous situations.
 - D. Their nests are on the surface of the ground.
- 15- The word "emitting" is closest in meaning to
- A. bringing
 - B. attracting
 - C. producing
 - D. minimizing
- 16- In the deception technique described in the second paragraph, the plover tries to
- A. stay close to her nest
 - B. attract the predator's attention
 - C. warn other plovers of danger
 - D. frighten the approaching predator
- 17- According to the passage, female plover utilizes all of the following deception techniques EXCEPT
- A. appearing to be injured
 - B. sounding like another animal
 - C. pretending to search for prey
 - D. pretending to sit on her eggs
- 18- The word "spanning" is closest in meaning to
- A. covering
 - B. selectina
 - C. developing
 - D. explaining
- 19- The word "pursue" is closest in meaning to
- A. catch
 - B. notice
 - C. defend
 - D. chase
- 20- Which of the following best describes the organization of the passage?
- A. A description of the sequence of steps involved in plovers' nest building
 - B. A generalization about plover behavior followed by specific examples
 - C. A comparison and contrast of the nesting behaviors of plovers and other ground-nesting birds
 - D. A cause-and-effect analysis of the relationship between a prey and a predator

Text 3

Questions 21-29

Wind instruments, such as the flute, were popular throughout prehistoric times. Still, their history becomes difficult to trace with the rise of the major urban civilizations of Asia and Africa in the fourth millennium B.C. Strangely, this is not due to a lack of evidence but to too much of a certain kind-while excavated examples of musical instruments from such an early date still remain rare, the pictorial record derived from sculpture, decorated pottery, and wall paintings suddenly blossoms around 3000 B.C., when scenes depicting musicians playing a wide range of new instruments begin to appear in abundance. However, it is often difficult to tell exactly what is being played, particularly where wind instruments are concerned.

An example of this difficulty is found in the carvings on a stone vessel from Bismaya, in Iraq, dating from about 2600B.C. They show a group of musicians, one of whom is blowing down into an instrument that looks like a modern oboe. This has sometimes been held to be the earliest depiction of a reed instrument. Whereas flutes are played by blowing across a hole, reed instruments are played by blowing straight down into them, the note being produced by the vibration of a reed or other sharp edge near the mouthpiece or within the tube that forms the body of the instrument. However, the Bismaya "pipe" could just as easily be a trumpet, a wind instrument that works on a different principle, since the vibration is produced by the trumpeter's lips pressed against the mouthpiece.

Even depictions of flutes can be rather difficult to interpret. Some flutes can be played by holding them vertically and blowing right across the top, so they can look like pipes or trumpets in pictorial evidence. Fortunately, in some cases the evidence is clear. The Egyptians had "transverse" flutes, held horizontally and played like the modern orchestral instrument by blowing across a hole in the side, according to tomb paintings from as early as the Middle Kingdom (circa 2040B.C. to 1780 B.C.). Some were well over two feet long and, to judge from the paintings, involved considerable arm stretching to play.

21- What does the passage mainly discuss?

- A. Difficulties in interpreting artistic images of ancient musical instruments
- B. The role of music in ancient Asian and African civilizations
- C. Reasons that flutes were more widely represented than other wind instruments in ancient art
- D. The excavation of ancient musical instruments

22- The word "popular" is closest in meaning to

- A. primitive
- B. fragile
- C. widespread
- D. consistent

23- The word "blossoms" is closest in meaning to

- A. specializes
- B. adjusts
- C. divides
- D. flourishes

24- According to the first paragraph, why is establishing the early history of wind instruments from the pictorial record so complex?

- A. It is difficult to determine what types of wind instruments are being portrayed.
- B. The depictions seem to contradict evidence from excavated instruments.
- C. There are few depictions of wind instruments being played.
- D. Wind instruments were relatively rare in the fourth millennium B.C.

25- Which of the following can be inferred from the second paragraph about the oboe?

- A. It may have been brought to Iraq from elsewhere.
- B. Researchers doubt that it was the first wind instrument invented.
- C. It is easier to play than the trumpet.
- D. It is a reed instrument.

26- According to the third paragraph, the ancient Egyptian flutes depicted in artworks were probably similar to modern flutes because they

- A. were fairly long
- B. were played primarily in orchestras
- C. had the same number of holes
- D. were held in similar positions to play

27- Why does the author mention "the Middle Kingdom"?

- A. To explain the relationship between a society and its music
- B. To cite the location where some flutes were excavated
- C. To provide an approximate date for some artistic evidence about flutes
- D. To give an example of the use of flutes in ancient royal ceremonies

28- The word "considerable" is closest in meaning to

- A. apparent
- B. significant
- C. occasional
- D. complicated

29- In discussing ancient instruments, the passage mentions all of the following EXCEPT

- A. the reasons flutes were more common than trumpets
- B. the pictorial evidence about ancient instruments
- C. different methods of producing sound
- D. examples of instruments that are easy to identify

Text 4

Questions 30-40

Auroras, also known as the northern or southern lights, are displays of colored light in the night sky that occur primarily in high latitudes of both the Northern and Southern Hemispheres. They are among the most awesome phenomena visible on Earth. A typical display in the polar regions **commences** with a greenish-white light stretching from horizon to horizon across the sky. Bright beads of light run from one end to another at tremendous speed, while their shimmering pathway vibrates **like a plucked guitar string**.

Change is the only constant in this natural light show. Within seconds the configuration and colors of the aurora can change drastically, either subsiding to a dim glow or growing into massive curtains of light that seem to sway on an unseen wind. Whites tinged with greens and blues are the most common colors, but occasionally there are **eerie** red auroras.

Although **predominantly** polar phenomena, the northern lights have been observed as far south as the equator. When, during the last two centuries, particularly strong auroras have appeared over populated areas, **they** have created havoc. In 1859 one of the strongest auroras on record knocked out telegraph communication in many areas of Europe by producing a continuous attraction that overwhelmed the pulses of electromagnets. In the United States it was possible to send telegrams from Boston to Portland, Maine, using only the power that accompanied the aurora.

It was first realized in 1859 that it is not ice, nor radium, but **mighty** explosions on the Sun that light the northern lights. The link between the Sun's surface and Earth's sky is the "solar wind," a continuous flow of charged subatomic particles from the Sun that streams around Earth. When the solar wind passes through Earth's upper atmosphere, it generates electrical energy. The greenish-white color of most auroras is no mystery; it is the color given off by oxygen when ionized.

The electromagnetic bands that generate the auroras are in the thermosphere, a region of the upper atmosphere about 65 miles above sea level; viewed from space, the auroras appear as halos around their respective poles. They may expand in diameter and distance from the poles, but they are almost always present.

30- What does the passage mainly discuss?

- A. Changes in the night sky that first became visible in 1859
- B. Colored light that appears in the sky when solar wind reaches Earth's atmosphere
- C. Effects of the northern and southern lights on communications technology
- D. Past theories that attempted to explain the cause of the auroras

- 31- The word "commences" is closest in meaning to
- A. brightens
 - B. begins
 - C. expands
 - D. bursts
- 32- Why does the author use the phrase "like a plucked guitar string"?
- A. To indicate the physical mechanism that produces auroras
 - B. To describe the sound effects that accompany auroras
 - C. To point out similarities between guitar sounds and visual patterns in an aurora
 - D. To help the reader visualize the movement of light in an aurora
- 33- The word "eerie" is closest in meaning to
- A. strange
 - B. beautiful
 - C. random
 - D. active
- 34- According to the second paragraph, which of the following is the LEAST commonly seen color in an aurora?
- A. White
 - B. Green
 - C. Red
 - D. Blue
- 35- The word "predominantly" is closest in meaning to
- A. probably
 - B. occasionally
 - C. mostly
 - D. clearly
- 36- The word "they" refers to
- A. polar phenomena
 - B. two centuries
 - C. strong auroras
 - D. populated areas
- 37- The word "mighty" is closest in meaning to
- A. dangerous
 - B. perhaps
 - C. continuous
 - D. powerful

- 38- The passage suggests that before 1859 some people believed that auroras
- A. were supernatural events
 - B. were caused by explosions on the Sun
 - C. might be caused by ice
 - D. might be increasing in strength
- 39- According to the fourth paragraph, what causes auroras to be greenish white in color?
- A. Sunlight reflecting on polar ice
 - B. Fire from solar wind
 - C. Electrical energy generated by radium in Earth's atmosphere
 - D. The process of creating ionized oxygen
- 40- What relationship does the thermosphere have with auroras?
- A. The thermosphere makes auroras invisible from space.
 - B. The thermosphere generates explosions that result in auroras.
 - C. The thermosphere supplies the heat necessary to produce auroras.
 - D. The thermosphere contains the electromagnetic bands that produce auroras.

Text 5

Questions 41-50

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

Explanations of animal behavior that leave out any sort of consciousness at all and **ascribe** actions entirely to instinct leave many questions unanswered. One example of such unexplained behavior: Honeybees communicate the sources of nectar to one another by doing a dance in a figure-eight pattern. The orientation of the dance conveys the position of the food relative to the Sun's position in the sky, and the speed of the dance tells how far the food source is from the hive. Most researchers assume that the ability to perform and encode the dance is innate and shows no special intelligence. But in one study, when experimenters kept changing the site of the food source, each time moving the food 25 percent farther from the previous site; foraging honeybees began to anticipate where the food source would appear next. When the researchers arrived at the new location, they would find the bees circling the spot, waiting for their food. No one has yet explained how bees, whose brains weigh four ten-thousandths of an ounce, could have inferred the location of the new site.

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

41- What does the passage mainly discuss?

- A. The role of instinct in animal behavior
- B. Observations that suggest consciousness in animal behavior
- C. The use of food in studies of animal behavior
- D. Differences between the behavior of animals in their natural environments and in laboratory experiments

42- The word "cautious" is closest in meaning to

- A. careful
- B. certain
- C. encouraged
- D. serious

- 43- Which of the following is NOT discussed as an ability animals are thought to have?
- A. Selecting among choices
 - B. Anticipating events to come
 - C. Remembering past experiences
 - D. Communicating emotions
- 44- The word "ascribe" is closest in meaning to
- A. clarify
 - B. attribute
 - C. promote
 - D. eliminate
- 45- What did researchers discover in the study of honeybees discussed in the second paragraph?
- A. Bees are able to travel at greater speeds than scientists thought.
 - B. The bees could travel 25 percent farther than scientists expected.
 - C. The bees were able to determine in advance where scientists would place their food.
 - D. Changing the location of food caused bees to decrease their dance activity.
- 46- It can be inferred from the passage that brain size is assumed to
- A. be an indicator of cognitive ability
 - B. vary among individuals within a species
 - C. be related to food consumption
 - D. correspond to levels of activity
- 47- Why are otters and mussel shells included in the discussion in the third paragraph?
- A. To provide an example of tool use among animals
 - B. To prove that certain species demonstrate greater ability in tool use than other species
 - C. To compare the cognitive abilities of otters and chimpanzees
 - D. To indicate the advantages of studying animals in their natural environments rather than in the laboratory
- 48- It can be inferred from the statement about mother chimpanzees and their young that young chimpanzees have difficulty
- A. communicating with their mothers
 - B. adding quantities
 - C. making choices
 - D. opening hard nuts
- 49- The phrase "the one" refers to the
- A. study
 - B. pair
 - C. chimpanzee
 - D. ability

50- Scientists concluded from the experiment with chimpanzees and chocolate chips that chimpanzees

- A. lack abilities that other primates have
- B. prefer to work in pairs or groups
- C. exhibit behavior that indicates certain mathematical abilities
- D. have difficulty selecting when given choices

Answer key (100%)

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

47. A

48. D

49. B

50. C