Section 3: Reading Comprehension

Time: 55 Minutes

Directions: In this section you will read several passages. Each one is followed by several questions about it. For questions 1-50, you are to choose the **one** best answer, (A), (B), (C), or (D), to each question. Then, on your answer sheet, find the number of the question and fill in the space that corresponds to the letter of the answer you have chosen.

Answer all questions following a passage on the basis of what is **stated** or **implied** in that passage.

Read the following sample passage:

The railroad was not the first institution to impose regularity on society, or to draw attention to the importance of precise timekeeping. For as long as merchants have set out their wares at daybreak and communal festivities have been celebrated, people have been in rough agreement with their neighbors as to the time of day. The value of this tradition is today more apparent than ever. Were it not for public acceptance of a single yardstick of time, social life would be unbearably chaotic: the massive daily transfers of goods, services, and information would proceed in fits and starts; the very fabric of modern society would begin to unravel.

Example I **Sample Answer** Ⓐ Ⓑ ● Ⓓ

What is the main idea of the passage?

(A) In modern society we must make more time for our neighbors.
(B) The traditions of society are timeless.
(C) An accepted way of measuring time is essential for the smooth functioning of society.
(D) Society judges people by the times at which they conduct certain activities.

The main idea of the passage is that societies need to agree about how time is to be measured in order to function smoothly. Therefore, you should choose (C).

Questions 1-10

The first maps of Venus were made using radar beams transmitted from Earth. Radar was the only way to map its surface, because the clouds on Venus are so thick that the surface cannot be seen through them. The results of these early attempts at mapping were relatively crude and difficult to interpret, although the regions known as Alpha and Beta Regiones were discovered.

The first direct view of the surface came from probes, which were landed on Venus in 1975 by the spacecraft Venera 9 and 10, and showed a dry rock-strewn surface.

Maps of the surface improved dramatically in 1978, when the Pioneer-Venus 1 spacecraft went into orbit around Venus, equipped with a radar altimeter. It showed huge rolling plains stretching right around the planet, some lowland areas, and two highland regions called Ishtar and Aphrodite. The peaks of the highest mountains, Maxwell Montes, in the eastern part of Ishtar, were found to be 12,000 meters above the general surface level, so they are appreciably higher than the Himalayas. Aphrodite, which is larger than Ishtar, has a vast rift valley at its eastern end nearly 3,000 meters deep, 2,200 kilometers long, and 280 kilometers wide. Two shield volcanoes, broad volcanoes formed of successive outpourings of lava, which are much larger than any found on Earth, were also found isolated from the two upland areas. Six years later a great many impact craters and small volcanoes were found by Venera 15 and 16 orbiters.

Later yet, the Magellan spacecraft entered orbit around Venus in August 1990, and over the next two years completed a detailed radar mapping of the surface. It found that the surface is mostly volcanic, with large lava-flooded plains and thousands of volcanoes. There are also signs of tectonic activity, which has caused, for example, multiple faulting and deep fractures. There are a number of rift valleys, some of which have been partly flooded by molten lava, and a number of impact craters, the density of which has enabled the ages of various areas to be estimated. The absence of impact craters in an area suggests an age of no more than a few tens of millions of years.

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1. The passage mainly discusses how
   (A) radar technology improved over time
   (B) the surface of Venus compares to Earth's surface
   (C) the age of Venus was determined scientifically
   (D) knowledge about the surface of Venus was obtained

2. The passage mentions that radar beams were used to obtain the first maps of Venus because they
   (A) allowed for mapping more than the two regions already familiar to scientists
   (B) could penetrate the clouds that concealed the surface of Venus
   (C) were the least expensive method of mapping at the time
   (D) could be transmitted easily from Earth

3. The word "equipped" in line 9 is closest in meaning to
   (A) selected
   (B) adjusted
   (C) inspected
   (D) furnished

4. The author discusses Maxwell Montes together with the Himalayas in the passage in order to
   (A) indicate their similar composition
   (B) establish the height of Maxwell Montes
   (C) indicate that the terrain on Earth resembles the terrain on Venus
   (D) compare the origins of the two mountain ranges

5. The word "appreciably" in line 13 is closest in meaning to
   (A) surprisingly
   (B) probably
   (C) noticeably
   (D) consistently

6. The word "vast" in line 14 is closest in meaning to
   (A) extensive
   (B) remote
   (C) obvious
   (D) raised

7. The word "isolated" in line 17 is closest in meaning to
   (A) surrounded
   (B) separated
   (C) accumulated
   (D) elevated

8. Pioneer-Venus 1 discovered that Venus had all of the following features EXCEPT
   (A) impact craters
   (B) lowlands
   (C) mountains
   (D) shield volcanoes

9. The Magellan spacecraft discovered that <u>most</u> of the surface of Venus is covered with
   (A) faults and fractures
   (B) rift valleys
   (C) lava and volcanoes
   (D) impact craters

10. It can be inferred from the passage that scientists use the density of impact craters on Venus to determine which of the following?
   (A) The cause of the faults and fractures
   (B) The age of different areas of the planet's surface
   (C) The areas that are most geologically active
   (D) The amount of flooding of rift valley areas

Questions 11-19

In the United States, many social reformers in the late nineteenth century demonstrated a concern for improved housing conditions for workers. George Pullman (1831-1897), the wealthy industrialist who introduced luxury railway cars with beds, built his model city called Pullman in 1880 to address housing problems caused by Chicago's industrialization. In constructing the town, Pullman hoped to produce an ideal environment that would help attract workers of a superior type to the railway car industry and retain them. Pullman inhabitants were expected to embody values of thrift, industry, and morality. They were taught to develop propriety and good manners, cleanliness and neatness of appearance, diligence, and self-improvement through education and savings. Like the brick clock tower that dominated the town center, Pullman kept a regulatory eye on his workers.

In its first five years, this new experiment in industrial life received little criticism, except from radical political groups. Crediting the town of Pullman with producing a new type of dependable and ambitious worker in a rationally ordered environment, reformers, at first, praised it as a successful model for modern industrial life. However, after 1885, with the high gloss of the experiment dulled, it became clear that the residents of Pullman had honest grievances about the overcharging of rent and other services.

In 1893, The World's Columbian Exposition, an exhibition that aimed to promote American cultural, economic, and technological development, and in which George Pullman was a major investor, was held in Chicago. The town of Pullman became a popular tourist stop, attracting more than its share of curious travelers. There were 10,000 foreign visitors alone during the exposition year. In fact, the first *Baedeker Travel Guide to the United States* advised visitors to tour Pullman. Frequent trains and trolley cars connected the fairgrounds of the exposition with the town, and on several occasions, George Pullman himself guided the tours. Constructing a fantastic environment for the benefit of tourists, he made sure that any real tensions between his office and the working inhabitants of the town were rendered invisible to the tourist gaze.

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11. What does the passage mainly discuss?

(A) The effect of industrialization on the city of Pullman
(B) The model city built by George Pullman
(C) The career of George Pullman
(D) Housing problems in the nineteenth century

12. According to the passage, which of the following led to the creation of the town of Pullman?

(A) A surplus of railway workers in Chicago
(B) Housing problems caused by industrialization
(C) George Pullman's decision to stop producing railway cars
(D) The opening of the World's Columbian Exposition

13. According to the passage, George Pullman expected that the city of Pullman would

(A) impress social reformers
(B) satisfy radical political groups
(C) soon develop housing problems
(D) draw workers to the railway car industry

14. The word "retain" in line 7 is closest in meaning to

(A) house
(B) train
(C) keep
(D) reward

15. According to the passage, Pullman inhabitants were taught to do all of the following EXCEPT

(A) have good manners
(B) become active in town politics
(C) value education
(D) save money

16. What does the author imply about George Pullman's attitude toward his workers in line 11 ?

(A) Pullman believed that his workers should follow a strict daily schedule.
(B) Pullman felt that his workers required careful monitoring and supervision.
(C) Pullman thought that individual workers could be taught to work together as a team.
(D) Pullman believed that his workers had trouble keeping track of the time they spent on a task.

17. The word "grievances" in line 17 is closest in meaning to

(A) stories
(B) opinions
(C) findings
(D) complaints

18. According to the passage, what did George Pullman do to promote tourism in the town of Pullman?

(A) He personally showed tourists around the town.
(B) He published a travel guide to the town.
(C) He started to invest in the town's cultural development.
(D) He built a new road connecting it to the World's Columbian Exposition.

19. The passage suggests that George Pullman worked to hide which of the following from tourists?

(A) His role as an investor in the World's Columbian Exposition
(B) His conflicts with the inhabitants of the town of Pullman
(C) His efforts to promote the town of Pullman
(D) His lack of knowledge about how the inhabitants of Pullman really lived

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Questions 20-29

In the 1820s, the exhaustion of commercial oyster beds along the northeastern coast set the stage for the industry that would shift the Chesapeake Bay region located in the southern state of Maryland forever from an underdeveloped subsistence economy, and define its culture for the next 150 years. In the early nineteenth century, the Chesapeake oyster beds, perhaps the world's richest trove of the shellfish, were discovered. Following the Civil War in 1865, the exploitation built to the fever pitch of a gold rush. More than 1,000 sail craft, including four-masted schooners, sloops, pungeys, and bugeyes, dragged heavy iron dredges ceaselessly across the "rocks," as the reeflike agglomerations of the shellfish were called, catching oysters by the hundreds of bushels a day.

At the height of this activity, the Chesapeake region probably was less isolated than at any time in its history, including present times. In 1886, the oyster harvest peaked in Maryland at some 15 million bushels, an annual production of edible meat equal to the yield from 160,000 head of cattle. The oyster fleet employed a fifth of everyone involved in fishing in the United States. Oyster captains ruled the waves, outgunning attempts to enforce even modest conservation by the Maryland Oyster Navy, charged with policing the oyster beds. On the positive side, the oyster industry of this era used its political clout to force the nearby city of Baltimore to construct the nation's most modern sewage treatment plant to protect the water quality of the bay. So intense was the oystering that it eventually altered the physical shape of the bay's bottom, breaking apart the reefs in which oysters naturally grew. Studies comparing old charts of the bay bottom to new bathymetric surveys have found a dramatic flattening of original bottom contours. This made oysters more susceptible to silting over, and perhaps more vulnerable to the diseases that now plague them—though this latter is still speculative.

As harvests slid from the unsustainable peaks of the 1880s never to return, people involved in harvesting oysters sought an easy-to-build, cheaper alternative to the big sail dredge craft which would require fewer crew. What evolved was a beamy vessel, usually 38 to 55 feet long, the bottom made with simple crosswise planking. It could be built by a good backyard carpenter, and hundreds were.

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20. What does the passage mainly discuss?

(A) The oyster industry in the Chesapeake Bay region
(B) The subsistence economy of the Chesapeake Bay region
(C) The exhaustion of commercial oyster beds along the northeastern coast
(D) Sail craft used in the fishing industry of the nineteenth century

21. The word "its" in line 4 refers to

(A) the northeastern coast
(B) Maryland
(C) subsistence economy
(D) the Chesapeake Bay region

22. The author mentions "a gold rush" in line 7 in order to

(A) illustrate that oysters were very expensive
(B) imply that oystering had a greater impact on Maryland's economy than mining gold
(C) explain that the new oyster beds were discovered while deposits of gold were being studied
(D) compare the exploiting of the new oyster beds with the excitement of discovering gold

23. According to the passage, what year was the Chesapeake Bay oyster harvest the largest?

(A) 1820
(B) 1865
(C) 1880
(D) 1886

24. The word "clout" in line 18 is closest in meaning to

(A) belief
(B) influence
(C) information
(D) division

25. According to the second paragraph, which of the following was a beneficial effect of the oyster industry?

(A) Oyster fleets increased pay for fishers by one-fifth.
(B) Baltimore constructed a modern sewage treatment plant to keep the Chesapeake Bay clean.
(C) Conservation measures were enforced to protect the reefs where oysters grew.
(D) The people of Maryland gained access to a more nutritious diet including a large quantity of oyster meat.

26. According to the second paragraph, which of the following has been revealed by bathymetric surveys of the Chesapeake Bay?

(A) The bottom of the bay has been radically altered by oyster harvesting.
(B) Oysters are still available, but current equipment is unable to harvest them.
(C) Oysters have adapted well to significant changes in their environment.
(D) New reefs have formed for oysters to grow in.

27. The word "speculative" in line 24 is closest in meaning to

(A) radical
(B) popular
(C) theoretical
(D) temporary

28. It can be inferred from the author's description of the beamy vessel in the third paragraph that this boat was

(A) made from planking recovered from old oyster boats
(B) relatively simple in design
(C) rarely used on Chesapeake Bay
(D) able to handle heavy dredges better than earlier boats had

29. It can be inferred from the passage that the Chesapeake Bay oyster beds were similar to the oyster beds along the northeastern coast in that they

(A) were discovered following the Civil War
(B) were fished primarily by large sail craft that were operated by the state government
(C) eventually became less productive than they had been in the past
(D) gradually expanded in spite of diseases carried by polluted waters

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Questions 30-40

Except for flies, all flying insects have two pairs of wings, one of which is attached to the upper mesothorax and the other to the upper metathorax. It is likely that their wings originated as flaps that could be extended from the thorax, allowing wingless insects to escape danger by leaping from an elevated perch and gliding some distance away. Insect wings are unique, having evolved specifically for flight, while the wings of birds and bats are merely modifications of preexisting limbs.

The earliest insects known to be capable of true flight had two pairs of wings that remained extended and did not fold, even when the creature was at rest. Each pair flapped independently of the other pair, a contemporary parallel to this feature being found in the wings of dragonflies, which are members of a primitive but common order of insects. Many advanced insects, such as beetles, butterflies, and wasps, have evolved means to link their forewings and hind wings to form two coordinated flight surfaces rather than four.

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Most insect wings are laced with veins. These are distinct ridges, the pattern of which is often critical to the identification of individual species. The spaces between the veins are called cells; those extending to the wing margin are open cells, and those enclosed by veins on all sides are closed cells. Adult insects that emerge from a pupa have wings that at first look crumpled and useless. Extensions of the tracheal respiratory system run through the veins, and blood circulates in the spaces around the tracheae. As air is pumped through the veins, the wings of these newly emerged insects unfurl and straighten. As the veins harden, they provide both strength and a degree of flexibility, and the wings become capable of sustaining flight.

The veins of the wings tend to be thicker and stronger near the body and along the forward, or leading, edge and thinner and more flexible near the tip and along the trailing edge. The trailing edge curls on both the upstroke and the downstroke, pushing against the air behind it and producing not only lift but forward propulsion and reduced drag.

30. The wings of insects are compared to the wings of birds and bats in terms of

(A) their size
(B) the way they evolved
(C) their point of attachment to the thorax
(D) their role in the survival of the species

31. Which of the following is a characteristic of the earliest insects known to be capable of true flight?

(A) They had one pair of wings.
(B) Their wings were only folded when at rest.
(C) Both pairs of wings moved at the same time.
(D) Their wings were always extended.

32. The author mentions dragonflies in the second paragraph as an example of insects whose wings are

(A) not symmetrical in design
(B) commonly found in advanced insects
(C) similar to those of the earliest insects
(D) capable of circular movements

33. The word "link" in line 12 is closest in meaning to

(A) join
(B) stop
(C) reduce
(D) flatten

34. According to the passage, how do the veins of insect wings differ among species?

(A) Some species do not have spaces between the veins.
(B) Veins are difficult to see in some species.
(C) Different species have different patterns of veins.
(D) Some species do not pump air through the veins.

35. Where can open cells be found?

(A) At the edge of the wings
(B) In the middle of the wings
(C) In the veins
(D) In the blood

36. The word "they" in line 21 refers to

(A) spaces
(B) wings
(C) insects
(D) veins

37. How do the forward and trailing edges of insect wings differ?

(A) There are fewer veins in the trailing edge.
(B) They have veins of different thicknesses.
(C) Only the forward edge produces forward movement.
(D) One curls on the upstroke and the other curls on the downstroke.

38. The word "flexible" in line 24 is closest in meaning to

(A) pointed
(B) weak
(C) able to expand
(D) able to bend

39. Which of the following can be inferred from the passage about the capabilities of an adult insect that has recently emerged from the pupa?

(A) It cannot fly immediately.
(B) It has difficulty breathing.
(C) It uses its wings for balance.
(D) It cannot remain upright.

40. Which of the following aspects of insects that can fly is NOT discussed in the passage?

(A) The origin of their wings
(B) Their movements while in flight
(C) The physical structure of their wings
(D) The speed at which they can fly

Questions 41-50

Viewed from a formalist perspective, art is appreciated for the enlivening aesthetic experience its visual form can provide. The name formalism stems from the primary focus of this perspective on the artistic form of the work: its line, shape, color, texture, and composition. For the formalist, art is to be valued for its artistic qualities, separate from its connection to the larger world. In the case of a film, the viewer would concentrate on its formal qualities (for instance, camera compositions, editing rhythms, settings, lighting effects, dialogue, and sound track) while ignoring the film's contextual relationships to social and political issues. It is believed that such

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"nonartistic" considerations only detract from the aesthetic experience the work's artistic form can provide. Although the formalist approach pares away history, morality, and virtually everything other than color, shape, technique, and composition, this approach does get the viewer to look closely and respond with feeling to the artwork's sensuous qualities.

In contrast to formalism, contextualism is concerned with the appreciation of art "in context," that is, in relation to the rest of life. Like a wide-angle camera shot, contextualism takes in the big picture. Everything that surrounds and relates to the artwork is relevant: the viewer; the artist; the physical setting of the work; and the art, culture, and society that gave birth to it. For the contextualist, a full appreciation of a film is impossible without information about its director and the director's creative process, as well as knowledge about the era and the culture of the country in which the film was made. The strong point of the contextualist approach is its ability to expand the viewer's understanding of the work in relation to the larger world. In contrast to the reductive focus of formalism, contextualism offers the viewer many ways of looking at and giving meaning to the artwork. Its major limitation, the formalists say, stems from its primary concern with facts and theories. They argue that contextualists can often emphasize fact-finding and theorizing to the exclusion of any sensuous response to the work of art.

41. What is the passage mainly about?

(A) Formalist and contextualist issues reflected in visual art
(B) Appreciation of artistic qualities in film
(C) Formalist and contextualist points of view on art
(D) Limitations of modern theories of art

42. According to the first paragraph, a formalist evaluates a work of art in terms of

(A) "nonartistic" considerations that enhance the aesthetic experience of the artwork
(B) purely aesthetic aspects of the artwork
(C) the relationship of the artwork to social and political matters
(D) the historical accuracy of the artist's treatment of the subject of the artwork

43. The first paragraph mentions all of the following as examples of artistic form EXCEPT

(A) texture
(B) color
(C) morality
(D) shape

44. The phrase "concentrate on" in line 6 is closest in meaning to

(A) memorize
(B) focus on
(C) experiment with
(D) criticize

45. Which of the following would most likely be a topic of discussion in a formalist analysis of a painting?

(A) The artistic techniques used in the painting
(B) The social background of the artist
(C) The place where the piece was painted
(D) The impact of the painting on society

46. The author makes a comparison between a "wide-angle camera shot" (line 15) and the way that contextualists

(A) utilize a large range of artistic styles
(B) interpret the formal aspects of art
(C) study various influences on a work of art
(D) emphasize aesthetic experience

47. The word "it" in line 18 refers to

(A) artwork
(B) physical setting
(C) culture
(D) society

48. The word "era" in line 20 is closest in meaning to

(A) character
(B) development
(C) period
(D) role

49. The phrase "stems from" in line 24 is closest in meaning to

(A) grows out of
(B) turns into
(C) runs up against
(D) argues for

50. According to the second paragraph, formalists claim that the weakest aspect of contextualism is which of the following?

(A) Its reductive focus
(B) Its concentration on appealing to the viewer's senses
(C) Its inability to offer a viewer more than one way of looking at art
(D) Its primary concern with facts and theories

This is the end of Section 3.

If you finish in less than 55 minutes, check your work on Section 3 only.

DO NOT read or work on any other section of the test.

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