

Section Three: Reading Comprehension (2)

Question 1-10

Mountaineers have noted that as they climb, for example, up to the 12,633-foot Humphreys Peak in the San Francisco Peaks in Arizona, plant life changes radically. Starting among the cacti of the Sonoran Desert, one climbs into a pine forest at 7,000 feet and a treeless alpine tundra at the summit. It may seem that plants at a given altitude are associated in what can be called “communities” – groupings of interacting species. The idea is that over time, plants that require particular climate and soil conditions come to live in the same places, and hence are frequently to be found together. Scientists who study the history of plant life are known as paleobotanists, or paleobots for short. They build up a picture of how groups of plants have responded to climate changes and how ecosystems develop. But are these associations, which are real in the present, permanent?

A great natural experiment took place on this planet between 25,000 and 10,000 years ago, when small changes in the earth’s orbit and axis of rotation caused great sheets of ice to spread from the poles. These glaciers covered much of North America and Europe to depths of up to two miles, and then, as the climate warmed, they retreated. During this retreat, they left behind newly uncovered land for living things to colonize, and as those living things moved in they laid down a record we can read now. As the ice retreated and plants started to grow near a lake, they would release pollen. Some would fall into the lake, sink to the bottom, and be incorporated into the sediment. By drilling into the lake bottom it is possible to read the record of successive plant life around the lake. The fossil record seems clear; there is little or no evidence that entire groups of plants moved north together. Things that lived together in the past don’t live together now, and things that live together now didn’t live together in the past. Each individual organism moved at its own pace. The fossil record seems to be telling us that we should be thinking about preserving species by giving them room to maneuver – to respond to environmental changes.

1. What is the passage mainly about?
 - (a) The effects of the ice age on plants
 - (b) Plant migration after the ice age
 - (c) The need to develop a new approach to environmental issues
 - (d) Communities of plants live at different altitudes
2. The word “radically” in line 2 is closest in meaning to
 - (a) variably
 - (b) demonstrably
 - (c) quickly
 - (d) dramatically
3. The author mentions “cacti” in line 3 and a “treeless alpine tundra” in line 4 to illustrate
 - (a) changes in climate

- (b) the effects of the ice age
 - (c) communities of plants
 - (d) plant migration
4. The word “which” in line 10 refers to
- (a) the responses of plants to climate changes
 - (b) the current theories of ecosystems
 - (c) the developments of ecosystems
 - (d) plant life changes
5. The word “axis” in line 12 is closest in meaning to
- (a) center
 - (b) method
 - (c) change
 - (d) slowdown
6. The word “successive” in line 19 is closest in meaning to
- (a) extinct
 - (b) consecutive
 - (c) accumulative
 - (d) following
7. The passage states that by drilling into the lake bottom it is possible to find successive fossils of:
- (a) sediment
 - (b) ice
 - (c) plant life
 - (d) pollen
8. Which of the following can be inferred from the passage
- (a) –that the migratory patterns of plants are dependent upon changes in climate
 - (b) –that modern conservation methods should consider the migratory patterns of plants
 - (c) –that current associations of plants are similar to those in the past
 - (d) –that another ice age is likely to occur at some time
9. According to the passage, the movement of individual species of plants
- (a) occurs in groups
 - (b) often depends upon the formation of lakes
 - (c) does not occur in groups
 - (d) depends upon climate and soil conditions

10. All of the following are true except
- (a) The ice age occurred when small changes affected the movement of the earth
 - (b) Fossil records seem to indicate that plants will be preserved if they have sufficient room to move
 - (c) Fossil records clearly show that entire groups of plants are unlikely to have moved together
 - (d) In the ice age glaciers covered the world to depths of up to two miles

Question 11-21

Some pioneering work that began as an attempt to discover ways to increase production efficiency led to the founding of the human relations movement in industry and to the development of motivational skills and tools for managers. In 1927 researchers were involved in determining the optimum amount of lighting, temperature, and humidity (with lighting being considered the most important) for the assembly of electronic components at Western Electric. The researchers found that lighting had no consistent effect on production. In fact, production sometimes increased when lighting was reduced to the level of ordinary moonlight! The important part of this experiment began when two Harvard researchers, Elton Mayo and Fritz Roethlisberger, were brought in to investigate these unexpected results further. They found that workers were responding not to the level of lighting but to the fact that they were being observed by the experimenters.

This phenomenon came to be known as the Hawthorne effect since the experiments were conducted at the Western Electric Hawthorne plant. This was the first documented and widely published evidence of the psychological effects on doing work, and it led to the first serious effort aimed at examining psychological and social factors in the workplace. Further experiments were continued for five years. Generally, the researchers concluded from their experiments that economic motivation (pay) was not the sole source of productivity and, in some cases, not even the most important source. Through interviews and test results, the researchers focused on the effects of work attitudes, supervision, and the peer group and other social forces, on productivity.

Their findings laid the groundwork for modern motivation theory, and the study of human factors on the job, which continues to this day in such common practices as selection and training, establishing favorable work conditions, counseling, and personnel operations. The contributions of this experiment shifted the focus of human motivation from economics to a multifaceted approach including psychological and social forces.

11. What is the passage primarily about?
- (a) The first widely published development in modern motivation theory
 - (b) Shifting the focus of human motivation from economics to a multifaceted approach
 - (c) The importance of careful research
 - (d) The results of a pioneering study at Western Electric
12. The word “optimum” in line 4 is closest in meaning to
- (a) positive

- (b) favorable
- (c) best
- (d) alternate

13. The most significant finding of the original research was
- (a) lighting had no consistent effect on production
 - (b) production sometimes increased when lighting was reduced to the level of ordinary moonlight.
 - (c) that lighting was no more important than the other factors of temperature and humidity.
 - (d) the results were unexpected and confusing.
14. Why does the author say that the important part of this research began when two Harvard researchers were brought in (lines 8-9)
- (a) Until then the research had been poorly conducted
 - (b) They took a multifaceted approach
 - (c) The results of the original research did not make sense
 - (d) Harvard has a good reputation in conducting research
15. The research became known as the “Hawthorne effect” because
- (a) it was the name of the plant where the study was conducted
 - (b) It was the name suggested by the Harvard researchers
 - (c) It was the name of the principal experimenter
 - (d) There were hawthorne plants growing at Western Electric where the study was conducted
16. The word “it” in line 14 refers to
- (a) the experiment
 - (b) economic motivation
 - (c) the Western Electric Hawthorn plant
 - (d) the Hawthorne effect
17. It can be inferred from this passage that the Hawthorne study
- (a) led to lighting, temperature, and humidity no longer being considered important when seeking ways to improve production
 - (b) Stimulated further research into work condition and worker behavior
 - (c) Led to psychological factors becoming the most important consideration in achieving production efficiency
 - (d) Led to economic considerations being less important in achieving productivity
18. Part of the reason for the change in focus from economics to a more multifaceted approach to the psychological effects on doing work was
- (a) due to the recognition that workers should be happy at work in order to maintain high productivity
 - (b) a general conclusion that pay was sometimes not the most important factor

- (c) because the Hawthorne study continued for so long
 - (d) because the workers requested it
19. According to the passage, it can be concluded that a “multifaceted approach” to human motivation in the workplace
- (a) excludes economics
 - (b) can lead to greater productivity
 - (c) excludes physical conditions
 - (d) focuses mainly on psychological and social forces
20. The word “multifaceted” in line 25 is closest in meaning to
- (a) versatile
 - (b) complex
 - (c) many-sided
 - (d) multitude
21. Which of the following is NOT true about the Hawthorne study
- (a) It was the first documented evidence of the psychological effects on doing work
 - (b) The Hawthorne study continued for five years
 - (c) They found that workers responded not to the level of lighting but to the fact that other work conditions were not favorable
 - (d) The study changed the focus from economics to a multifaceted approach

Question 22-31

The handling and delivery of mail has always been a serious business, underpinned by the trust of the public in requiring timeliness, safety, and confidentiality. After early beginnings using horseback and stagecoach, and although cars and trucks later replaced stagecoaches and wagons, the Railway Mail Service still stands as one of America’s most resourceful and exciting postal innovations. This service began in 1832, but grew slowly until the Civil War. Then from 1862, by sorting the mail on board moving trains, the Post Office Department was able to decentralize its operations as railroads began to crisscross the nation on a regular basis, and speed up mail delivery. This service lasted until 1974. During peak decades of service, railway mail clerks handled 93% of all non-local mail and by 1905 the service had over 12,000 employees.

Railway Post Office trains used a system of mail cranes to exchange mail at stations without stopping. As a train approached the crane, a clerk prepared the catcher arm which would then snatch the incoming mailbag in the blink of an eye. The clerk then booted out the outgoing mailbag. Experienced clerks were considered the elite of the Postal Service’s employees, and spoke with pride of making the switch at night with nothing but the curves and feel of the track to warn them of an upcoming catch. They also worked under the greatest pressure and their jobs were considered to be exhausting and dangerous. In addition to regular demands of their jobs they could find themselves the victims of train wrecks and robberies.

As successful as it was, “mail-on-the-fly” still had its share of glitches. If they hoisted the train’s catcher arm too soon, they risked hitting switch targets, telegraph poles or semaphores, which would rip the catcher arm off the train. Too late, and they would miss an exchange.

22. What does the passage mainly discuss?
- (a) How Post Office Trains handled the mail without stopping
 - (b) The skills of experienced clerks
 - (c) How the mail cranes exchanged the mail
 - (d) Improvements in mail handling and delivery
23. The word “underpinned” in line 1 is closest in meaning to
- (a) lowered
 - (b) underlain
 - (c) obliged
 - (d) required
24. The public expects the following three services in handling and delivery of mail except
- (a) confidentiality
 - (b) timeliness
 - (c) safety
 - (d) accuracy
25. According to the passage, the Railway Mail Service commenced in
- (a) 1832
 - (b) 1842
 - (c) 1874
 - (d) 1905
26. Which of the following can be inferred from the first paragraph
- (a) Mail was often lost or damaged as it was exchanged on the mail crane
 - (b) There was a high turnover of railway mail clerks
 - (c) The development of the railroads during the second half of the 19th century enabled Post Office Department to focus on timeliness
 - (d) The Post Office Department was more concerned about speeding up mail delivery than the safety of its clerks
27. The word “elite” in line 14 is closest in meaning to
- (a) superior
 - (b) majority
 - (c) more capable
 - (d) leader
28. Which of the following is true, according to the passage

- (a) The clerk booted out the outgoing mailbag before snatching the incoming bag
- (b) Clerks couldn't often see what they were doing
- (c) The Railway Mail clerk's job was considered elite because it was safe and exciting
- (d) Despite their success railway mail clerks only handled a small proportion of all non-local mail

29. In line 18, the word "they" refers to

- (a) trains
- (b) Postal Service's employees
- (c) Mailbags
- (d) Experience clerks

30. The word "glitches" in line 20 can be replaced by

- (a) accidents
- (b) blames
- (c) advantages
- (d) problems

31. Where in the passage does the author first mention the dangers of the Post Office clerk's job?

- (a) Lines 5-9
- (b) Lines 10-14
- (c) Lines 15-19
- (d) Lines 20-23

Questions 32-40

Amelia Earhart was born in Kansas in 1897. Thirty one years later, she received a phone call that would change her life. She was invited to become the first woman passenger to cross the Atlantic Ocean in a plane. The flight took more than 20 hours – about three times longer than it routinely takes today to cross the Atlantic by plane. Earhart was twelve years old before she ever saw an airplane, and she didn't take her first flight until 1920. But she was so thrilled by her first experience in a plane that she quickly began to take flying lessons. She wrote, "As soon as I left the ground, I knew I myself had to fly."

After that flight Earhart became a media sensation. She was given a ticker tape parade down Broadway in New York and even President Coolidge called to congratulate her. Because her record-breaking career and physical appearance were similar to pioneering pilot and American hero Charles Lindbergh, she earned the nickname "Lady Lindy." She wrote a book about her flight across the Atlantic, called 20 Hrs., 40 Min.

Earhart continued to break records, and also polished her skills as a speaker and writer, always advocating women's achievements, especially in aviation. Her next goal was to achieve a transatlantic crossing alone. In 1927 Charles Lindbergh became the first

person to make a solo nonstop flight across the Atlantic. Five years later, Earhart became the first woman to repeat that feat. Her popularity grew even more and she was the undisputed queen of the air. She then wanted to fly around the world, and in June 1937 she left Miami with Fred Noonan as her navigator. No one knows why she left behind important communication and navigation instruments. Perhaps it was to make room for additional fuel for the long flight. The pair made it to New Guinea in 21 days and then left for Howland Island, a tiny island in the middle of the Pacific Ocean. The last communication from Earhart and Noonan was on July 2, 1937 with a nearby Coast Guard ship. The United States Navy conducted a massive search for more than two weeks but no trace of the plane or its passengers was ever found. Many people believe they got lost and simply ran out of fuel and died.

32. With which of the following subjects is the passage mainly concerned?
- (a) The history of aviation
 - (b) The tragic death of the queen of air
 - (c) Achievements of early aviation pioneers
 - (d) The achievements of a pioneering aviatrix
33. According to the passage, which of the following statements about Earhart is NOT true?
- (a) She wrote a book about her solo nonstop flight across the Atlantic, called 20 hrs., 40 min.
 - (b) In her last adventure, she didn't take communication and navigation instruments by accident, and that led to the tragedy.
 - (c) She is regarded as the female Charles Lindbergh in aviation.
 - (d) She was in her late twenties when she took her first flight.
34. According to the passage, when did Amelia Earhart begin her first flight?
- (a) when she was 12 years old
 - (b) 1920
 - (c) when she first saw an airplane
 - (d) when she started to take flying lessons.
35. The word "sensation" in line 8 is closest in meaning to
- (a) feeling
 - (b) hit
 - (c) excitement
 - (d) perception
36. Amelia Earhart was called "Lady Lindy" because
- (a) she was the undisputed queen of the air.
 - (b) President Coolidge gave her the nickname.
 - (c) she repeated Charles Lindbergh's feat.
 - (d) of her career and her physical resemblance to Lindbergh
37. The word "undisputed" in line 18 is closest in meaning to

- (a) contemporary
- (b) undeceived
- (c) dissipated
- (d) undoubted

38. The word “it” in line 20 refers to

- (a) plane
- (b) communication
- (c) the reason
- (d) aviation.

39. The word “massive” in line 25 is closest in meaning to

- (a) substantial
- (b) general
- (c) large
- (d) careful

40. It may be inferred from the passage that Amelia Earhart

- (a) would not have developed her love of flying if she had not been invited to become the first woman passenger to cross the Atlantic in a plane.
- (b) Would have continued to seek new adventures and records to break if she had not died at the age of 39.
- (c) became too confident and took too many risks to be able to live to old age.
- (d) did not want to return to the United States.

Question 41-50

Music can bring us to tears or to our feet, drive us into battle or lull us to sleep. Music is indeed remarkable in its power over all humankind, and perhaps for that very reason, no human culture on earth has ever lived without it. From discoveries made in France and Slovenia even Neanderthal man, as long as 53,000 years ago, had developed surprisingly sophisticated, sweet-sounding flutes carved from animal bones. It is perhaps then, no accident that music should strike such a chord with the limbic system – an ancient part of our brain, evolutionarily speaking, and one that we share with much of the animal kingdom. Some researchers even propose that music came into this world long before the human race ever did. For example, the fact that whale and human music have so much in common even though our evolutionary paths have not intersected for nearly 60 million years suggests that music may predate humans. They assert that rather than being the inventors of music, we are latecomers to the musical scene.

Humpback whale composers employ many of the same tricks that human songwriters do. In addition to using similar rhythms, humpbacks keep musical phrases to a few seconds, creating themes out of several phrases before singing the next one. Whale songs in general are no longer than symphony movements, perhaps because they have a similar attention span. Even though they can sing over a range of seven octaves, the whales typically sing in key, spreading adjacent notes no farther apart than a scale. They

mix percussive and pure tones in pretty much the same ratios as human composers – and follow their ABA form, in which a theme is presented, elaborated on and then revisited in a slightly modified form. Perhaps most amazing, humpback whale songs include repeating refrains that rhyme. It has been suggested that whales might use rhymes for exactly the same reasons that we do: as devices to help them remember. Whale songs can also be rather catchy. When a few humpbacks from the Indian Ocean strayed into the Pacific, some of the whales they met there quickly changed their tunes – singing the new whales’ songs within three short years. Some scientists are even tempted to speculate that a universal music awaits discovery.

41. Why did the author write the passage?
- (a) To describe the music for some animals, including humans
 - (b) To illustrate the importance of music to whales
 - (c) To show that music is not a human or even modern invention
 - (d) To suggest that music is independent of life forms that use it
42. The word “sophisticated” in line 5 is closest in meaning to
- (a) complex
 - (b) intricate
 - (c) well-developed
 - (d) entangled
43. The word “one” in line 7 can be replaced by
- (a) the chord
 - (b) the left brain
 - (c) the right brain
 - (d) the limbic system
44. According to the passage, which of the following is true of humpback whales
- (a) their tunes are distinctively different from human tunes
 - (b) they can sing over a range of seven octaves
 - (c) they do not use rhyme, unlike humans
 - (d) Whale songs of a particular group cannot be learned by other whales
45. The word “they” in line 18 refers to
- (a) human composers
 - (b) whale songs
 - (c) octaves
 - (d) whales
46. Which of the following is NOT true about humpback whale music?
- (a) It uses similar patterns to human songs
 - (b) It’s comparative in length to symphony movements
 - (c) It’s easy to learn by other whales

- (d) It's in a form of creating a theme, elaborating and revisiting in rhyming refrains

47. The word "refrains" in line 22 is closest in meaning to

- (a) tunes
- (b) notes
- (c) musical phrases
- (d) sounds

48. Which of the following can be inferred from the passage?

- (a) The earliest human beings came from France and Slovenia
- (b) Music helped to shape the whale brain
- (c) Humpback whales imitate the way human composers so in creating their own music
- (d) The research of musical brain will lead to a discovery of a universal music

49. Where in the passage does the author first mention whales?

- (a) Lines 5-9
- (b) Lines 10-14
- (c) Lines 15-19
- (d) Lines 20-24

50. The word 'their' in line 25 refers to

- (a) Indian Ocean humpbacks
- (b) Pacific Ocean humpbacks
- (c) all whales
- (d) whale songs

Test 2– Answer Key

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