

TPO 25

READING

Paragraph 1

Q1 The word “enormous” in the passage is closest in meaning to

- A. Important
- B. Extremely large
- C. Highly unusual
- D. Active

Q2 According to paragraph 1, Olympus Mons differs from volcanoes on the Tharsis bulge in that Olympus Mons

- A. Has more complex geologic features
- B. Shows less impact cratering
- C. Is taller
- D. Was formed at a later time

Paragraph 2

Q3 The word “distinctive” in the passage is closest in meaning to

- A. Deep
- B. Complex
- C. Characteristic
- D. Ancient

Q4 According to paragraphs 1 and 2, which of the following is NOT true of the shield volcanoes on the Tharsis bulge?

- A. They have broad, sloping sides.
- B. They are smaller than the largest volcano on Mars.
- C. They have channels that resemble the lava channels of volcanoes on Earth.

The Surface of Mars

The surface of Mars shows a wide range of geologic features, including huge volcanoes—the largest known in the solar system—and extensive impact cratering. Three very large volcanoes are found on the Tharsis bulge, an enormous geologic area near Mars’s equator. Northwest of Tharsis is the largest volcano of all: Olympus Mons, with a height of 25 kilometers and measuring some 700 kilometers in diameter at its base. The three large volcanoes on the Tharsis bulge are a little smaller—a “mere” 18 kilometers high.

None of these volcanoes was formed as a result of collisions between plates of the Martian crust—there is no plate motion on Mars. Instead, they are shield volcanoes—volcanoes with broad, sloping sides formed by molten rock. All four show distinctive lava channels and other flow features similar to those found on shield volcanoes on Earth. Images of the Martian surface reveal many hundreds of volcanoes. Most of the largest volcanoes are associated with the Tharsis bulge, but many smaller ones are found in the northern plains.

- D. They are over 25 kilometers tall.

Paragraph 3

Q5 The word “roughly” in the passage is closest in meaning to

- A. Typically
- B. Frequently
- C. Actually
- D. Approximately

Q6 In paragraph 3, why does the author compare Maxwell Mons on Venus to the Hawaiian shield volcanoes on Earth?

- A. To help explain the relationship between surface gravity and volcano height
- B. To explain why Mars’s surface gravity is only 40 percent of Earth’s
- C. To point out differences between the surface gravity of Earth and the surface gravity of Venus
- D. To argue that there are more similarities than differences between volcanoes on different planets

Q7 Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

- A. Although direct evidence of recent eruptions is lacking, scientists believe that these volcanoes were active as recently as 100 million years ago.
- B. Scientists estimate that volcanoes active more recently than 100 years ago will still have extensive impact cratering on their slopes.

The great height of Martian volcanoes is a direct consequence of the planet’s slow surface gravity. As lava flows and spreads to form a shield volcano, the volcano’s eventual height depends on the new mountain’s ability to support its own weight. The lower the gravity, the lesser the weight and the greater the height of the mountain. It is no accident that Maxwell Mons on Venus and the Hawaiian shield volcanoes on Earth rise to about the same height (about 10 kilometers) above their respective bases—Earth and Venus have similar surface gravity. Mars’s surface gravity is only 40 percent that of Earth, so volcanoes rise roughly 2.5 times as high. Are the Martian shield volcanoes still active?

Scientists have no direct evidence for recent or ongoing eruptions, but if these volcanoes were active as recently as 100 million years ago (an estimate of the time of last eruption based on the extent of impact cratering on their slopes), some of them may still be at least intermittently active.
Millions of years, though, may pass between eruptions.

- C. If, as some evidence suggests, these volcanoes erupted as recently as 100 million years ago, they may continue to be intermittently active.
- D. Although these volcanoes were active as recently as 100 million years ago, there is no direct evidence of recent or ongoing eruptions

Paragraph 4.

Q8 The word “considerably” in the passage is closest in meaning to

- A. Frequently
- B. Significantly
- C. Clearly
- D. Surprisingly

Q9 According to paragraph 4, what is demonstrated by the fact that craters fill in much faster on Mars than on the Moon?

- A. Erosion from meteoritic impacts takes place more quickly on Mars than on the Moon.
- B. There is more dust on Mars than on the Moon.
- C. The surface of Mars is a dry desert.
- D. Wind is a powerful eroding force on Mars.

Q10 In paragraph 4, why does the author point out that Mars has few ancient craters that are less than 5 kilometers in diameter?

- A. To explain why scientists believe that the surface matter filling Martian craters is mostly dust
- B. To explain why scientists believe that the impact craters on Mars were created by meteoroids

Another prominent feature of Mars's surface is cratering. The Mariner spacecraft found that the surface of Mars, as well as that of its two moons, is pitted with impact craters formed by meteoroids falling in from space. As on our Moon, the smaller craters are often filled with surface matter-mostly dust-confirming that Mars is a dry desert world. However, Martian craters get filled in considerably faster than their lunar counterparts. On the Moon, ancient craters less than 100 meters across (corresponding to depths of about 20 meters) have been obliterated, primarily by meteoritic erosion. On Mars, there are relatively few craters less than 5 kilometers in diameter. The Martian atmosphere is an efficient erosive agent, with Martian winds transporting dust from place to place and erasing surface features much faster than meteoritic impacts alone can obliterate them.

- C. To support the claim that the Martian atmosphere is an efficient erosive agent
- D. To argue that Mars experienced fewer ancient impacts than the Moon did

Paragraph 4 is marked with an arrow>

Paragraph 5

Q11 According to paragraph 5, what have scientists been able to determine from studies of large impact cratering on Mars?

- A. Some Martian volcanoes are much older than was once thought.
- B. The age of Mars's surface can vary from area to area.
- C. Large impact craters are not reliable indicators of age in areas with high volcanic activity.
- D. Some areas of the Martian surface appear to be older than they actually are.

Paragraph 6

Q12 According to paragraph 6, the ejecta of Mars's crater Yuty differs from the ejecta of the Moon's Copernicus crater in that the ejecta of the Yuty crater

- A. Has now become part of a permafrost layer
- B. Contains a large volume of dust, soil and boulders
- C. Suggests that liquid once came out of the surface at the crater site
- D. Was thrown a comparatively long distance from the center of the crater

Q13 Look at the four squares  that indicate

As on the Moon, the extent of large impact cratering (i.e. craters too big to have been filled in by erosion since they were formed) serves as an age indicator for the Martian surface. Age estimates ranging from four billion years for Mars's southern highlands to a few hundred million years in the youngest volcanic areas were obtained in this way.

The detailed appearance of Martian impact craters provides an important piece of information about conditions just below the planet's surface. Martian craters are surrounded by ejecta (debris formed as a result of an impact) that looks quite different from its lunar counterparts. A comparison of the Copernicus crater on the Moon with the (fairly typical) crater Yuty on Mars demonstrates the differences. The ejecta surrounding the lunar crater is just what one would expect from an explosion ejecting a large volume of dust, soil, and boulders.

■However, the ejecta on Mars gives the distinct impression of a liquid that has splashed

where the following sentence could be added to the passage.

This surface feature has led to speculation about what may lie under Mars's surface.

Where would the sentence best fit? Click on a square to add the sentence to the passage.

or flowed out of crater. ■Geologists think that this fluidized ejecta crater indicates that a layer of permafrost, or water ice, lies just a few meters under the surface. ■Explosive impacts heated and liquefied the ice, resulting in the fluid appearance of the ejecta. ■

Q14 Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.

Drag your answer choices to the spaces where they belong. To remove an answer choice, click on it. To review the passage, click VIEW NEXT. Volcanoes and impact craters are major features of Martian geology.

- A. Plate motion on Mars, once considered to have played no role in shaping the planet's surface, is now seen as being directly associated with the planet's earliest volcanoes.
- B. Mars has shield volcanoes, some of which are extremely tall because of the planet's low surface gravity.
- C. Although the erosive power of the Martian atmosphere ensures that Mars has fewer craters than the Moon does, impact craters are prominent on Mars' s surface.
- D. Scientists cannot yet reliably estimate the age of the Martian surface because there has been too much erosion of it.
- E. Scientists have been surprised to discover that conditions just below the surface of Mars

- are very similar to conditions just below the surface of the Moon
- F. Studies of crater ejecta have revealed the possibility of a layer of permafrost below the surface of Mars

Paragraph 1:

1. The word “resurgence” in the passage is closest in meaning to
- A. transformation
 - B. comeback
 - C. program
 - D. expansion

Paragraph 2:

2. The word “compulsorily” in the passage is closest in meaning to
- A. for free
 - B. for a time
 - C. by requirement
 - D. by design
3. According to paragraph 2, which of the following contributed to the decline of Venetian shipping?
- A. The loss of trade in Adriatic Sea
 - B. The move from galleys to round ships
 - C. The decreased demand for galleys
 - D. The doubling of sailor’s wages
4. All of the following are mentioned in paragraph 2 as ways that Venice provided rowers for its galley EXCEPT

The Decline of Venetian Shipping

In the late thirteenth century, northern Italian cities such as Genoa, Florence, and Venice began an economic resurgence that made them into the most important economic centers of Europe. By the seventeenth century, however, other European powers had taken over, as the Italian cities lost much of their economic might.

This decline can be seen clearly in the changes that affected Venetian shipping and trade. First, Venic’s intermediary functions in the Adriatic Sea, where it had dominated the business of shipping for other parties, were lost to direct trading. In the fifteenth century there was little problem recruiting sailors to row the galleys (large ships propelled by oars): guilds (business associations) were required to provide rowers, and through a draft system free citizens served compulsorily when called for. ■ In the early sixteenth century the shortage of rowers was not serious because the demand for galleys was limited by a move to round ships (round-hulled ships with more cargo space), with required fewer rowers. ■ But the shortage of crews proved to be a greater and greater problem, despite continuous appeal to Venic’s tradition of maritime greatness. ■ Even though sailors’ wages doubled among the northern Italian cities

- A. Requiring business associations to provide sailors
- B. Recruiting sailors from other cities in northern Italy
- C. Drafting Venetian citizens into services as rowers
- D. Appealing to the traditions of Venice as a sea power.

Paragraph 3:

5. The word “outdated” in the passage is closest in meaning to

- A. strict
- B. enforced
- C. improved
- D. old-fashioned

6. According to paragraphs 3, why did the building of ships in Venetian shipyards become increasingly expensive?

- A. The wages of officers and workers in the Arsenale kept rising
- B. Roman shipyards were using all the available fir trees for the warships
- C. The timber used in the shipbuilding had to be brought from farther and farther away
- D. Venetian standards required that shipbuilders use top-quality materials.

7. All of the following are mentioned in paragraph 3 and 4 as contributing to the problems of the Venetian shipbuilding industry at the end of the sixteenth century EXCEPT

- A. The quality of work performed in the Arsenale had declined
- B. Venetian-built ships were heavy and generally inefficient

from 1550 to 1590, this did not elicit an increased supply■.

The problem in shipping extended to the Arsenale, Venice’s huge and powerful shipyard. Timber ran short, and it was necessary to procure it from farther and farther away. In ancient Roman times, the Italian peninsula had great forest of fir preferred for warships, but scarcity was apparent as early as the early fourteenth century. Arsenale officers first brought timber from the foothills of the Alps, then from north toward Trieste, and finally from across the Adriatic. Private shipbuilders were required to buy their oak abroad. As the costs of shipbuilding rose, Venice clung to its outdated standard while the Dutch were innovation in the lighter and more easily handled ships.

- C. Arsenale shipbuilders worked more slowly
- D. Only a few merchants controlled the buying and selling of most of the Venetian-built ships

Paragraph 4:

- 8. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.
 - A. The loss of ships in battle at the end of the sixteenth century showed that Venetian shipbuilders lacked the skills they had possessed at the beginning of the century.
 - B. Venetian shipbuilding failed to quickly replace the ships lost in battle at the end of the sixteenth century as it would have done earlier in the century.
 - C. Frederic Lane noted that Venice lost ships in battle at the end of the sixteenth century, showing that Venetian shipbuilding was no longer known for its reliability.
 - D. Venetian shipbuilding had been known for its high quality of work at the beginning of the sixteenth century, but toward the end of the century Venetian ships were poorer in quality.

The step from buying foreign timber to buying foreign ships was regarded as a short one, especially when complaints were heard in the latter sixteenth century that the standards and traditions of the Arsenale were running down. Work was stretched out and done poorly. Older workers had been allowed to stop work a half hour before the regular time, and in 1601 younger works left with them. Merchants complained that the privileges reserved for Venetian-built and owned ships were first extended to those Venetians who bought ships from abroad and then to foreign-built and owned vessels. Historian Frederic Lane observes that after the loss of ships in battle in the late sixteenth century, the shipbuilding industry no long had the capacity to recover that it had displayed at the start of the century.

Paragraph 5:

- 9. The word “conventional” in the passage is closest in meaning to
 - A. informal
 - B. logical
 - C. correct

The conventional explanation for the loss of Venetian dominance in trade is establishment of the Portuguese direct sea route to the East, replacing the overland Silk Road from the Black sea and the highly profitable Indian Ocean-caravan-eastern Mediterranean route to Venice. The Portuguese Vasco da Gama’s Voyaga

D. usual

10. Why does the author mention “Vasco da Gama’ Voyage around southern Africa to India” in the passage?

- A. to indicate how the Portuguese came to challenge Venetian dominance of trade with the East
- B. to explain why political troubles resulted in the closing of the usual routes to India
- C. to prove that Venetians could not sail round ships as efficiently as sailors from other countries did
- D. to show that Venetian reliance on round ships rather than galleys proved to be weakness

around southern Africa to India took place at the end of the fifteenth century, and by 1502 the trans-Arabian caravan route had been cut off by political unrest.

Paragraph 6:

11. Which of the following can be inferred from paragraph 6 about the Venetian Council’s decision concerning the use of round ships?

- A. It resulted in a return to profitable in luxury goods for Venetian merchants.
- B. Ultimately it did not restore the superiority in the spice trade that Venice had enjoyed earlier.
- C. It eventually enabled Venetian merchants to increase the quantity and price of the spices they sold in Europe.
- D. It means a long-awaited improvement in the fortunes of the shipbuilding industry in Venice.

12. According to paragraphs 6, in the sixteenth century the price of spices declined because

The Venetian Council finally allowed round ships to enter the trade that was previously reserved for merchant galleys, thus reducing transport cost by one third. Prices of spices delivered by ship from the eastern Mediterranean came to equal those of spices transported by Portuguese vessels, but the increase in quantity with both routes in operation drove the price far down. Gradually, Venice’s role as a storage and distribution center for spices and silk, dyes cotton, and gold decayed, and by the early seventeenth century Venice had lost its monopoly in markets such as France and southern Germany.

- A. France and Germany established monopolies and dictated prices
- B. Venetian merchant galleys competed with Venetian round ships for the spice trade
- C. More spices were available because both the Venetians and the Portuguese were importing them
- D. Increased demand for silk, dyes, cotton and gold meant that people had less money to spend on spices.

Paragraph 7,8:

13. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

The increase in reward still did not attract young people to this hard life, and convicted criminals and slaves were pressed into services.

Where would the sentence best fit? Click on a square to add the sentence to the passage.

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.

The loss of power and prestige of Italian cities by the sixteenth century is clearly seen in the decline of Venetian shipping.

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Venetian shipping had started to decline from about 1530-before the entry into the Mediterranean of large volumes of Dutch and British shipping-and was clearly outclassed by the end of the century. A contemporary of Shakespeare (1564-1616) observed that the productivity of Italian shipping had declined, compared with that of the British, because of conservatism and loss of expertise. Moreover, Italian sailors were deserting and emigrating, and captains, no longer recruited from the ranks of nobles, were weak on navigations.

This decline can be seen clearly in the changes that affected Venetian shipping and trade. First, Venic's intermediary functions in the Adriatic Sea, where it had dominated the business of shipping for other parties, were lost to direct trading. In the fifteenth century there was little problem recruiting sailors to row the galleys (large ships propelled by oars): guilds (business associations) were required to provide rowers, and through a draft system free citizens served compulsorily when called for. [■] In the early sixteenth century the shortage of rowers was not serious because the demand for galleys was limited by a move to round ships (round-hulled ships with more cargo space), with

Answer choices

- A. Venetian ships were famous for carrying large cargoes of spices and luxury goods around the world in fast, oar-driven galleys.
- B. A shortage of timber for building the traditional galleys and a lack of sailors to row them meant a loss of Venetian shipping business.
- C. The Venetian Council made sure that Venetian-built and -owned ships kept special privileges in transporting luxury goods in and out of Venice.
- D. Venetian round ships bringing spices and silk from the East helped drive prices down so that ordinary people could afford to buy them
- E. Venice failed to keep up with improvement in ship design, and the cost of shipbuilding rose as quality and efficiency declined.
- F. The Portuguese direct sea route to the East adversely affected Venetian trade, and Venice fell behind the Dutch and the British in the quality of their ships and sailing skills.

required fewer rowers. ■ But the shortage of crews proved to be a greater and greater problem, despite continuous appeal to Venice's tradition of maritime greatness. ■ Even though sailors' wages doubled among the northern Italian cities from 1550 to 1590, this did not elicit an increased supply■.

Paragraph 1:

1. The word “presumably” in the passage is closest in meaning to
- A. originally
B. supposedly
C. obviously
D. usually
2. According to paragraph 1, all of the following are true of ancestral plants EXCEPT
- A. They had cellulose-based cell walls.

The Evolutionary Origin of Plants

The evolutionary history of plants has been marked by a series of adaptations. The ancestors of plants were photosynthetic single-celled organisms that gave rise to plants presumably lacked true roots, stems, leaves, and complex reproductive structures such as flowers. All of these features appeared later in the evolutionary history of plants. Of today's different groups of algae, green algae are probably the most similar to ancestral plants. This supposition stems from

- B. They were closely related to green algae
- C. They were able to store nutrients
- D. They had a sophisticated multicellular structure.

the close phylogenetic (natural evolutionary) relationship between the two groups. DNA comparisons have shown that green algae are plants' closest living relatives. In addition, other lines of evidence support the hypothesis that land plants evolved from ancestral green algae used the same type of chlorophyll and accessory pigments in photosynthesis as do land plants. This would not be true of red and brown algae. Green algae store food as starch, as do land plants and have cell walls made of cellulose, similar in composition to those of land plants. Again, the good storage and cell wall molecules of red and brown algae are different.

Paragraph 2:

3. The phrase “subjected to” in the passage is closest in
- A. restricted by
 - B. distant from
 - C. exposed to
 - D. combined with

Today green algae live mainly in freshwater, suggesting that their early evolutionary history may have occurred in freshwater habitats. If so, the green algae would have been subjected to environmental pressures that resulted in adaptations that enhanced their potential to give rise to land-dwelling organisms.

Paragraph 3:

4. What can be inferred from paragraph 3 about ancient green algae?
- A. They lived in a generally wet environment that was sometimes dry
 - B. They adapted better to changes in water temperature than did to other changes in the environment.
 - C. They inhabited areas that were close to the ocean.
 - D. They had lived primarily on land

■ The environmental conditions of freshwater habitats, unlike those of ocean habitats, are highly variable. ■ Water temperature can fluctuate seasonally or even daily and changing level of rainfall can lead to fluctuations in the concentration of chemical in the water or even to period in which the aquatic habitat dries up. ■ Ancient fresh water green algae must have evolved features that enable them to withstand extremes of temperature and periods of dryness. ■ These adaptations served their descendant well as they invaded land.

Paragraph 4:

5. The word “desolate” in the passage is closest in meaning to

- A. dusty
- B. hardened
- C. deserted
- D. dried out

6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

- A. Terrestrial plants had the advantages of not having rivals and having easy access to photosynthetic material
- B. The abundance of photosynthetic material made life on land easier for pioneering plants
- C. Once plants had eliminated their competitors and their predators, their evolutionary process proceeded smoothly.
- D. Plant evolution eliminated competitors and made the process of photosynthesis more efficient.

7. According to paragraph 4, which of the following is true about the terrestrial world at the time it was colonized by plants?

- A. it was exposed to high levels of solar radiation
- B. it contained a limited supply of carbon dioxide
- C. it had developed 400 million years earlier
- D. it lacked the presence of any organisms

Paragraph 5:

8. the word “posed” in the passage is closest in meaning to

The terrestrial world is green now, but it did not start out that way. When plants first made the transition ashore more than 400 million years ago, the land was barren and desolate, inhospitable to life. From a plant’s evolutionary view point, however, it was also a land of opportunity, free of competitors and predators and full of carbon dioxide and sunlight (the raw materials for photosynthesis, which are present in far higher concentrations in air than in water). So once natural selection had shaped the adaptations that helped plants overcome the obstacles to terrestrial living, plants prospered and diversified.

When plants pioneered the land, they faced a range of challenges posed by terrestrial environments. On land, the supportive buoyancy

- A. shared
- B. presented
- C. strengthened
- D. concealed

9. According to paragraph 5, all of the following are problems that early terrestrial plants had to overcome Except

- A. a tendency to become dry
- B. the inability to limit surface sunlight
- C. the absence of a structure to support the body of the plant
- D. the inability to transport water and minerals through the plant

10. What purpose does paragraph 5 serve in the larger discussion of the origins of terrestrial plants?

- A. To emphasize how long it took for ancestral plants to adjust to life on land
- B. To disprove the argument that land plants adapted easily to their new terrestrial environment
- C. To explain how plant colonization changed the physical environment of the terrestrial world
- D. To describe how ancestral plants solved the problems they confirmed in colonizing

of water is missing, the plant is no longer bathed in a nutrient solution, and air tends to dry things out. These conditions favored the evolution of the structures that support the body, vessels that transport water and nutrients to all parts of plant, and structures that conserve water. The resulting adaptations to dry land include some structural features that arose early in plant evolution; now these features are common to virtually all land plant. They include roots or root like structures, a waxy cuticle that covers the surfaces of leaves and stems and limits the evaporation of water, and pores called stomata in leaves and stems that allow gas exchange but close when water is scarce, thus reducing water loss. Other adaptations occurred later in the transition to terrestrial life and now wide spread but not universal among plants. These include conducting vessels that transport water and minerals upward from the roots and that move the photosynthetic products from the leaves to the rest of the plant body and the stiffening substance lignin, which support the plant body, helping it expose maximum surface area to sunlight.

Paragraph 6:

11. According to Paragraph 6, The adaptation made by terrestrial plants had which of the following effect?

- A. Plants developed reproductive strategies usable in both land and water environment
- B. the plant diversity achieved in water environments diminished on land

These adaptations allowed an increasing diversity of plant forms to exploit dry land. Life on land, however, also required new methods of transporting sperm to eggs. Unlike aquatic and marine forms, land plants cannot always rely on water currents to carry their sex cells and disperse their fertilized eggs. So the most successful groups of land plants are those that

- C. seed plants became the dominant species among plants
- D. a greater range of plants was able to develop

12. Which of the following best describes the author's presentation of the information about land plants

- A. the author provided an overview of the evolutionary relationships between specific species of algae and land plants
- B. The author discusses the transformation plants underwent in the process of changing from an aquatic to a terrestrial environment
- C. the author establishes a pattern of similarity between major land and water plant groups
- D. The author presents evidence to support the hypothesis that plants first fully evolved in water before finding their way to land

13. Look at the four squares [█] that indicate where the following sentence could be added to the passage.

Scientists believe that chemical changes and a thicker exterior, among other things, may have helped ancient algae overcome the conditions in their environment.

Where would the sentence best fit? Click on a square to add the sentence to the passage.

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is

evolved methods of fertilized sex cell dispersal that are independent of water and structures that protect developing embryos from drying out. Protected embryos and waterless dispersal of sex cells were achieved with the origin of seed plants and the key evolutionary innovations that they introduced: pollen, seeds, and later, flowers and fruits.

█ The environmental conditions of freshwater habitats, unlike those of ocean habitats, are highly variable. █ Water temperature can fluctuate seasonally or even daily and changing level of rainfall can lead to fluctuations in the concentration of chemicals in the water or even to periods in which the aquatic habitat dries up. █ Ancient fresh water green algae must have evolved features that enable them to withstand extremes of temperature and periods of dryness. █ These adaptations served their descendants well as they invaded land.

worth 2 points.

In moving from water to land, ancestral plants overcame many obstacles in order to survive.

Answer Choice:

- A. Neither brown nor red algae are likely to be ancestors of plants because of their difference in pigmentation
- B. The instability of freshwater habitats caused marine algae to develop adaptations to their harsh environment.
- C. The colonization of land by plants was a major revolution in the history of Earth.
- D. Terrestrial plants adjusted to life on land by undergoing structural changes that enabled them to support themselves, resist drying, and exchange gases.
- E. To colonize new terrestrial habitats, plants needed to create a way of reproducing without water.
- F. Once plants had overcome the challenges posed by terrestrial life, they prospered by becoming less diverse.

LISTENING

1. What is the conversation mainly about?
 - A. The student's eligibility to graduate next semester
 - B. The student's difficulties in registering for classes
 - C. A difficult class the student must take next semester
 - D. Possible elective choices in the student's degree program

2. According to the woman, why was the program's curriculum changed?
 - A. To attract more international students to the program
 - B. To reflect the growing importance of international business
 - C. To take advantage of faculty members
 - D. To give students a stronger background in management

3. What does the woman imply about the new departmental requirements?
 - A. They will not affect the student's plans for graduation
 - B. They will not be officially approved by the department until next year
 - C. They will be limited to students specializing in the international business
 - D. They will be similar to recent changes made in other departments at the university

4. Why does the woman mention writing a letter?
 - A. To point out the best way for the student to contact the dean's office
 - B. To confirm that a personal letter is a graduation requirement
 - C. To indicate that she is willing to provide the student with further assistance
 - D. To emphasize that the student will need special permission to graduate

5. Why does the woman say this 重听题
A. To suggest that the student has not fulfilled all of his requirements
B. To indicate one of the new graduation requirements
C. To find out the student's opinion about a particular class
D. To be sure that the student has taken a required class

6. What is the main purpose of the lecture?
 - A. To explain the government's role in the regulating assisted migration
 - B. To discuss ways in which plants and animals adapt to climate change
 - C. To discuss a controversial approach to conserving plant and animal species
 - D. To describe a recently discovered consequence of global warming

7. According to the professor, what problem is assisted migration intended to overcome?
- A. To diminishing amount of undeveloped land that species can migrate through
 - B. The relative lack of nutrients available in cooler latitudes and higher elevations
 - C. The increase in alternations between cool and warm periods
 - D. Competition from other species in certain native habitats
8. What point does the professor make when she discusses the cane toad?
- A. Translocated species sometimes die out from lack of food
 - B. Translocated species may spread too quickly in their new environment
 - C. Several techniques are available to achieve assisted migration
 - D. Animal species are often easier to translocate than plant species are
9. What does the professor imply when she mentions translocating networking of species?
- A. There are aspects of interdependency that are unknown
 - B. Some species evolve in ways that help them survive in new habitats
 - C. It is difficult to know how far to move a network of species from its native habitat
 - D. Many assisted-migration plans should involve the translocation of just one species
10. What does the professor imply about the government's role in regulating assisted migration in the United States?
- A. The government should continue to encourage assisted migration
 - B. The government has created policies that have proved unhelpful
 - C. The government should follow the example set by other countries
 - D. The government needs to increase its involvement in the issue
11. What is the professor's attitude toward the effort to save the Florida torreya?
- A. She is glad that some conservationists are willing to take a chance on assisted migration
 - B. She is concerned because it may have unintended consequences
 - C. She is surprised because other species are more endangered than Florida torreya is
 - D. She expects the effort will have to be repeated several times before it succeeds
12. What is the lecture mainly about?
- A. The influence of the Romantic style of music on eastern European composers
 - B. The relationship between nationalism and popular music in the early 1900s
 - C. The popularity of folk music in Austria-Hungary during the early 1900s
 - D. The influence of folk music on the compositions of one Hungarian composer
13. What does the professor imply about romantic music in Austria-Hungary in the early 1900s?
- A. It was not as popular there as it was in other European countries

- B. It motivated Bartók to listen to other types of music
- C. It was listened to in the countryside more than it was in the cities
- D. Its popularity was due to the work of Bartók and other ethnomusicologists

14. Why does the professor mention local celebrations in the countryside?
- A. To show how folk music influenced composers throughout Eastern Europe
 - B. To give an example of when performances of Bartók music took place
 - C. To give an example of occasions when Bartók had an opportunity to hear folk music
 - D. To talk about why romantic music was popular in the countryside

15. What was Bartók's original goal when he started to travel through eastern Europe?
- A. To promote his ballet, the wooden prince
 - B. To document the local popular music
 - C. To discover which musical elements were popular in all countries
 - D. To find unusual musical elements he could use in his own compositions

16. According to the professor, why was Bartók's music popular in Austria-Hungary?
- A. Bartók's music was considered more sophisticated than other concert-hall music
 - B. Bartók's compositions incorporated music from the local culture
 - C. People were familiar with the Romantic elements Bartók included in his music
 - D. Bartók took advantage of the popularity of ballet there and wrote many new ballets

17. What does the professor mean when he says this: 重听题
- A. He wants to change the topic of discussion
 - B. He wants to acknowledge that the students may not be familiar with Bartók's music
 - C. He believes the students should already be familiar with the term 'glissando'
 - D. He will use an example of glissando to help define the term

18. Why does the man go to see the professor?
- A. To find out how to distinguish between different types of whale songs
 - B. To request permission to change the topic of his paper
 - C. To discuss the difference between using the internet and using books to find sources
 - D. To get help locating some information for his paper

19. What is the topic of the man's paper?
- A. How whales hold their breath
 - B. Whale migration patterns
 - C. Characteristic of whale habitats
 - D. The differences between the circulatory system of whales and that of other mammals

20. What is the professor's attitude toward the man's question about how whales hold their breath?

- A. She thinks he does not need to spend a lot of time looking for the answer
- B. She is surprised because she has already addressed this question in class

- C. She dismissed it as unimportant

- D. She is pleased that has a plan to obtain the answer himself

21. Why does the professor mention the limited time students have to complete their papers?

- A. To suggest that looking at research on the internet is a good way to save time

- B. To point out that the library has reduced the amount of time it is open each day

- C. To indicate her expectations for the amount of research to be done for the paper

- D. To emphasize the important of starting to write the paper a couple of weeks before it is due

22. According to the professor, how does a whale conserve oxygen while underwater?

Click on 2 answers

- A. Its heart rate decreases

- B. Its lung capacity temporarily increases

- C. It slows the pace of its swimming

- D. Blood flow to certain organs is decreased

23. What is the lecture mainly about?

- A. The history of language in ancient Egypt

- B. The process that was used to create hieroglyphic writing

- C. The competition between two scholars to solve an archaeological puzzle

- D. The circumstances that led to the solution of an archaeological puzzle

24. What was demotic script used for in ancient Egypt?

- A. Decorations on temples and monuments

- B. Administrative documents

- C. Illustration for stories

- D. Representations of objects

25. Why was ancient Egyptian hieroglyphic writing difficult for scholars to interpret?

- A. The language that it was based on was no longer used

- B. The same words were often represented by several different symbols

- C. It consisted of a mixture of three different languages

- D. Only fragments of it were found

26. What is the professor's opinion about Thomas Young's word with hieroglyphs?

- A. She feels that Young has not received the credit he deserves
- B. She is amazed that Young's conclusion about hieroglyphs was correct
- C. She is surprised that Young did not recognize his own accomplishments
- D. She thinks that Young's work was not careful enough to be taken seriously

27. According to the professor, what led to the decoding of the Rosetta Stone?

- A. A hieroglyph that represented the name of a person
- B. A written and oral description of a historical event
- C. The realization that each hieroglyph represented a different object or concept
- D. The discovery that the word for "Sun" is written the same way in Greek, demotic, and hieroglyphics

28. How did Young's and Champollion's studies of hieroglyphs differ from earlier studies of hieroglyphic writing?

- A. Young and Champollion had access to large collections of hieroglyphic writing
- B. Young and Champollion both guessed that hieroglyphs were symbols for sounds
- C. Young and Champollion both spoke Greek and Coptic
- D. Young and Champollion shared their research with one another

29. What is the discussion mainly about?

- A. The professor's recent research on play and brain development
- B. Differing explanations of the reasons for play
- C. Examples of two distinct types of play fighting
- D. Differences in the play behaviors of various animal specials

30. One of the students brings up the example of play fighting among wolf pups. What does this example lead him to believe?

- A. That wolves are especially violent animals
- B. That the play-as-preparation hypothesis is probably correct
- C. That wolves seldom engage in self-handicapping
- D. That the results of a recent study are probably not reliable

31. Which statement best expresses the professor's opinion of the play-as-preparation hypothesis?

- A. It is well supported by available evidence
- B. It may apply only to certain species of animals
- C. It does not explain some important aspects of play
- D. It is particularly useful explaining human behavior

32. What does the professor imply about self-handicapping? Click on 2 answers

- A. It commonly occurs in play but not in other activities
- B. It applies only to animal species that do not hunt for food
- C. It has been observed only in laboratory settings
- D. It contradicts the play-as-preparation hypothesis

33. The professor discusses a study on the relationship between brain growth and play. What does that study conclude?

- A. Patterns of brain growth are similar in animals that play and animals that do not play
- B. Excessive brain growth can sometimes limit an animal's behavioral vocabulary
- C. Animals that do not play have less-developed brains than animals that play
- D. Animals without well-developed brains are seldom observed playing

34. What does the student mean when she says this:

- A. She is not familiar with the play behavior of wolf pups
- B. She doubts that wolf pups fight as much as the other students implies
- C. She is not sure that she correctly understood the reading assignment
- D. She disagrees with the other student's opinion about play behavior

SPEAKING

1. Students often want to get better grades in their classes. Explain what students should do in order to improve their performance in a class. 【事件】
2. Some people do not enjoy shopping and shop only when they have a specific purchase to make. Others like to go shopping for pleasure whether or not they have something to buy. Which do you prefer and why? 【prefer】
3. Split Graduation

Traditionally, the university holds one ceremony for all graduating students, during which students are awarded their diplomas. Beginning this year, however, the university will hold two graduation ceremonies. Under the new arrangement, half the graduating students will participate in the first ceremony, and the other will participate in a second ceremony to be held the following day. Administrators cite two reasons for the change. First, the number of students has increased in recent years, and since diplomas are awarded individually, the single ceremony has become uncomfortably long. Also, the hall where the ceremony is held is too small to accommodate the growing audience of friends and family members.

The woman expresses her opinion about the university's plan. Briefly summarize the plan. Then state her opinion and explain the reasons she gives for holding that opinion.

4. Cultural Lag

Technological change occurs very rapidly in modern society-sometimes more rapidly than many people are prepared for. As a result, when new technology emerges, people may struggle for a time to adapt to it. This period of transition, when people are adjusting to technological change, is known as cultural lag. At first, people are not accustomed to the new technology and may not understand it, they may therefore have a negative attitude toward it. Over time, however, their attitudes change, and they successfully incorporate the new technology into their daily lives.

Using the example of the telephone, explain the concept of cultural lag.

5. Briefly summarize the problem the speakers are discussing. Then state which of the two solutions from the conversation you would recommend. Explain the reasons for your recommendation.
6. Using points and example from the lecture, explain two ways weathering occurs.

WRITING

TASK 1

In 1938 an archaeologist in Iraq acquired a set of clay jars that had been excavated two years earlier by villagers constructing a railroad line. The vessel was about 2,200 years old. Each clay jar contained a copper cylinder surrounding an iron rod. The archaeologist proposed that vessels were ancient electric batteries and even demonstrated that they can produce a small electric current when filled with some liquids. However, it is not likely that the vessels were actually used as electric batteries in ancient times.

First of all, if the vessels were used as batteries, they would probably have been attached to some electricity conductors such as metal wires. But there is no evidence that any metal wires were located near the vessels. All that has been excavated are the vessels themselves.

Second, the copper cylinders inside the jars look exactly like copper cylinders discovered in the ruins of Seleucia, an ancient city located nearby. We know that the copper cylinders from Seleucia were used for holding scrolls of sacred texts, not for generating electricity. Since the cylinders found with the jars have the same shape, it is very likely they were used for holding scrolls as well. That no scrolls were found inside the jars can be explained by the fact that the scrolls simply disintegrated over the centuries.

Finally, what could ancient people have done with the electricity that the vessels were supposed to have generated? They had no devices that relied on electricity. As batteries, the vessels would have been completely useless to them.

Summarize the points made in the lecture, being sure to explain how they support/contradict specific points made in the reading passage.

TASK 2

Young people nowadays do not give enough time to helping their communities.