

TPO 1

READING

Paragraph 1

Q1 Paragraph 1 indicates which of the following about Roman pottery?

- A. Roman amphorae were of much higher quality overall than other Roman pottery.
- B. Roman pottery can best be appreciated when actual pieces are handled.
- C. Roman pottery declined slightly in quality when the use of fast wheels and kilns was introduced.
- D. Roman practical tableware spread more rapidly across the Mediterranean than amphorae did.

Q2 All of the following are mentioned in paragraph 1 as characteristics of Roman pottery EXCEPT:

- A. It was usually made with high-quality clay.
- B. It generally did not weigh much.
- C. It did not break as easily as other ancient pottery.
- D. It sometimes had imperfections.

Paragraph 2

Q3 According to paragraph 2, which of the following is NOT true of Roman vessels?

- A. They were good containers for liquids.
- B. Their shapes allowed for easy stacking and storing.
- C. They sometimes had shiny surfaces.

Characteristics of Roman Pottery

The pottery of ancient Romans is remarkable in several ways. The high quality of Roman pottery is very easy to appreciate when handling actual pieces of table ware or indeed kitchenware and amphorae (the large jars used throughout the Mediterranean for the transport and storage of liquids, such as wine and oil). However, it is impossible to do justice to Roman wares on the page, even when words can be backed up by photographs and drawings. Most Roman pottery is light and smooth to the touch and very tough, although, like all pottery, it shatters if dropped on a hard surface. It is generally made with carefully selected and purified clay, worked to thin-walled and standardized shapes on a fast wheel and fired in a kiln (pottery oven) capable of ensuring a consistent finish. With handmade pottery, inevitably there are slight differences between individual vessels of the same design and occasional minor blemishes (flaws). But what strikes the eye and the touch most immediately and most powerfully with Roman pottery is its consistent high quality.

This is not just an aesthetic consideration but also a practical one. These vessels are solid (brittle, but not fragile), they are pleasant and easy to handle (being light and smooth), and, with their hard and sometimes glassy (smooth and shiny) surfaces, they hold liquids well and are easy to wash. Furthermore, their regular and

D. Their true age is immediately apparent.

standardized shapes would have made them simple to stack and store. When people today are shown a very ordinary Roman pot and, in particular, are allowed to handle it, they often comment on how modern it looks and feels, and they need to be convinced of its true age.

Paragraph 3

- Q4 The author mentions the work of archaeologists in paragraph 3 in order to
- A. Support the idea that pottery was produced in large quantities by the Romans
 - B. illustrate how hard it is for archaeologists to find complete pieces of Roman pottery
 - C. contrast archaeological sites in Roman urban areas with other sites in the Mediterranean
 - D. explain why the quantities of pottery found vary significantly from one site to another

As impressive as the quality of Roman pottery is its sheer massive quantity. When considering quantities, we would ideally like to have some estimates for overall production from particular sites of pottery manufacture and for overall consumption at specific settlements. Unfortunately, it is in the nature of the archaeological evidence, which is almost invariably only a sample of what once existed, that such figures will always be elusive. However, no one who has ever worked in the field would question the abundance of Roman pottery, particularly in the Mediterranean region. This abundance is notable in Roman settlements (especially urban sites) where the labor that archaeologists have to put into the washing and sorting of potsherds (fragments of pottery) constitutes a high proportion of the total work during the initial phases of excavation.

Paragraph 4

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

- A. protected
- B. man-made
- C. large
- D. famous

Q6 According to paragraph 4, Monte Testaccio is particularly important for archaeologists because

■ Only rarely can we derive any “real” quantities from deposits of broken pots. ■ However, there is one exceptional dump, which does represent a very large part of the site’s total history of consumption and for which an estimate of quantity has been produced. ■ On the left bank of the Tiber River in Rome, by one of the river ports of the ancient city, is a substantial hill some 50 meters high called Monte Testaccio.

archaeologists were able to

- A. conclude how amphorae manufacturing increased rapidly after the second century A.D.
- B. find the locations where most of the amphorae in the Roman Empire were produced
- C. obtain relatively accurate calculations of the quantities of amphorae used over time in that place
- D. discover that the Roman state had supported amphorae production

Q7 The word “entirely” in the passage is closest in meaning to

- A. apparently
- B. completely
- C. basically
- D. mostly

Q8 Paragraph 4 indicates which of the following about the port on the Tiber River near Monte Testaccil?

- A. It was built around the third century A.D.
- B. It was close to areas where large quantities of oil were produced.
- C. It was in use only for a very short period of time.
- D. It had an impressive level of commercial activity.

Q9 The statement in paragraph 4 that amphorae delivered to the port near Monte Testaccil were occasionally discarded supports which of the following?

- A. Traders at the port were often careless.
- B. The quality of the amphorae used at the port was not very good.
- C. The scale of the trade made it possible to

■ It is made up entirely of broke oil amphorae, mainly of the second and third centuries A.D. It has been estimated that Monte Testaccil contains the remains of some 53 million amphorae, in which around 6,000 million liters of oil were imported into the city from overseas. Imports into imperial Rome were supported by the full might of the state and were therefore quite exceptional—but the size of the operations at Monte Testaccil, and the productivity and complexity that lay behind them, nonetheless cannot fail to impress. This was a society with similarities to modern ones—moving goods on a gigantic scale, manufacturing high-quality containers to do so, and occasionally, as here, even discarding them on delivery.

waste quality amphorae sometimes.

D. The importing of oil from overseas gradually declined, reducing the need for pottery.

Paragraph 5

Q10 The statement that maps “show the various spots where Roman pottery of a particular type has been found tell only part of the story” makes the point that

- A. Maps indicate where specific pottery styles have been found, but they do not indicate where these styles originated
- B. Maps show the geographical spread of Roman pottery but not the people who had access to it
- C. Maps do not usually include pottery styles found in the remotest regions of the Roman Empire
- D. Archaeologists studying Roman pottery need to use a range of techniques in their investigations

Q11 The word “humble” in the passage is closest in meaning to

- A. rural
- B. distant
- C. ancient
- D. modest

Q12 The word “particular” in the passage is closest in meaning to

- A. specific
- B. common
- C. ancient
- D. superior

Roman pottery was transported not only in large quantities but also over substantial distances. Many Roman pots, in particular amphorae and the fine wares designed for use at tables, could travel hundreds of miles—all over the Mediterranean and also further afield. But maps that show the various spots where Roman pottery of a particular type has been found tell only part of the story. What is more significant than any geographical spread is the access that different levels of society had to good-quality products. In all but remotest regions of the empire, Roman pottery of a high standard is common at the sites of humble villages and isolated farmsteads.

Q13 Look at the four squares  that indicate where the following sentence could be added to the passage.

That is because residents of a city did not usually used pottery at the same site over a long period of time .

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

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.
The pottery of the ancient Roman Empire is remarkable.

- A. Roman pottery is considered to be practical and of consistently high quality.
- B. People are not familiar with the whole range of pottery the Romans created because most of the available pieces represent only a limited number of styles and shapes.
- C. Even though the exact quantity of pottery produced by the Romans is almost impossible to calculate, it is certain that it was produced in large quantities.
- D. Archaeologists looking for the remains of Roman pottery concentrate on urban sites because that is where the oldest pieces of

kitchenware and amphorae have been found.

E. Roman pottery was transported over long distances, and different levels of society had access to quality pottery.

F. It is still unclear to archaeologists what the role of the Roman state in the commercial success of Roman pottery was.

Paragraph 1

Q15 The phrase "mechanisms of natural selection" in the passage is closest in meaning to

- A. types of natural selection.
- B. dangers of natural selection
- C. Problems natural selection solves
- D. ways natural selection works.

Q16 According to paragraph 1, what is one effect of competition among individuals of different species?

- A. It results in the eventual elimination of the resources for which they are competing
- B. It leads to competition among individuals of the same species
- C. It encourages new species to immigrate to an area
- D. It controls the number of individuals in the competing populations

Q17 The word "indigenous" in the passage is closest in meaning to:

- A. Native
- B. rare
- C. Most
- D. Numerous

Competition

When several individuals of the same species or of several different species depend on the same limited resources, a situation may arise that is referred to as competition. The existence of competition has been long known to naturalists, its effects were described by Darwin in considerable detail. Competition among individuals of the same species (intraspecies competition), one of the major mechanisms of natural selection, is the concern of evolutionary biology. Competition among the individuals of different species (interspecies competition) is a major concern of ecology. It is one of the factors controlling the size of competing populations, and in extreme cases it may lead to the extinction of one of the competing species. This was described by Darwin from indigenous New Zealand species of animals and plants, which died out when competing species from Europe were introduced.

Q18 In paragraph 1, why does the author mention what happened in New Zealand?

- A. To indicate that Darwin understood the importance of competition
- B. To illustrate that competition can lead to the extinction of species
- C. To identify where the idea of competition among species first arose
- D. To argue against the idea that the process of selection is a natural occurrence

Paragraph 2

Q19 According to paragraph 2, competition is not usually a significant factor among the coexisting species when

- A. One of the species has only recently moved into the territory of the other
- B. The species are closely related to each other
- C. The population of one species is much larger than that of the other
- D. Both of the species are herbivores

Q20 The word “graphically” in the passage is closest in meaning to

- A. Vividly
- B. Frequently
- C. Broadly
- D. Typically

Q21 In the paragraph 2, why does the author talk about what happened as a result of North and South America becoming joined at the Isthmus of Panama

- A. To make the point that predation can have as much effect on species survival as competition does.
- B. To show how the ability to switch to an

No serious competition exists when the major needed resources is in superabundant supply, as in most cases of the coexistence of herbivores (plant eaters). Furthermore, most species do not depend entirely on a single resource. If the major resource for a species becomes scarce resource, the competing species usually switch to different alternative resources. Competition is usually most severe among close compete for the same resource, such as seed-eating rodents and ants. The effects of such competition are graphically demonstrated when all the animals or all the plants in an ecosystem come into competition, as happened 2 million years ago at the end of Pliocene, when North and South America become joined by the Isthmus of Panama. North and South America species migrating across the Isthmus now came into competition with each other. The result was the extermination of a large fraction of the South American mammals, which were apparently unable to withstand the competition from invading North American species-although added predation was also an important factor.

- alternative resource can give species a competitive advantage.
- C. To account for the current species composition of North and South America.
 - D. To provide an example of the serious effects of competition between unrelated species.

Paragraph 3

Q22 Paragraph 3 supports the idea that Gause's experiments were important because they

- A. Provide a situation in which competition could be removed from the interaction between two species.
- B. Showed that previous ideas about the extent to which competition determines the composition of a community were completely mistaken
- C. Help establish that competition will remove all but one species from any given ecological niche.
- D. Offered evidence that competition between species is minimal when there is an overabundance of a single food source.

Q23 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. Apparent exceptions to this law usually involve cases in which two species compete for the same major resource but occupy slightly different niches.
- B. Although it may appear two species always have different niches, many exceptions show that species compete with each other.
- C. Cases in which two species not only for a shared resource but also occupy similar niches

To what extent competition determines the composition of a community and the density of particular species has been the source of considerable controversy. The problem is that competition ordinarily cannot be observed directly but must be inferred from the spread of increase of one species and the concurrent reduction or disappearance of another species. The Russian biologist G.F Gause performed numerous two-species experiments in the laboratory, in which one of the species became extinct when only a single kind of resource was available. On the basis of these experiments and of field observations, the so-called law of competitive exclusion was formulated, according to which no two species can occupy the same niche. Numerous seeming exceptions to this law have since been found, but they can usually be explained as cases in which the two species, even though competing for a major joint resource, did not really occupy exactly the same niche.

are considered exceptions to this law.

- D. Cases in which the two species do not occupy the same niche yet still compete for the same resource are believed to exceptions to this law.

Paragraph 4

Q24 According to paragraph 4, how does competition affect evolution?

- A. It results in the evolution of physical structures that allow the species to compete with each other more effectively
- B. It results in the evolutionary extinction of all but one of the competing species.
- C. It results in the competing species evolving in such a way that they no longer compete for the same resources.
- D. It results in the competing species evolving to become so much like each other that the competition between them eventually disappears.

Competition among species is of considerable evolutionary importance. The physical structure of species competing for resources in the same ecological niche tends to gradually evolve in ways that allow territories no longer overlap. The evolutionary effect of competition on species has been referred to as “species selection,” however, this description is potentially misleading. Only the individuals of a species are subject to the pressure of natural selection. The effect on the well-being and existence of a species is just the result of the effects of selection on all the individuals of the species. Thus species selection is actually a result of individual selection.

Paragraph 4

Q25 According to paragraph 4, “species selection” is a misleading term because it

- A. overemphasizes the role of selection pressures in species extinction
- B. Suggests that selection pressures directly influence whole species.
- C. Does not make a distinction between species extinction and species evolution
- D. Suggests that extinction always results whenever there is competition.

Competition may occur for many needed resource. In the case of animals it is usually food; in the case of forest plants it may be light; in the case of substrate inhabitants it may be space, as in many shallow-water bottom-dwelling marine organisms. Indeed, it may be for any of the factors, physical as well as biotic, that are essential for organisms. Competition is usually the more severe the denser the population. Together with predation, it is the most important density-dependent factor in regulating population growth.

Q26 The word “regulating” in the passage is closest in meaning to

- A. Controlling

- B. Explaining
- C. Observing
- D. Stopping

Paragraph 5

Q27 Look at the four squares [■] that indicate where the following sentence could be added to the passage.

That is, as the density of a population increases, competition has a greater impact and leads to greater mortality.

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

Q28 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.

When necessary resources are limited, competition can occur among individuals of the same species or of different species

- A. Competition can eliminate a species , but since most species do not depend on a single resource, competition is often reduced by switching to alternative resources.
- B. Competition between individuals of the same species is usually for food whereas competition between species is usually for habitat.
- C. Investigation of the ecological role of

Competition may occur for any needed

resource. ■ In the case of animals it is usually food; in the case of forest plants it may be light; in the case of substrate inhabitants it may be space, as in many shallow-water bottom-dwelling marine organisms. ■ Indeed, it may be for any of the factors, physical as well as biotic, that are essential for organisms. ■ Competition is usually the more sever the denser the population.

■ Together with predation, it is the most important density-dependent factor in regulating population growth.

- competition is difficult because ordinary competition cannot be observed directly and must be inferred from its presumed effects.
- D. Experiments and field observations have established that competition between species is strong enough to prevent two species from occupying the same ecological niche.
- E. Competition between a pair of species tends to lessen over time because the species tend to evolve to occupy different ecological niches and ranges
- F. Competition is usually strongest when the density of the competing populations is the same.

Paragraph 1

Q29 The word “harnessed” in the passage is closest in meaning to

- A. Known
- B. Depended on
- C. Recognized
- D. Utilized

Q30 In paragraph 1, uncertainty is expressed about all of the following aspects of the early development of waterpower EXCEPT

- A. When exactly the very first waterpower devices were invented
- B. Where exactly the very first waterpower devices were developed
- C. Whether water was one of the earliest sources of power to be used by humans
- D. Whether the very earliest waterpower devices arose independently

Paragraph 2

Q31 According to paragraph 2, what was true of

The History of Waterpower

Moving water was one of the earliest energy sources to be harnessed to reduce the workload of people and animals. No one knows exactly when the water wheel was invented, but irrigation systems existed at least 5,000 years ago, and it seems probable that the earliest waterpower device was the noria, a waterwheel that raised water for irrigation in attached jars. This device appears to have evolved no later than the fifth century B.C., perhaps independently in different regions of the Middle and Far East.

The earliest waterpower mills were probably vertical-axis mills for grinding corn,

the waterpower mills built throughout the Roman Empire?

- A. Most had horizontal-axis wheel.
- B. Their design was based on mills that had long been used in Scandinavia.
- C. Their design was more popular beyond the empire's boundaries than it was within the empire.
- D. They were more advanced than the mills used in the Middle East at an earlier time.

known as Norse or Greek mills, which seem to have appeared during the first or second century B.C. in the middle East and a few centuries later in Scandinavia. In the following centuries, increasingly sophisticated waterpower mills were built throughout the Roman Empire and beyond its boundaries in the Middle East and northern Europe. In England, the Saxons are thought to have used both horizontal and vertical-axis wheels. The first documented English mill was in the eighth century, but three centuries later about 5,000 were recorded, suggesting that every settlement of any size had its mill.

Paragraph 3

Q32 The phrase “the applications of waterpower” in the passage is closest in meaning to

- A. The uses to which waterpower was put
- B. The improvements made to waterpower
- C. The methods by which waterpower was supplied
- D. The sources of waterpower available

Raising water and grinding com were by no means the only uses of the waterpower mill, and during the following centuries, the applications of waterpower kept pace with the developing technologies of mining, iron working, paper making, and the wool and cotton industries. Water was the main source of mechanical power, and by the end of the seventeenth century, England alone is thought to have had some 20,000 working mills.

Paragraph 4

Q33 According to paragraph 4, which of the following was discovered as a result of scientific and technical investigation of water power conducted between 1650 and 1800?

- A. Some types of small waterwheels can produce as much horsepower as the very largest wheels.
- B. Waterwheels operate more efficiently when water falls away from their blades slowly than when water falls away quickly.
- C. Waterwheel efficiency can be improved by increasing the amount of kinetic energy water

There was much debate on the relative efficiencies of different types of waterwheels. ■ The period from about 1650 until 1800 saw some excellent scientific and technical investigations of different designs. ■ They revealed output powers ranging from about 1 horsepower to perhaps 60 for the largest wheels and confirmed that for maximum efficiency, the water should pass across the blades as smoothly as possible and fall away with minimum speed, having given up almost all of its kinetic energy. ■ (They also

contains as it passes over a waterwheel's blades

D. Unlike other type of waterwheel, the overshot wheel is capable of producing more than 60 horsepower units of energy.

proved that, in principle, the overshot wheel, a type of wheel in which an overhead stream of water powers the wheel, should win the efficiency competition.)■

Paragraph 5

Q34 The word “pessimistic” in the passage is closest in meaning to

- A. Negative
- B. Unlikely
- C. Surprising
- D. Incomplete

Q35 The term “by then” in the passage refers to

- A. By the time steam power entered the scene
- B. By the year 1800
- C. By the year 1900
- D. By the time the waterwheel was becoming obsolete

But when steam power entered the scene, putting the whole future of waterpower in doubt, An energy analyst writing in the year 1800 would have painted a very pessimistic picture of the future for waterpower. The coal-fired steam engine was taking over, and the waterwheel was fast becoming obsolete. However, like many later experts, this one would have suffered from an inability to see into the future. A century later the picture was completely different: by then, the world had an electric industry, and a quarter of its generating capacity was water powered.

Q36 According to paragraph 5, why did waterpower become more important by 1900?

- A. Better waterwheel designs improved the efficiency of waterpower.
- B. Waterpower was needed to operate steam engines
- C. Waterpower was used to generate electricity
- D. Waterwheel became more efficient than coal-powered engines.

Paragraph 6

Q37 Which of the sentences below best expresses the essential information in the

The growth of the electric-power industry was the result of a remarkable series of scientific discoveries and developments in

highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

- A. The growth of the electric-power industry stimulated significant changes in hydro technology and scientific progress in electrotechnology in the nineteenth century.
- B. The changes in hydro technology that led to the growth of the electric-power industry also led to discoveries and developments in electrotechnology in the nineteenth century.
- C. Advances in electrotechnology in the nineteenth century and changes in hydro technology were responsible for the growth of the electric-power industry.
- D. In the nineteenth century, the scientific study of electrotechnology and hydro technology benefited greatly from the growth of the electric-power industry.

electrotechnology during the nineteenth century, but significant changes in what we might now call hydro (water) technology also played their part. In 1832, the year of Michael Faraday's discovery that a changing magnetic field produces an electric field, a young French engineer patented a new and more efficient waterwheel. His name was Benoit Fourneyron, and his device was the first successful water turbine. (The word turbine comes from the Latin *turbo*: something that spins). The waterwheel, unaltered for nearly 2,000 years, had finally been superseded.

Q38 The word “unaltered” in the passage is closest in meaning to

- A. Unimproved
- B. Unequaled
- C. Unchanged
- D. Unsatisfactory

Q39 The discussion of the history of electric power production in paragraph 6 supports which of the following?

- A. 1832 marked the beginning of the industrial production of electric power.
- B. Turbines using Benoit Fourneyron's design were eventually used to generate electric power.
- C. Benoit Fourneyron's quickly applied Michael Faraday's discovery about electric fields to acquire a patent for a new and more efficient waterwheel.

D. Practical advances in hydro technology were more important to the development of electric power than were advances in the theoretical understanding of electricity.

Paragraph 7, 8

Q39 According to paragraph 7, what problem did early power station in the town of Godalming in Surrey, United Kingdom, face in providing electricity?

- A. The traditional waterwheel it used was not large enough to meet the demand for energy.
- B. The flow of the River Wey, on which the power station depended, was unreliable.
- C. The operators of the Godalming power station had little experience with hydro technology.
- D. The steam engine that turned the waterwheel was faulty and needed to be replaced.

Half a century of development was needed before Faraday's discoveries in electricity were translated into full-scale power stations. In 1881 the Godalming power station in Surrey, England, on the banks of the Wey River, created the world's first public electricity supply. The power source of this most modern technology was a traditional waterwheel. Unfortunately this early plant experienced the problem common to many forms of renewable energy: the flow in the Wey River was unreliable, and the waterwheel was soon replaced by a steam engine.

From this primitive start, the electric industry grew during the final 20 years of the nineteenth century at a rate seldom if ever exceeded by any technology. The capacity of individual power stations, many of them hydro plants, rose from a few kilowatts to over a megawatt in less than a decade.

Paragraph 9,10

Q13 Look at the four squares [■] that indicate where the following sentence could be added to the passage.

Happily, serious studies began to be conducted to help resolve disagreements.

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

There was much debate on the relative efficiencies of different types of waterwheels. ■ The period from about 1650 until 1800 saw some excellent scientific and technical investigations of different designs. ■ They revealed output powers ranging from about 1 horsepower to perhaps 60 for the largest wheels and confirmed that for maximum efficiency, the water should pass across the blades as smoothly as possible and fall away with minimum speed, having given

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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 Ever since the development of the waterwheel. Which occurred no later than 500 B.C., people have used moving water as a source of power.

A. The first water-powered machines were probably used to grind corn, and as technology advanced, waterwheels were used as the main source of power in many industries.

B. Almost every large town in England had a water power mill, allowing England to become the world's leader in industries that depended on water for their power.

C. In the nineteenth century electric power station in England began using water power from a nearby river, creating a dependable source of power that quickly replaced the steam engine.

D. Waterpower mills were probably invented about the same time in the Middle East and Scandinavia and then spread to England by about the second century B.C.

E. In the seventeenth and eighteenth centuries, design improvements in waterwheels led to discoveries of how to increase their efficiency and power output.

F. After declining in importance in the early 1800's, waterpower came back into demand by the end of the century as a means to power electric power plants and water turbines.

up almost all of its kinetic energy. ■ (They also proved that, in principle, the overshot wheel, a type of wheel in which an overhead stream of water powers the wheel, should win the efficiency competition.)■

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Listening

Q1 What is the conversation mainly about?

- A. What the deadline to register for a Japanese class is.
- B. Why a class the woman chose may not be suitable for her .
- C. How the woman can fix an unexpected problem with her class schedule.
- D. How first-year students can get permission to take an extra class.

Q2 Why does the man tell the woman that Japanese classes are popular?

- A. To imply that a Japanese class is unlikely to be canceled.
- B. To explain why the woman should have registered for the class sooner.
- C. To encourage the woman to consider taking Japanese.
- D. To convince the woman to wait until next semester to take a Japanese class.

Q3 Why does the man ask the woman if she registered for classes online?

- A. To explain that she should have registered at the registrar's office.
- B. To find out if there is a record of her registration in the computer.
- C. To suggest a more efficient way to register for classes.
- D. To determine if she received confirmation of her registration.

Q4 What does the man suggest the woman do?Click on 2 answers.

- A. Put her name on a waiting list.
- B. Get the professor to sign a form granting her permission to take the class.
- C. Identify a course she could take instead of Japanese.
- D. Speak to the head of the Japanese department.

Q5 What does the man imply when he points out that the woman is a first-year student?

- A. The woman has registered for too many classes.
- B. The woman should not be concerned if she cannot get into the Japanese class.
- C. The woman should not register for advanced-level Japanese classes yet.
- D. The woman should only take required courses at this time.

Q6 What does the professor mainly discuss?

- A. Cause of soil diversity in old-growth forests
- B. The results of a recent research study in a Michigan forest
- C. The impact of pedodiversity on forest growth
- D. How forest management affects soil diversity

Q7 According to the professor, in what way is the soil in forested areas generally different from soil in other areas?

- A. In forested areas, the soil tends to be warmer and moister.
- B. In forested areas, the chemistry of the soil changes more rapidly.
- C. In forested areas, there is usually more variability in soil types.
- D. In forested areas, there is generally more acid in the soil.

Q8 What does the professor suggest are the three main causes of pedodiversity in the old-growth hardwood forests she discusses? Click on 3 answers.

- A. The uprooting of trees
- B. The existence of gaps
- C. Current forest-management practices
- D. Diversity of tree species
- E. Changes in climatic conditions

Q9 Why does the professor mention radiation from the Sun?

- A. To point out why pits and mounds have soil with unusual properties
- B. To indicate the reason some tree species thrive in Michigan while others do not
- C. To give an example of a factor that cannot be reproduced in forest management
- D. To help explain the effects of forest gaps on soil

Q10 Why does the professor consider pedodiversity an important field of research?

- A. It has challenged fundamental ideas about plant ecology.
- B. It has led to significant discoveries in other fields.
- C. It has implications for forest management.
- D. It is an area of study that is often misunderstood.

Q11 Why does the professor give the students an article to read?

- A. To help them understand the relationship between forest dynamics and pedodiversity

- B. To help them understand how to approach an assignment
- C. To provide them with more information on pits and mounds
- D. To provide them with more exposure to a controversial aspect of pedodiversity

Q12 What is the main purpose of the lecture?

- A. To explain how musicians can perform successfully in theaters and concert halls with poor acoustics
- B. To explain how the design of theaters and concert halls has changed over time
- C. To discuss design factors that affect sound in a room
- D. To discuss a method to measure the reverberation time of a room

Q13 According to the lecture, what were Sabine's contributions to architectural acoustics? Click on 2 answers.

- A. He founded the field of architectural acoustics.
- B. He developed an important formula for measuring a room's reverberation time.
- C. He renewed architects' interest in ancient theaters.
- D. He provided support for using established architectural principles in the design of concert halls.

Q14 According to the professor, what is likely to happen if a room has a very long reverberation time?

- A. Performers will have to make an effort to be louder.
- B. Sound will not be scattered in all directions.
- C. Older sounds will interfere with the perception of new sounds.
- D. Only people in the center of the room will be able to hear clearly.

Q15 Why does the professor mention a piano recital? Click on 2 answers.

- A. To illustrate that different kinds of performances require rooms with different reverberation times
- B. To demonstrate that the size of the instrument can affect its acoustic properties
- C. To cite a type of performance suitable for rectangular concert hall
- D. To exemplify that the reverberation time of a room is related to its size

Q16 According to the professor, what purpose do wall decorations in older concert halls serve?

- A. They make sound in the hall reverberate longer.
- B. They distribute the sound more evenly in the hall.
- C. They make large halls look smaller and more intimate.
- D. They disguise structural changes made to improve sound quality.

Q17 Why does the professor say this: **重听题**

- A. To find out if students have understood his point
- B. To indicate that he will conclude the lecture soon
- C. To introduce a factor contradicting his previous statement
- D. To add emphasis to his previous statement

Q18 Why does the student go to see the professor?

- A. To explain why he may need to hand in an assignment late
- B. To get instructions on how to complete an assignment
- C. To discuss a type a type of music his class is studying
- D. To ask if he can choose the music to write about in a listening journal

Q19 What does the student describe as challenging?

- A. Comparing contemporary music to earlier musical forms
- B. Understanding the meaning of songs that are not written in English
- C. Finding the time to listen to music outside of class
- D. Writing critically about musical works

Q20 Why does the student mention hip-pop music?

- A. To contrast the ways he responds to familiar and unfamiliar music
- B. To help explain why he signed up for the professor's course
- C. To point out its similarities to music introduced in the course
- D. To give an example of music that features repeating rhythms

Q21 According to the professor, what are two characteristics of the musical form the class is currently studying? Click on 2 answers.

- A. The songs are sung in a low voice.
- B. The songs have influenced other musical styles.
- C. The songs are about serious topics.
- D. The songs were never written down.

Q22 What can be inferred about the professor at the end of the conversation?

- A. She intends to provide all her students with additional information about the assignment.
- B. She is concerned that the student may not be successful in the class.
- C. She understands that the student has less experience playing music than writing about it.
- D. She is happy that most students in the class were able to follow her instructions.

Q23 What is the main purpose of the lecture?

- A. To explain the method used to date Clovis caches
- B. To compare two different types of Clovis caches
- C. To discuss possible interpretations of Clovis caches
- D. To show how caches indicate the route traveled by the Clovis people

Q24 What does the professor imply when she mentions a debate about when the Clovis people arrived in the Americas?

- A. An arrival date of 11,000 years ago is acceptable for the purpose of her lecture.
- B. An arrival date of 11,000 years ago is inconsistent with some aspects of Clovis culture.
- C. Only a few archaeologists believe the arrival date is much earlier than 11,000 years ago.
- D. The debate about the arrival date of the Clovis people has recently been settled.

Q25 According to the professor, what is the traditional explanation for Clovis caches?

- A. They were supplies kept in storage for future use.
- B. They were valuable items for trading with other groups.
- C. They were carved objects that served as maps.
- D. They were forms of communication.

Q26 According to the lecture, what is indicated by the size of the points found in some Clovis caches?

- A. Methods of toolmaking varied between different Clovis groups.
- B. The Clovis people made a variety of tools for different purposes.
- C. The points may not have been functional tools.
- D. The larger points made the Clovis people's spears more effective.

Q27 What were two characteristics of tools found in Clovis caches? Click on 2 answers.

- A. They were made later than other Clovis tools.
- B. They were skillfully made.
- C. They were carved with particular symbols.
- D. They were made of the best pieces of stone.

Q28 According to the alternative hypothesis the professor mentions, why might the Clovis people have buried caches?

- A. To indicate that they were the owners of the land
- B. To pass cultural knowledge to future generations
- C. To recognize that a place had a special meaning
- D. To give a name to a particular area

Q29 What is the main purpose of the lecture?

- A. To help students understand what is required to launch a satellite
- B. To describe new materials now being used to explore space
- C. To describe a potential technology for space exploration
- D. To show how ideas from science fiction often develop into actual technologies

Q30 Why does the student mention climbing a ladder?

- A. To demonstrate his familiarity with certain new types of technology
- B. To make sure he understands the point the professor is making
- C. To raise an objection to the professor's claims about escape velocity
- D. To provide a humorous example for the other students' amusement

Q31 What does the professor imply about using carbon nanotubes in the development of space elevators?

- A. Current technology is good enough to make space elevators even without nanotubes.
- B. We do not yet have the technology to bind nanotubes together in a ribbon.
- C. Nanotube cables would not be rigid enough to support an elevator car.
- D. Nanotubes are the kinds of materials that will be needed if space elevators are ever to be built.

Q32 According to the professor, what is the significance of having a satellite in orbit about 36,000 kilometers above Earth's surface?

- A. This is the physical limit of the length that a carbon nanotube cable could reach.
- B. A satellite orbiting at this height can remain directly above one location on Earth.
- C. Earth's gravitational field is too weak to hold a satellite in orbit at higher altitudes.
- D. The distance around Earth's equator is approximately 36,000 kilometers.

Q33 Why does the professor mention the writer Arthur C. Clarke?

- A. To use a comment made by Clarke as a way of answering a student's question
- B. To familiarize students with Clarke's ideas on space engineering
- C. To cite a prominent opponent of the idea of space elevators
- D. To point out that Clarke wrote about carbon nanotube technology long before it became a reality

Q34 What can be inferred about the professor when he says this: 重听题

- A. He is enjoying an opportunity to make his students laugh.
- B. He is disappointed that none of his students thought of this idea themselves.
- C. He wants his students to seriously consider an idea they might find surprising.
- D. He has spent a great deal of time researching the idea that he is now presenting.

Speaking

Task 1:

Which of the following jobs or careers do you think would be most rewarding?

- University professor
- Environmental scientist
- Newspaper journalist

Task 2:

Some people like to study in public places where there are other people around. Others prefer to study in places where there are few or no people around. Which kind of place do you prefer? Explain why.

Task 3:

A student has written a letter to the school newspaper. You will have 45 seconds to read the letter. Begin reading now.

Remove Old Bicycles from Campus Racks

I noticed that there are bicycles locked to the campus bicycle racks that have not been moved for a long time. I think the university should remove these bikes from the racks and dispose of them. I recommend this action because, first of all, they will not be missed by anyone, since they apparently have been forgotten by their owners. More important, removing the bikes would help to free up space on the racks, thereby benefiting people who are actually using their bikes and need places to park them.

[] Now listen to two students discussing the letter.

The woman expresses her opinion about the proposal in the letter. Briefly summarize the proposal. Then state her opinion and explain the reasons she gives for holding that opinion.

Task 4:

Read a passage on Scatter Hoarding from a biology textbook. You will have 50 seconds to read the passage. Begin reading now.

Scatter Hoarding

Many animals live in environments where food is plentiful during certain times of the year and scarce during other times of the year. In such environments, some animals []^{OB} collect and prepare food when it is plentiful, then hoard it – store it – for future use. Some types of hoarders engage in scatter hoarding. Unlike other types of hoarders, scatter hoarders do not store the food all in once

place; instead, they scatter it – divide it up and hide it in many different places. Later, at a time when food is scarce, the hoarders return to these hiding places and recover the food.

Now listen to part of a lecture on this topic in a biology class.

Explain how the example from the professor's lecture illustrate the practice of scatter hoarding.

Task 5:

Listen to a conversation between two students.

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.

Task 6:

Listen to part of a lecture in a business class.

Using points and examples from the lecture, explain two ways a company can diversify.

Writing

Task 1

Large numbers of dinosaur fossils have been discovered in deposits on Alaska's North Slope, a region that today experiences an extremely cold, arctic climate. One hundred million years ago, when those dinosaurs were alive, the environment of the North Slope was already inhospitable, especially during the winter when it experienced several months of total darkness. How did the dinosaurs survive the wintertime? Paleontologists have proposed that one of the most common North Slope dinosaurs, the elephant-sized edmontosaurus (*Edmontosaurus*), survived the winter by migrating south to more hospitable regions. Several arguments support the migration hypothesis.

First, the edmontosaurus's diet supports the migration hypothesis. Edmontosaurs fed exclusively on plants. Since there would have been no plants growing during the cold and dark North slope winter, it appears that the edmontosaurus must have left for at least part of the year and migrated to more temperate zones to find food.

Second, many edmontosaurus skeletons have been unearthed from the same site. This suggests that edmontosaurs lived in herd. Many modern-day migratory animals, such as caribou and buffalo, live and migrate in herds as well. Moving in herds helps animals coordinate their migration. The finding that edmontosaurs lived in herds further supports the migration hypothesis.

Finally, edmontosaurs were physically capable of migrating long distances. To reach more hospitable region, the edmontosaurus had to migrate about 1,600 kilometers southward. To make such a journey, the edmontosaurus needed to move at about five kilometers per hour for several weeks, which is certainly possible. These animals could run very fast, reaching speeds up to 45 kilometers per hour. It could have easily used its locomotive power to move to warmer climate during the harsh arctic winters.

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

Task 2

Do you agree or disagree with the following statement?

To improve the quality of education, universities should spend more money on salaries for university professors.

Use specific reasons and examples to support your answer.

