TPO 1

READING

Paragraph 1

Q1 According to paragraph 1, why is play difficult to define?

A. Play must be defined with concepts, not examples.

B. Play behavior often looks like nonplay behavior.

C. Play often occurs in the presence of animals that are not playing.

D. Play occurs independently of an animal's intentions.

Paragraph 2

Q2 According to paragraph 2, which of the following presents a particular challenge to researchers who study play behavior in animals ?

A. The delay between activities and the benefits the animal derives from them.

B. The difficulty in determining which animal species play and which do not.

C. The fact that for most animals, there is no clear transition from youth to full adulthood.

The lack of research on the play behavior of animals other than canid and primates.

Paragraph 3

Q3 The word "considerable" in the passage is closest in the meaning to

A. initial

Role of Play in Development

Play is easier to define with examples than with concepts. In any case, in animals it consists of leaping, running, climbing, throwing, wrestling, and other movements, either along, with objects, or with other animals. Depending on the species, play may be primarily for social interaction, exercise, or exploration. One of the problems in providing a clear definition of play is that it involves the same behaviors that take place in other circumstance -- dominance, predation, competition, and real fighting. Thus, whether play occurs or not depends on the intention of the animals, and the intentions are not always clear from behaviors alone.

Play appears to be a developmental characteristic of animals with fairly sophisticated nervous systems, mainly birds and mammals. Play has been studied most extensively in primates and canids (dogs). Exactly why animals play is still a matter debated in the research literature, and the reasons may not be the same for every species that plays. Determining the functions of play is difficult because the functions may be long-term, with beneficial effects not showing up until the animal's adulthood.

Play is not without considerable costs to the individual animal. Play is usually very active, involving movement in space and, at times, noisemaking. Therefore, it results in the loss of

B. practical
C. eventually
D. significant

Q4 According to paragraph 3, each of the following is a cost to animals that engage in play EXCEPT
A. exposure to predators
B. a buildup of fat stores
C. a loss of fuel that could be used for growth
D. risk of injury from slipping or falling

fuel or energy that might better be used for growth or for building up fat stores in a young animal. Another potential cost of this activity is greater exposure to predators since play is attention-getting behavior. Great activities also increase the risk of injury in slipping or falling.

Paragrapn 4

Q5 Why does the author include the comment "though they were fed the same diets"?
A. To show why rats living in impoverished environments need less food than those living in enriched environments
B. To eliminate the possibility that differences in diet were responsibly for observed differences in brain weight
C. To emphasize the point that rats were fed only the amount of food needed to keep them alive
D. To suggest that rats fed the same diet have smaller brains than those fed a varied food

Q6 Paragraph 4 supports which of the following statements about an animal's brain.
A. The heavier the brain, the richer the environment in which the animal was raised.
B. The younger the animal, the harder it is to develop new connections between nerve cells.
C. The larger the cage in which an animal is kept, the behavior the animal's brain will become.

The benefits of play must outweigh costs, or play would not have evolved, according to Darwin's theory. Some of the potential benefits relate directly to the healthy development of the brain and nervous system. In one research study, two groups of young rats were raised under different conditions. One group developed in an "enriched" environment, which allowed the rats to interact with other rats, play with toys, and receive maze training. The other group lived in an "impoverished" environment in individual cages in a dimly lit room with little stimulation. At the end of the experiments, the results showed that the actual weight of the brains of the impoverished rats was less than that of those raised in the enriched environment (though they were fed the same diets). Other studies have shown that greater stimulation not only affects the size of the brain but also increase the number of connections between the nerve cells. Thus, active play may provide necessary stimulation to the growth of synaptic connections in the brain, especially the cerebellum, which is responsible for motor functioning and movements.

D. The larger an animal's cerebellum, the larger will be the animal's nerve cells.

Paragraph 5

Play also stimulates the development of the muscle tissues themselves and may provide the opportunities to practice those movements needed for survival. Prey species, like young deer or goats, for example, typically play by performing sudden flight movements and turns, whereas predator species, such as cats, practice stalking, pouncing, and biting.

Q7 According to paragraph 5, why might play behavior of prey species be different from those of predator species?

A. Unlike predator species, prey species use play to prevent inappropriate social behaviors, such as biting.

B. Some prey species are physically incapable of certain types of predator movements.

C. The survival of each species type is linked to particular sets of muscular movements.

D. Predator species have more opportunities to practice play behaviors than prey species.

Paragraph 6

Play allows a young animal to explore its environment and practice skill in comparative safety since the surrounding adults generally do not expect the young to deal with threats or predators. Play can also provide practice in social behaviors needed for courtship and mating. Learning appropriate social behaviors is especially important and species that live in groups, like young monkeys that needed to learn to control selfishness and aggression and to understand the give-and-take involved in social groups. They need to learn how to be dominant and submissive because each monkey might have to play either role in the future. Most of these things are learned in the long developmental periods that primates have, during which they engage in countless play experiences with their peers.

Q8 The word "comparative" in the passage is closest in meaning to

A. relative

B. temporary

C. sufficient

D. complete

Q9 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. Only monkeys that have learned to control their selfish and aggressive behaviors can be involved in social groups.

B. Selfish and aggressive animals like monkeys live in groups in order to practice appropriate social behaviors.

C. Monkeys and other social animals need to learn behaviors appropriate for their social

groups.

D. Some monkeys are naturally too selfish and aggressive to understand the give-and-take of social groups, so they learn such important behaviors while young.

Q10 What can be inferred from paragraph 6 about the role of adults in play activities of the young ?

A. Adults help their young learn to become dominant within the social group.

B. Young animals learn how to play from the adults within their social group.

C. Adults allow the young to engage in play behaviors within a protected, safe environment.

D. The long developmental period of some animals allows adults more time to teach their young how to deal with the threats of predators.

Paragraph 7

There is a danger, of course, that play may be misinterpreted or not recognized as play by others, potentially leading to aggression. This is especially true when play consists of practicing normal aggressive or predator behaviors. Thus, many species have evolved clear signals to delineate playfulness. Dogs, for example, will wag their tails, get down their front legs, and stick their behinds in the air to indicate "what follows is just for play."

Q11 The word "potentially" in the passage is closest in meaning to

A. undoubtedly

B. possibly

C. unfortunately

D. quickly

Q12 According to paragraph 7, how do some animals ensure that other animals understand that they are just playing?

A. By playing only with animals who are not predator

B. By avoiding any aspects of the play behavior that are dangerous

C. By practicing nonaggressive and non-predatory behaviors

D. By using a set of signals that occurs only in play

Paragraph 8

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

With messages such as those, even dogs that are strangers to each other can be playing within a few minutes.

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

There is a danger, of course, that play may be misinterpreted or not recognized as play by others, potentially leading to aggression. ■This is especially true when play consists of practicing normal aggressive or predator behaviors.■ Thus, many species have evolved clear signals to delineate playfulness.■ Dogs, for example, will wag their tails, get down their front legs, and stick their behinds in the air to indicate "what follows is just for play." ■

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.
Play appears to be a developmental characteristic of animals with fairly sophisticated nervous systems, mainly birds and mammals.

A. Although play often resembles aggression, flight, or other purposeful activities, researchers do not agree on the reasons for and functions of play

B. Although many animals develop physically from play, too many young animals become victims of their natural predators while playing.

C. Animals such as rats, dogs, deer, goats and monkeys learn how to be both dominant and submissive during play activities so that they will fit in better with their adult social groups.
D. The function of play is still debated in the research literature primarily because each animal species uses so few of the many available types of play behavior.
E. Energy expenditure and security risks are some of the costs to animals of play behavior, but the costs are not so great that they outweigh the long-term benefits of play to the species.
As experiments and observations have shown, animals that play at some stages of their development obtain neurological, muscular, or social benefits from the play behaviors.

Paragraph 1,2

Q1 The word "innumerable" in the passage is closest in the meaning to

A. countless
B. occasional
C. large
D. repeated

Q2 According to paragraph 1, all of the following are true EXCEPT

A. Darwin saw evolutionary change as happening slowly and gradually
B. Gaps in the fossil record were used to explain why it is difficult to see continuous small changes in the evolution of species

The Pace of Evolutionary Change

A heated debate has enlivened recent studies of evolution. Darwin's original thesis, and the viewpoint supported by evolutionary gradualists, is that species change continuously but slowly and in small increments. Such changes are all but invisible over the short time scale of modern observations, and, it is argued, they are usually obscured by innumerable gaps in the imperfect fossil record. Gradualism, with its stress on the slow pace of change, is a comforting position, repeated over and over again in generations of textbooks. By the early twentieth century, the question about the rate of evolution had been answered in favor of gradualism to most biologists' satisfaction.

Sometimes a closed question must be

C. Darwin's evolutionary thesis was rejected because small changes could not be observed in the evolutionary record

D. By the early twentieth century, most biologists believed that gradualism explained evolutionary change

Q3 Which of the sentences below best expresses the essential information in the highlight sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

A. The punctuated equilibrium hypothesis challenged gradualism, which holds that species evolve in relatively sudden bursts of brief duration.

B. The punctuated equilibrium hypothesis developed by Stephen Jay Gould and Niles Eldredge was challenged in 1972.

C. In 1972 Stephen Jay Gould and Niles Eldredge challenged gradualism by positing that change from one species to another cannot occur without a lengthy transition period

D. The punctuated equilibrium hypothesis, in opposition to gradualism, holds that transitions from one species to another occur in comparatively sudden burst.

Q4 According to paragraph 1 and paragraph 2, the punctuated equilibrium hypothesis and the gradualism hypothesis differed about

A. Whether the fossil record is complete

B. Whether all species undergo change

C. Whether evolution proceeds at a constant rate

D. How many new species occur over long periods of time

reopened as new evidence or new arguments based on old evidence come to light. In 1972 paleontologist Stephen Jay Gould and Niles Eldredge challenged conventional wisdom with an opposing viewpoint, the punctuated equilibrium hypothesis, which posits that species give rise to new species in relatively sudden bursts, without a lengthy transition period. These episodes of rapid evolution are separated by relatively long static spans during which a species may hardly change at all.

Paragraph 3

Q5 According to paragraph 3, the lack of intermediate fossils in the fossil record of some species

A. has been extensively studied by paleontologist for over a century

B. contradicts the idea that most species have remained unchanged for millions of years

C. challenges the view that evolutionary change is gradual

D. is most common in the fossil records of clam and coral species

The punctuated equilibrium hypothesis attempts to explain a curious feature of the fossil record --- one that has been familiar to paleontologist for more than a century but has usually been ignored. Many species appear to remain unchanged in the fossil record for millions of years --- a situation that seems to be at odds with Darwin's model of continuous change. Intermediated fossil forms, predicted by gradualism, are typically lacking. In most localities a given species of clam or coral persists essentially unchanged throughout a thick formation of rock, only to be replaced suddenly by a new and different species.

Paragraph 4

Q6 The word " compelling " in the passage is closest in the meaning to

A. surprising

B. persuasive

C. controversial

D. detailed

Q7 Paragraph 4 mentions that North American horses have changed in all of the following ways EXCEPT in

A. the number of toes they have

B. the length of their face

C. their overall size

D. the number of years they live

The evolution of North American horse, which was once presented as a classic textbook example of gradual evolution, is now providing equally compelling evidence for punctuated equilibrium. A convincing 50-million-year sequence of modern horse ancestors --- each slightly larger, with more complex teeth, a longer face, and a more prominent central toe ---seemed to provide strong support for Darwin's contention that species evolve gradually. But close examination of those fossil deposits now reveals a somewhat different story. Horses evolved in discrete steps, each of which persisted almost unchanged for millions of years and was eventually replaced by a distinctive newer model. The four-toed Eohippus preceded the three-toed Miohippus, for example, but North American fossil evidence suggests a jerky, uneven transition between the two. If evolution had been a continuous, gradual process, one might expect that almost every fossil specimen would be slightly different from every year.

Paragraph 5,6

Q8 The word "alteration" in the passage is closest in meaning to

A. imperfection
B. replacement
C. change
D. Duplication

If it seems difficult to conceive how major changes could occur rapidly, consider this: an alteration of a single gene in files is enough to turn a normal fly with a single pair of wings into one that has two pairs of wings.

The question about the rate of evolution must now be turned around: does evolution ever proceed gradually, or does it always occur in short bursts? Detailed field studies of thick rock formations containing fossils provide the best potential tests of the competing theories.

Paragraph 7

Q9 According to paragraph 7, Peter Sheldon's studies demonstrated which of the following about trilobites?

A. They underwent gradual change over a long time period.
B. They experienced a number of discontinuous transitions during their history.
C. They remained unchanged during a long period of environmental stability.
D. They evolved in ways that cannot be counted for by either of the two competing theories.

Q10 The word "Occasionally" in the passage is closest in meaning to

A. Undoubtedly
B. Basically
C. Once in a while
D. To some extent

Occasionally, a sequence of fossil-rich layers of rock permits a comprehensive look at one type of organism over a long period of time. For example, Peter Sheldon's studies of trilobites, a now extinct marine animal with a segmented body, offer a detailed glimpse into three million years of evolution in one marine environment. In that study, each of eight different trilobite species was observed to undergo a gradual change in the number of segments --- typically an increase of one or two segments over the whole time interval. No significant discontinuous were observed, leading Sheldon to conclude that environmental conditions were quite stable during the period he examined.

Q11 The main purpose of paragraph 7 is to

A. Describe one test of the competing

theories
B. Provide an example of punctuated equilibrium
C. Describe how segmented animals evidence both competing theories
D. Explain why trilobites became extinct

Paragraph 8

Q12 Look at the four squares【■】that indicate where the following sentence could be added to the passage.

They believe that environmental conditions may play a crucial role in determining which of the two modes will be in operation over a given period.

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

Directions: selected from the seven phrases below the phrases that correctly characterize punctuated equilibrium and the phrases that correctly characterize gradualism. Two of the phrases will NOT be used. This question is worth 3 points.

Punctuated Equilibrium：

Gradualism：

Punctuated equilibrium:
Gradualism
Answer Choices
A. States that new species emerge from existing species during relatively brief period of time
B. Was first formulated by Charles Darwin
C. Explain why North American horses have become smaller over time
D. States that new species evolve slowly and continuously from existing species
E. Explain the lack of intermediate fossil

■Similar exhaustive studies are required for many different kinds of organisms from many different periods.■ Most researchers expect to find that both modes of transition from one species to another are at work in evolution. ■ Slow, continuous change may be the norm during periods of environmental stability, while rapid evolution of new species occurs during periods of environment stress. ■But a lot more studies like Sheldon′ s are needed before we can say for sure.

forms in the fossil record of many species
F. States that a species will not change unless its environmental changes
Is associated with periods of environmental stability

The Invention of the Mechanical Clock

In Europe, before the introduction of the mechanical clock, people told time by sun (using, for example, shadow sticks or sun dials) and water clocks. Sun clocks worked, of course, only on clear days; water clocks misbehaved when the temperature fell toward freezing, to say nothing of long-run drift as the result of sedimentation and clogging. Both these devices worked well in sunny climates; but in northern Europe the sun may be hidden by clouds for weeks at a time, while temperatures vary not only seasonally but from day to night.

Paragraph 1

Q1 Why does the author provide the information that "in northern Europe the sun may be hidden by clouds for weeks at a time, while temperatures vary not only seasonally but from day to night" ?

A. To emphasize the variety of environments in which people used sun and water clocks to tell time
B. To illustrate the disadvantages of sun and water clocks
C. To provide an example of an area where water clocks have an advantage over sun clocks
D. To counter the claim that sun and water clocks were used all over Europe

Medieval Europe gave new importance to reliable time. The Catholic Church had its seven daily prayers, one of which was at night, requiring an alarm arrangement to waken monks before dawn. And then the new cities and towns, squeezed by their walls, had to know and order time in order to organize collective activity and ration space. They set a time to go to sleep. All this was compatible with older devices so long as there was only one authoritative timekeeper; but with urban growth and the multiplication of time signals, discrepancy brought discord and strife.

Paragraph 2

Q2 According to paragraph 2, all of the following are examples of the importance of timekeeping to medieval European society EXCEPT:

A. the need of different towns to coordinate timekeeping with each other
B. the setting of specific times for the opening and closing of markets
C. the setting of specific times for the start and finish of the working day
D. the regulation of the performance of daily

church rituals

Society needed a more dependable instrument of time measurement and found it in the mechanical clock.

Q3 According to paragraph 2, why did the medieval church need an alarm arrangement?

A. The alarm warned the monks of discord or strife in the town.

B. The church was responsible for regulating working hours and market hours.

C. The alarm was needed in case fires were not put out each night.

D. One of the church's daily rituals occurred during the night.

Q4 The word "authoritative" in the passage is closest in meaning to

A. actual

B. important

C. official

D. effective

Paragraph 3

We do not know who invented this machine, or where. It seems to have appeared in Italy and England (perhaps simultaneous invention) between 1275 and 1300. Once known, it spread rapidly, driving out water clocks but not solar dials, which were needed to check the new machines against the timekeeper of last resort. These early versions were rudimentary, inaccurate, and prone to breakdown.

Q5 The author uses the phrase "the timekeeper of last resort" to refer to

A. water clocks

B. the sun

C. mechanical clocks

D. the church

Q6 The word "rudimentary" in the passage is closest in meaning to

A. rare

B. small

C. impractical

D. basic

Paragraph 4

Ironically, the new machine tended to

Q7 According to paragraph 4, how did the Catholic Church react to the introduction of mechanical clocks?

A. Its used mechanical clocks through the period of urban collapse.

B. It used clocks to better understand natural phenomena, like equinoxes.

C. It tried to preserve its own method of keeping time, which was different from mechanical-clock time.

D. It used mechanical clocks to challenge secular, town authorities.

Q8 The word "installed" in the passage is closest in meaning to?

A. required

B. expected by the majority of people

C. standardized

D. put in place

undermine Catholic Church authority. Although church ritual had sustained an interest in timekeeping throughout the centuries of urban collapse that followed the fall of Rome, church time was nature′ s time. ■Day and night were divided into the same number of parts, so that except at the equinoxes, days and night hours were unequal; and then of course the length of these hours varied with the seasons. ■But the mechanical clock kept equal hours, and this implied a new time reckoning. ■The Catholic Church resisted, not coming over to the new hours for about a century. ■From the start, however, the towns and cities took equal hours as their standard, and the public clocks installed in town halls and market squares became the very symbol of a new, secular municipal authority. Every town wanted one; conquerors seized them as especially precious spoils of war; tourists came to see and hear these machines the way they made pilgrimages to sacred relics.

Paragraph 5

Q9 It can be inferred from paragraph 5 that medieval clockmakers

A. were able to continually make improvements in the accuracy of mechanical clocks

B. were sometimes not well respected by other engineers

C. sometimes made claims about the accuracy of mechanical clocks that were not true

D. rarely shared their expertise with other engineers

The clock was the greatest achievement of medieval mechanical ingenuity. Its general accuracy could be checked against easily observed phenomena, like the rising and setting of the sun. The result was relentless pressure to improve technique and design. At every stage, clockmakers led the way to accuracy and precision; they became masters of miniaturization, detectors and correctors of error, searchers for new and better. They were thus the pioneers of mechanical engineering and served as examples and teachers to other branches of engineering.

Q10 Paragraph 5 answers which of the following

questions about mechanical clocks?

A. How did early mechanical clocks work?

B. Why did the design of mechanical clocks affect engineering in general?

C. How were mechanical clocks made?

D. What influenced the design of the first mechanical clock?

Q11 The word "pioneers" in the passage is closest in meaning to?

A. leaders

B. opponents

C. employers

D. guardians

Paragraph 6

Q12 According to paragraph 6, how did the mechanical clock affect labor?

A. It encouraged workers to do more time-filling busywork.

B. It enabled workers to be more task oriented.

C. It pushed workers to work more hours every day.

D. It led to a focus on productivity.

The clock brought order and control, both collective and personal. Its public display and private possession laid the basis for temporal autonomy: people could now coordinate comings and goings without dictation from above. The clock provided the punctuation marks for group activity, while enabling individuals to order their own work (and that of others) so as to enhance productivity. Indeed, the very notion of productivity is a by-product of the clock: once on can relate performance to uniform time units, work is never the same. One moves from the task-oriented time consciousness of the peasant (working on job after another, as time and light permit) and the time-filling busyness of the domestic servant (who always had something to do) to an effort to maximize product per unit of time.

Paragraph 7

Q13 Look at the four squares【■】that indicate

■Day and night were divided into the same number of parts, so that except at the equinoxes, days and night hours were unequal; and then of

where the following sentence could be added to the passage.

The division of time no longer reflected the organization of religious ritual.

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 introduction of the mechanical clock caused important changes to the society of medieval Europe.

A. The increasing complexity of social and economic activity in medieval Europe led to the need for a more dependable means of keeping time than sun and water clocks provided

B.Because they were unreliable even in sunny climates, sun clocks and water clocks were rarely used in Europe, even before the invention of the mechanical clock.

C.Before the mechanical clock, every city wanted a large number of timekeepers because more timekeepers allowed for better organization of collective activitie.

D.Soon after the invention of the mechanical clock, sun and water clocks became obsolete because mechanical clocks were far more accurate.

E .Although society in general was quickly to adopt the mechanical clock, the catholic church

course the length of these hours varied with the seasons. ■But the mechanical clock kept equal hours, and this implied a new time reckoning. ■ The Catholic Church resisted, not coming over to the new hours for about a century. ■

resisted it because it challenged the authority of the church

F.lockmakers introduced precision engineering, and their clocks gave individuals and groups more control over the organization of the activities

Listening

Q1 Why does the student go to speak with the woman?
A. To get permission to organize a club event.
B. To arrange for a work space for his club.
C. To inquire about a photography class.
D. To reserve a room for photography exhibit.

Q2 What is the student's attitude toward the room he is offered?
A. He thinks that sharing a room is a good way to find out about other clubs.
B. He considers a semiprivate room to be acceptable.
C. He is concerned that there will not be enough storage space in a semiprivate room.
D. He is surprised that there are not enough private rooms for all the clubs.

Q3 Why does the woman ask the student for an approval letter?
A. All new clubs must submit an approval letter to the student activities center.
B. She needs it to request funding for the club on his behalf.
C. She needs proof that the new club has a faculty advisor.
D. The approval letter can serve as verification of the club's registration.

Q4 Near the end of the conversation, what does the student indicate he will have to do?
A. Retrieve a letter from his dormitory room
B. Reschedule some club events
C. Ask a committee to review his registration
D. Pay a registration fee to start a new club

Q5 For what activity does the student consider requesting funding?
A. Designing a club Web site
B. Reserving audio-visual equipment
C. Sponsoring a guest speaker
D. Setting up a campus e-mail account

Q6 What is the lecture mainly about ?
A. The difference between cognition and metacognition

B. A study showing that dolphins have less cognitive capacity than monkeys
C. The effectiveness of using food as a reward in experiments with monkeys
D. Research that investigates whether animals are aware of feeling uncertainty

Q7 Why does the professor mention the inability of animals to report what they are thinking ?
A. To emphasize that language learning is an ability unique to humans
B. To explain why researchers must be sensitive to nuances in animals' behavior
C. To point out a difficulty in testing for metacognition in animals
D. To show the need for advancements in the study of animal communication

Q8 In the dolphin study, how did the researcher make the dolphin's task increasingly difficult ?
A. By showing the dolphin two patterns that were similar in density
B. By playing two sounds that became progressively closer in pitch
C. By producing sounds that were just within the dolphins' range of hearing
D. By introducing a third paddle that ended on trial an began a new one

Q9 According to the professor, what objections did some researchers raise with regard to the dolphin study?
A. The study did not distinguish between learned and higher-level responses.
B. The dolphin was not rewarded consistently for pressing the third paddle.
C. Only one dolphin was used in the experiment.
D. The results could not be replicated in a later study.

Q10 What can be inferred from the results of the study in which monkeys did not receive immediate feedback?
A. The researchers based the study on an incorrect hypothesis.
B. Monkeys respond best to negative reinforcement.
C. Monkeys become confused when they do not receive rewards.
D. Monkeys probably have some degree of metacognitive ability.

Q11 Why does the professor say this?重听题
A. To emphasize the importance of introductory courses
B. To find out whether students have taken a psychology course
C. To imply that students should be familiar with the concept she mentioned

D. To indicate that she is going to review information from a psychology class

Q12 What does the professor mainly discuss?
A. How the parenting behavior of Oviraptors may have differed from that of other dinosaurs
B. Evidence that parenting behavior in birds may have originated with dinosaurs
C. Physical traits shared by dinosaurs, crocodiles, and birds
D. The changing attitudes of the public toward dinosaurs

Q13 What is the professor's attitude toward the name "Obiraptor" ? Click on 2 answers.
A. It accurately represents the behavior of the dinosaur
B. It resulted from an incorrect translation of the original Latin term
C. It was based on a misunderstanding of the fossil evidence
D. It influenced popular attitudes toward dinosaurs

Q14 According to the professor, what behavior is very rare among reptiles?
A. Parenting of the young by males
B. Laying eggs in a nest
C. Returning to the same nest site year after year
D. Stealing eggs from the nests of other reptiles

Q15 What does the professor imply about crocodiles ?
A. They provide fewer clues about dinosaur nesting behavior than birds do.
B. They share many behavioral characteristic with birds like the ostrich and kiwi.
C. They have larger clutch volumes than most dinosaurs had.
D. The female and the male work together to guard their nest.

Q16 What is the function of the spongy tissue in the bones of a female bird?
A. In makes the bird more comfortable while sitting on her eggs for long periods of time.
B. In enables female birds to lay more eggs.
C. It strengthens the bird's bones just before she lays her eggs.
D. It serves as a source of calcium for eggshells.

Q17 What did researchers conclude after analyzing fossilized dinosaur bones found near nests?
A. Many dinosaurs died before they became adults.

B. Male dinosaurs produced a spongy layer of bone.
C. Male dinosaurs probably took care of the eggs.
D. Female dinosaurs seldom went far from their nests.

Q18 What are the speakers mainly discussing?
A. The student's idea about his class assignments
B. The influence of one painter on another
C. The student's recent visit to museum in Connecticut
D. The challenges associated with painting at night

Q19 Why is the student unable to write about the painting by Van Gogh?
A. It is not on the list of approved paintings that the professor provided.
B. It is not available for the student to study in person.
C. The student does not have enough background knowledge to write about it.
D. Another student has already chosen to write about it.

Q20 What does the student say about the painting by Millet?
A. It seemed brighter than he expected.
B. It is on loan to a distant museum.
C. It is his favorite painting.
D. It is located near his family's house.

Q21 According to the speakers, what two features do the Van Gogh painting and the Millet painting have in common? (Click on 2 answers)
A. They have the same name.
B. They exemplify Postimpressionist style
C. They depict a nighttime scene with a lot of light
D. They depict the same star constellation.

Q22 What does the professor imply about the objects held by children in some American miniature portraits?
A. They increase the value of the portraits
B. They reveal historical attitudes.
C. They are difficult to analyze.
D. They were often depicted larger than their actual size.

Q23 What is the lecture mainly about?
A. Evidence proving that water was once on Mars
B. Scientific analyses currently being done on mineral samples from Mars
C. Recent developments that could help determine whether life ever existed on Mars
D. An approach to determining whether amino acids on Earth originated on Mars

Q24 What was discovered on Mars that suggests water once existed there?
A. Microorganisms that can form only in the presence of water.
B. A mineral that can form only in the presence of water.
C. Proteins that have the same structure as proteins found on Earth.
D. Large deposits of iron and potassium that can form only in the presence of water.

Q25 How might jarosite found on Mars differ from jarosite found on Earth?
A. Mars jarosite and Earth jarosite might have been created by different processes.
B. Mars jarosite might have been formed without water.
C. Mars jarosite might not contain as much iron or potassium as Earth jarosite.
D. Mars jarosite might be more acidic than Earth jarosite.

Q26 According to the professor, what are two important capabilities of the microfabricated organic analyzer? (Click on 2 answers)
A. It can accurately test for the presence of water.
B. It can analyze soil samples without returning them to Earth.
C. It can return soil samples back to Earth quickly.
D. It can determine the handedness of amino acids.

Q27 What point does the professor make about the twenty amino acids that occur on proteins on Earth?
A. They can be either right-handed or left-handed.
B. They were synthesized through abiotic processes.
C. They all have a crystalline structure.
D. They are all left-handed.

Q28 What would a prevalence of right-handed amino acids in mineral samples collected on Mars indicate?

A. That amino acids on Mars probably originated on Earth

B. That amino acids existed on Mars long before they existed on Earth

C. That a type of microorganism may have existed on Mars that is different from any on Earth

D. That left-handed amino acids are probably present in some minerals on Mars

Q29 What does the professor mainly discuss?

A. Musical genres that feature the electric guitar

B. Technological advances that made electric guitar possible.

C. The popularity of rock-roll music

D. The evolution of the electric guitar

Q30 What does the professor say about the sailors who were stationed in Hawaii after the Spanish-American War?

A. They helped popularize steel guitar music among the people of Hawaii.

B. They were among the first to play the steel guitar in musical groups.

C. They introduced the steel guitar to the mainland United States.

D. They altered the second of the steel guitar by redesigning its slide.

Q31 Why does the professor mention that the steel guitar was played horizontally?

A. To show how it influenced musical styles such as jazz and blues

B. To explain one way of distorting the sound of a guitar

C. To emphasize the versatility of acoustic guitars

D. To explain the need to amplify the sound of acoustic guitars

Q32 What distinguished Les Paul's guitar from electric guitars that preceded it?

A. It had a solid body.

B. It was played with a sliding steel rod.

C. It relied on distortion to create special effects.

D. It projected sound toward the audience rather than the ceiling.

Q33 What can be inferred about the woman who mentioned Jimi Hendrix?

A. She previously did not understand the significance of Les Paul's contribution to the development of electric guitar.

B. She enjoys listening to music played on an electric guitar more than the professor does.
C. She prefers listening to electric guitar music that is played with no distortion or special effects.
D. She is convinced that Hendrix's style was influenced by Les Paul's guitar design.

Q34 What does the professor mean when he states that Jimi Hendrix's reinvented the electric guitar?
A. Hendrix simplified the guitar design to make it easier to play.
B. Hendrix discovered and corrected defects in previous guitar designs.
C. Hendrix redesigned the guitar to make it louder.
D. Hendrix manipulated the guitar to create a distinctive sound.

Speaking

Task 1:

A friend of yours is looking for a new place to live and has asked for your advice. What do you think is the most important characteristic of a good neighborhood? Use details and examples to explain your answer.

Task 2:

Do you agree or disagree with the following statement?
Parents should be involved in the process of helping their children to choose a career.
Use specific examples and details to support your opinion.

Task 3:

Read a student letter from the campus newspaper. You will have 45 seconds to read the letter. Begin reading now.

Campus Construction Should Happen During the Summer

I've noticed that small construction projects on campus – like fixing sidewalks and parking lots – often take place during the regular school year, when classes are in session. I propose that whenever possible the university should schedule such construction projects to take place during the three-month summer break. One reason is that construction projects can be so disruptive; they create inconveniences and can make it hard to get where you need to go [illegible] on campus. And, second, construction projects would be more likely to be completed quickly if they were scheduled for the summer when the weather is usually good.

Sincerely,
Eric Hughes

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 about the proposal and explain the reasons she gives for holding that opinion.

Task 4:

Read a passage about Emotional Intelligence from a Psychology textbook. You will have 45 seconds to read the passage. Begin reading now.

Emotional Intelligence

We often think of human intelligence as the mental ability to analyze and understand complex ideas. However, many psychologists believe that there is a different type of intelligence called emotional

intelligence. People with emotional intelligence have the ability to recognize their true feelings and understand what is causing them. This ability to understand their own feelings enables them to better control their emotional responses, changing or correcting them when necessary. Emotional intelligence helps people to behave appropriately in social situations, which allow them to maintain good relationships with others.

Now, listen to part of a lecture in a Psychology class.

Explain how the example from the lecture illustrates the concept of emotional intelligence.

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 from a Biology class.

Using the example of the lizard form the lecture, explain two benefits of subsurface locomotion.

Writing

Task 1

A little over 2,200 years ago, the Roman navy attacked the Greek port city of Syracuse. According to some ancient historians, the Greeks defended themselves with an ingenious weapon called a "burning mirror": a polished copper surface curved to focus the Sun's rays onto Roman ships, causing them to catch fire. However, we have several reasons to suspect that the story of the burning mirror is just a myth and the Greeks of Syracuse never rally built such a device.

First, the ancient Greeks were not technologically advanced enough to make such a device. A mirror that would focus sunlight with sufficient intensity to set ships on fire would have to be several meters wide. Moreover, the mirror would have to have a very precise parabolic curvature (a curvature derived from a geometric shape known as the parabola). The technology for manufacturing a large sheet of copper with such specifications did not exist in the ancient world.

Second, the burning mirror would have taken a long time to set the ships on fire. In an experiment conducted to determine whether a burning mirror was feasible, a device concentrating the Sun's rays on a wooden object 30 meters away took ten minutes to set the object on fire; and during that time, the object had to be unmoving. It is unlikely that Roman ships stayed perfectly still for that much time, Such a weapon would therefore have been very impractical and ineffective.

Third, a burning mirror does not seem like an improvement on a weapon that the Greeks already had: flaming arrows. Shooting at an enemy's ships with flaming arrows was a common way of setting the ships on fire. The burning mirror and flaming arrows would have been effective at about the same distance. So the Greeks had no reason to build a weapon like a burning mirror.

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?
It is more enjoyable to have a job and you work only three days a week with long hours rather than work five days a week with shorter hours.
Use specific reasons and examples to support your answer.