TPO 17

READING

Europe's Early Sea Trade with Asia

In the fourteenth century, a number of political developments cut Europe's overland trade routes to southern and eastern Asia, with which Europe had had important and highly profitable commercial ties since the twelfth century. This development, coming as it did when the bottom had fallen out of the European economy, provided an impetus to a long-held desire to secure direct relations with the East by establishing a sea trade. Widely reported, if somewhat distrusted, accounts by figures like the famous traveler from Venice. Marco Polo, of the willingness of people in China to trade with Europeans and of the immensity of the wealth to be gained by such contact made the idea irresistible Possibilities for trade seemed promising, but no hope existed for maintaining the traditional routes over land A new way had to be found.

The chief problem was technological: How were the Europeans to reach the East? Europe's maritime tradition had developed in the context of easily navigable seas—the Mediterranean, the Baltic, and. to a lesser extent, the North Sea between England and the Continent—not of vast oceans. New types of ships were needed, new methods of finding one's

Paragraph 1

1. The word "impetus" in the passage is closest in meaning to

A. return
B. opportunity
C. stimulus
D. obstacle

2. According to paragraph 1 why was it necessary to find anew way for European merchants to reach the East?

A. People in China were finally ready totrade with Europeans
B. The European economy was failing because there was no trade with the East
C. Traditional ways of trading with the East had become very costly
D. Commercial routes over land had become blocked because of political events

Paragraph 2

3. According to paragraph 2 what was the main difficulty Europeans had to overcome in order to develop a new way of trading with the East?

A. Europeans were unwilling to invest in large-scale commercial ventures
B. Europeans lacked the means for navigating long distances across oceans

C. Europeans were unwilling to experiment with new business techniques
D. Europeans lacked knowledge about the commercial methods of other peoples

4. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information
A. The high cost to investors of developing trade by sea between East and West indicates the great size of the profits that such trade could produce
B. The profits that could be created by sea trade between East and West were immense compared with the investment required to develop such trade
C. The increase in commercial activity by using sea routes reflects the importance trade between East and West had for investors seeking great profits
D. Because people made large investments in sea commerce between East and West, they expected to make immense profits

5. The word "dramatically" in the passage is closest in meaning to
A.artifically
B. greatly
C. immediately
D. regularly

6. It can be inferred from paragraph 2 that spices from Asia were desirable in Europe in the Middle Ages because they
A. were easily transported in large quantities

way, new techniques for financing so vast a scheme. The sheer scale of the investment it took to begin commercial expansion at sea reflects the immensity of the profits that such East-West trade could create.■Spices were the most sought-after commodities. ■Spices not only dramatically improved the taste of the European diet but also were used to manufacture perfumes and certain medicines. ■But even high-priced commodities like spices had to be transported in large bulk in order to justify the expense and trouble of sailing around the African continent all the way to India and China.■

B. could not be produced in European countries
C. could be traded for products such as perfumes and medicines
D. were expected to increase in value over time

Paragraph 3

7. According to paragraph 3. all of the following statements comparing the caravel with the galley are true EXCEPT
A. The caravel had fewer masts than the galley.
B. T The caravel had a wider hull than the galley.
C. The caravel could carry more cargo than the galley.
D. The caravel was more stable in rough water than the galley.

8.According to paragraph 3, what did the lateen sail contribute to the caravel as a sailing ship?
A. It provided stability for the front part of the ship
B. It made it possible for the hull to be wider and deeper
C. It added considerably to the speed of the wind-driven ship.
D. It improved the capacity of the ship to be guided.

The principal seagoing ship used throughout the Middle Ages was the galley, a long, low ship fitted with sails but driven primarily by oars. The largest galleys had as many as 50 oarsmen Since they had relatively shallow hulls, they were unstable when driven by sail or when on rough water: hence they were unsuitable for the voyage to the East. Even if they hugged the African coastline, they had little chance of surviving a crossing of the Indian Ocean Shortly after 1400. Shipbuilders began developing a new type of vessel properly designed to operate in rough, open water: the caravel. It had a wider and deeper hull than the galley and hence could carry more cargo: increased stability made it possible to add multiple masts and sails. In the largest caravels, two main masts held large square sails that provided the bulk of the thrust driving the ship forward, while a smaller forward mast held a triangular-shaped sail, called a lateen sail, which could be moved into a variety of positions to maneuver the ship.

Paragraph 4

9. Why does the author include the information that Western Europeans had

The astrolabe had long been the primary instrument for navigation,

developed and put into use the magnetic compass ?

A. To provide an example of an instrument that was developed after caravels had begun traveling across oceans

B. To provide an example of an improvement that resulted directly from the invention of the astrolabe

C. To identify one of the technological advances that made sea trade with the East possible

D. To explain how the problem of determining longitude was solved

10. The word "refined" in the passage is closest in meaning to

A. completed

B. improved

C. drawn

D. checked

11. The word "norms" in the passage is closest in meaning to

A. purposes

B. skills

C. activities

D. rules

12. According to paragraph 4 which of the following is true of the maritime code developed in Europe in the fourteenth century?

A. It mapped out lanes in the seas for trading ships to follow

B. It defined the ways in which people should behave at sea

C. It replaced an earlier code that could not be adapted to the sea trade with the

having been introduced in the eleventh century. It operated by measuring the height of the Sun and the fixed stars: by calculating the angles created by these points, it determined the degree of latitude at which one stood (The problem of determining longitude, though, was not solved until the eighteenth century.) By the early thirteenth century. Western Europeans had also developed and put into use the magnetic compass, which helped when clouds obliterated both the Sun and the stars. Also beginning in the thirteenth century, there were new maps refined by precise calculations and the reports of sailors that made it possible to trace one's path with reasonable accuracy. Certain institutional and practical norms had become established as well. A maritime code known as the Consulate of the Sea. which originated in the western Mediterranean region in the fourteenth century, won acceptance by a majority of sea goers as the normative code for maritime conduct; it defined such matters as the authority of a ship's officers, protocols of command, pay structures, the rights of sailors, and the rules of engagement when ships met one another on the sea-lanes. Thus by about 1400 the key elements were in place to enable Europe to begin its seaward adventure.

East.
D. It gave instructions on how to navigate a ship

13. Look at the four squares ■ that indicate where the following sentence could be added to the passage.
They were highly valued for a couple of reasons.
Where would the sentence best fit?

14. Because land routes to Asia had been cut off in the fourteenth century, Europeans had to find a new way to trade with Asia.
A. Reports by travelers indicated that people in Asia were interested in renewing trade with Europeans.
B. For trade in Asian goods such as spices to be profitable, these items needed to be transported in large quantities by sea
C. Wind-driven caravels were developed to carry cargo across the oceans.
D. Europeans wanted to import spices from Asia in order to improve the taste of food and to make perfumes and medicines
E. European galleys were able to bring Asian goods across the Indian Ocean and around the African coastline.
F. The development of maps, navigational instruments and a maritime code of conduct provided crucial elements for long-distance navigation

---

The chief problem was technological: How were the Europeans to reach the East? Europe's maritime tradition had developed in the context of easily navigable seas—the Mediterranean, the Baltic, and. to a lesser extent, the North Sea between England and the Continent—not of vast oceans. New types of ships were needed, new methods of finding one's way, new techniques for financing so vast a scheme. The sheer scale of the investment it took to begin commercial expansion at sea reflects the immensity of the profits that such East-West trade could create. ■Spices were the most sought-after commodities. ■Spices not only dramatically improved the taste of the European diet but also were used to manufacture perfumes and certain medicines. ■But even high-priced commodities like spices had to be transported in large bulk in order to justify the expense and trouble of sailing around the African continent all the way to India and China.■

Animal Signal in the Rain Forest

The daytime quality of light in forests varies with the density of the vegetation, the angle of the Sun, and the amount of cloud in the sky. Both animals and plants have different appearances in these various lighting conditions. A color or pattern that is relatively indistinct in one kind of light may be quite conspicuous in another.

In the varied and constantly changing light environment of the forest, an animal must be able to send visual signals to members of its own species and at the same time avoid being detected by predators. An animal can hide from predators by choosing the light environment in which its pattern is least visible. This may require moving to different parts of the forest at different times of the day or under different weather conditions, or it may be achieved by changing color according to the changing light conditions. Many species of amphibians (frogs and toads) and reptiles (lizards and snakes) are able to change their color patterns to camouflage themselves. Some also signal by changing color. The chameleon lizard has the most striking ability to do this. Some chameleon species can change from a rather dull appearance to a full riot of carnival colors in seconds. By this means, they signal their level of aggression or readiness to mate.

Paragraph 1

1. The phrase "conspicuous" in the passage is closest in meaning to

A.common

B. noticeable

C. different

D.colorful

Paragraph 2

2. According to paragraph 2 what is problematic about an animal s sending visual signals to members of its own species?

A. signs that make an animal visible to its species also make it visible to predators

B. an animal that changes color to avoid predators can confuse members of its species

C. changing light may require an animal to move beyond the visual range of other members

D. the animal may mistakenly signal aggression when it meant to signal readiness to mate.

3. The word "signal" in the passage is closest in meaning to

A. change

B. imitate

C. communicate

D. hide

4. According to paragraph 2 all of the following are reasons amphibians and reptiles change color EXCEPT

A. changing seasons

B. to signal others of their species

C. to match the light

D. to hide from predators

Paragraph 3

5. According to paragraph 3. butterflies move into spots of sunlight in order to

A. warm their wings in order to open them

B. compete with each other

C. take advantage of favorable light conditions on the forest floor

D. imitate birds of paradise

Other species take into account the changing conditions of light by performing their visual displays only when the light is favorable. A male bird of paradise may put himself in the limelight by displaying his spectacular plumage in the best stage setting to attract a female. Certain butterflies move into spots of sunlight that have penetrated to the forest floor and display by opening and closing their beautifully patterned wings in the bright spotlights They also compete with each other for the best spot of sunlight.

Paragraph 4

6. According to paragraph 4, what is true about light that reaches ground level?

A. It reveals only the yellow and green colors animals use to signal each other.

B. It reflects the yellow and green colors to make the floor as bright as sunshine

C. It camouflages animals whose natural colors are yellow and green

D. It consists mostly of yellow-to-green wavelengths

Very little light filters through the canopy of leaves and branches in a rain forest to reach ground level—or close to the ground—and at those levels the yellow-to-green wavelengths predominate. A signal might be most easily seen if it is maximally bright. In the green-to-yellow lighting conditions of the lowest levels of the forest, yellow and green would be the brightest colors, but when an animal is signaling, these colors would not be very visible if the animal was sitting in an area with a yellowish or greenish background The best signal depends not only on its brightness but also on how well it contrasts with the background against which it must be seen. In this part of the rain forest, therefore, red and orange are the best colors for signaling, and they are the colors used in signals by the ground-walking Australian brush turkey. This species, which lives in the rain forests and scrublands of the east coast of

7. 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. When an animal is signaling in an area with green-to- yellow lightingconditions, its signal will not be visible if the background is brightly lit

B. In the lowest levels of the forest, an animal s signals are not easily see unless there is a yellowish or greenish background

C. In the green-to-yellow lighting conditions at

the lowest levels of the forest, only signals that are themselves green or yellow will be bright enough to be seen in most areas.
D. Although green and yellow would be the brightest colors near the forest floor, these colors would make poor signals whenever the forest background was also in the green-to-yellow range

8. The word "inflating" in the passage is closest in meaning to
A. coloring
B. enlarging
C. loosening
D. heating

9. Which of the following can be inferred from paragraph 4 about yellow and green colors compared with red and orange colors at the bottom of the forest?
A. Yellow and green are better colors for signaling than red and orange colors.
B. Orange and red are brighter colors than yellow and green.
C. Yellow and green are likely to be more common in the background than red and orange
D. Orange and red colors do not contrast as well with the forest floor as yellow and green do

Australia, has a brown-to-black plumage with bare, bright-red skin on the head and neck and a neck collar of orange-yellow loosely hanging skin. During courtship and aggressive displays, the turkey enlarges its colored neck collar by inflating sacs in the neck region and then flings about a pendulous part of the colored signaling apparatus as it utters calls designed to attract or repel. This impressive display is clearly visible in the light spectrum illuminating the forest floor.

Paragraph 5

10. What can be inferred from paragraph 5 about the less colorful birds and animals that inhabit the forest?
A. These species are less able to see color, and therefore they communicate with one another using nonvisual signals.
B. These species generally live in less densely wooded environments than more colorful birds and animals do.
C. The cries of these species do not carry as well

Less colorful birds and animals that inhabit the rain forest tend to rely on forms of signaling other than the visual, particularly over long distances. The piercing cries of the rhinoceros hornbill characterize the Southeast Asian rain forest, as do the unmistakable calls of the gibbons. In densely wooded environments, sound is the best means of

over distances as the cries of more colorful birds and animals.
D. These species depend more on nonvisual signals for communication because they are less visible in their environment

11. The word "impediment" in the passage is closest in meaning to
A. obstruction
B. effort
C. delay
D. resistance

12. The word "exploits" in the passage is closest in meaning to
A. repeats
B. makes use of
C. increases the intensity of
D. recognizes

13. Look at the four squares ■ that indicate where the following sentence could be added to the passage.
There is also the long, rather terrifying call of the male orangutan, which carries over considerable distances to advertise his presence.
Where would the sentence best fit?

14. In the rain forest, an animal must be able to send signals to members of its own species and at the same time avoid being detected by predators.
Answer Choices

communication over distance because in comparison with light, it travels with little impediment from trees and other vegetation. In forests, visual signals can be seen only at short distances, where they are not obstructed by trees. The male riflebird exploits both of these modes of signaling simultaneously in his courtship display. The sounds made as each wing is opened carry extremely well over distance and advertise his presence widely. The ritualized visual display communicates in close quarters when a female has approached.

The daytime quality of light in forests varies with the density of the vegetation, the angle of the Sun, and the amount of cloud in the sky. Both animals and plants have different appearances in these various lighting conditions. A color or pattern that is relatively indistinct in one kind of light may be quite conspicuous in another.

Less colorful birds and animals that inhabit the rain forest tend to rely on forms of signaling other than the visual, particularly over long distances.

■ The piercing cries of the rhinoceros hornbill characterize the Southeast Asian rain forest, as do the unmistakable calls of the gibbons. ■In densely wooded environments, sound is the best means of communication over distance because in comparison with

A. Animals that have different predators at different times of day change color to avoid being detected
B. To be noticed, an animal may draw attention to the contrast between its colors and the colors of its environment.
C. Yellow and green are the most common colors found in the rainforest.
D. To escape notice an animal may move or change color so that its color pattern is not visible
E. Animals must have signals for aggression as well as to indicate readiness to mate
F. An animal may use sound rather than color to attract attention, because sound signals are not hindered by light conditions.

light, it travels with little impediment from trees and other vegetation. ■In forests, visual signals can be seen only at short distances, where they are not obstructed by trees. ■The male riflebird exploits both of these modes of signaling simultaneously in his courtship display. The sounds made as each wing is opened carry extremely well over distance and advertise his presence widely. The ritualized visual display communicates in close quarters when a female has approached.

Symbiotic Relationships

A symbiotic relationship is an interaction between two or more species in which one species lives in or on another species. There are three main types of symbiotic relationships: parasitism, commensalism, and mutualism. The first and the third can be key factors in the structure of a biological community; that is, all the populations of organisms living together and potentially interacting in a particular area.

Parasitism is a kind of predator-prey relationship in which one organism, the parasite, diverse its food at the expense of its symbiotic associate, the host. Parasites are

Paragraph 1
1. Which of the following statements about commensalism can be inferred from paragraph 1?
A. It excludes interactions between more than two species.
B. It makes it less likely for species within a community to survive.
C. Its significance to the organization of biological communities is small.
D. Its role in the structure of biological populations is a disruptive one

Paragraph 2
2. The word "diverse" in the passage is closest in meaning to
A. digests
B. obtains

C. controls
D. discovers

3. According to paragraph 2 which of the following is true of the action of natural selection on hosts and parasites?
A. Hosts benefit more from natural selection than parasites do.
B. Both aggression in predators and defensive capacities in hosts are favored for species survival
C. The ability to make toxic chemicals enables a parasite to find and isolate its host
D. Larger size equips a parasite to prey on smaller host organisms.

usually smaller than their hosts. An example of a parasite is a tapeworm that lives inside the intestines of a larger animal and absorbs nutrients from its host. Natural selection favors the parasites that are best able to find and feed on hosts. At the same time, defensive abilities of hosts are also selected for. As an example, plants make chemicals toxic to fungal and bacterial parasites, along with ones toxic to predatory animals (sometimes they are the same chemicals). In vertebrates, the immune system provides a multiple defense against internal parasites.

Paragraph 3

At times, it is actually possible to watch the effects of natural selection in host-parasite relationships. For example, Australia during the 1940 s was overrun by hundreds of millions of European rabbits.■The rabbits destroyed huge expanses of Australia and threatened the sheep and cattle industries. In ■1950, myxoma virus, a parasite that affects rabbits, was deliberately introduced into Australia to control the rabbit population. ■Spread rapidly by mosquitoes, the virus devastated the rabbit population. ■The virus was less deadly to the offspring of surviving rabbits, however, and it caused less and less harm over the years. Apparently, genotypes (the genetic make-up of an organism) in the rabbit population were selected that were better able to resist the parasite. Meanwhile, the deadliest

4. The word "devastated" in the passage is closest in meaning to
A. influenced
B. infected
C. strengthened
D. destroyed

5. Which of the following can be concluded from the discussion in paragraph 3 about the Australian rabbit population?
A. Human intervention may alter the host, the parasite, and the relationship between them
B. The risks of introducing outside organisms into a biological community are not worth the benefits.
C. Humans should not interfere in host-parasite relationships.
D. Organisms that survive a parasitic attack do so in spite of the natural selection process.

6. According to paragraph 3. all of the following characterize the wav natural selection stabilized the Australian rabbit population EXCEPT:
A. The most toxic viruses died with their hosts.
B. The surviving rabbits were increasingly immune to the virus.
C. The decline of the mosquito population caused the spread of the virus to decline.
D. Rabbits with specific genetic make-ups were favored

strains of the virus perished with their hosts as natural selection favored strains that could infect hosts but not kill them. Thus, natural selection stabilized this host-parasite relationship.

Paragraph 4

7. The word "inadvertently" in the passage is closest in meaning to
A. indefensibly
B. substantially
C. unintentionally
D. partially

In contrast to parasitism, in commensalism, one partner benefits without significantly affecting the other. Few cases of absolute commensalism probably exist, because it is unlikely that one of the partners will be completely unaffected. Commensal associations sometimes involve one species' obtaining food that is inadvertently exposed by another. For instance, several kinds of birds feed on insects flushed out of the grass by grazing cattle. It is difficult to imagine how this could affect the cattle, but the relationship may help or hinder them in some way not yet recognized.

Paragraph 5

8. According to paragraph 5, the relationship between legumes and bacteria benefits the soil by
A. adding enriching carbohydrates
B. speeding the decay of organic matter
C. destroying enzymes that pollute it
D. contributing nitrogen to it

The third type of symbiosis, mutualism, benefits both partners in the relationship Legume plants and their nitrogen-fixing bacteria, and the interactions between flowering plants and their pollinators, are examples of mutualistic association. In the first case, the plants provide the bacteria with carbohydrates and other organic

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

A. The relationship between flowering plants and pollinators provides pollinators with food and flowers with efficient reproduction

B. In some cases birds obtain food from the seeds that are dispersed in the wind.

C. The wind not only helps the flowers distribute their seeds but enables birds to find more food.

D. Animals and insects are more effective in distributing pollen and seeds than the wind

10. According to paragraph 5, which of the following is NOT true of the relationship between the bull s horn acacia tree and the Pseudomyrmex ants?

A. Ants defend the host trees against the predatory actions of insects and animals.

B. The acacia trees are a valuable source of nutrition for the ants.

C. The ants enable the acacia tree to produce its own chemical defenses.

D. The ants protect the acacia from having to compete with surrounding vegetation

Paragraph 6

11. The word "highlights" in the passage is closest in meaning to

A. defines

B. emphasizes

C. reflects

compounds, and the bacteria have enzymes that act as catalysts that eventually add nitrogen to the soil, enriching it. In the second case, pollinators (insects, birds) obtain food from the flowering plant, and the plant has its pollen distributed and seeds dispersed much more efficiently than they would be if they were carried by the wind only. Another example of mutualism would be the bull's horn acacia tree, which grows in Central and South America. The tree provides a place to live for ants of the genus Pseudomyrmex. The ants live in large, hollow thorns and eat sugar secreted by the tree. The ants also eat yellow structures at the tip of leaflets: these are protein rich and seem to have no function for the tree except to attract ants. The ants benefit the host tree by attacking virtually anything that touches it. They sting other insects and large herbivores (animals that eat only plants) and even clip surrounding vegetation that grows near the tree. When the ants are removed, the trees usually die, probably because herbivores damage them so much that they are unable to compete with surrounding vegetation for light and growing space.

The complex interplay of species in symbiotic relationships highlights an important point about communities: Their structure depends on a web of diverse connections

D. suggests

among organisms.

12. What is the main purpose of this passage?

A. To explain the concept of symbiosis by expanded descriptions of its principal types

B. To make a comparison between human relationships and symbiotic interactions in the natural world

C. To demonstrate the unforeseen benefits of natural processes that at first seem wholly destructive

D. To argue that parasitism is a problem that can be solved by scientific intervention

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

This massive population began a century earlier as a mere twelve pairs of imported rabbits that reproduced quickly and developed into a major problem.

Where would the sentence best fit?

At times, it is actually possible to watch the effects of natural selection in host-parasite relationships. For example, Australia during the 1940 s was overrun by hundreds of millions of European rabbits.■The rabbits destroyed huge expanses of Australia and threatened the sheep and cattle industries. In ■1950, myxoma virus, a parasite that affects rabbits, was deliberately introduced into Australia to control the rabbit population. ■Spread rapidly by mosquitoes, the virus devastated the rabbit population. ■The virus was less deadly to the offspring of surviving rabbits, however, and it caused less and less harm over the years. Apparently, genotypes (the genetic make-up of an organism) in the rabbit population were selected that were better able to

14. Symbiotic relationships involve the interaction of two or more organisms acting as partner

Answer Choices

A. Parasitic relationships involve the interplay of aggression by the parasite and resistance and adaptation by the host.

B. Mutualism ordinarily involves an interaction between two members of the same species

C. Mutualism is unique among symbiotic relationships in that it benefits both partners involved in the relationship.

D. Parasitic damage to Australian rabbits

was never reversed because the rabbits were unable to adapt to the parasites attacks.

E. The rarity of commensal relationships stems from the difficulty of finding relationships that benefit one species without affecting the other

F. The structure of biological communities depends on the types of relationships that exist among the species within

resist the parasite. Meanwhile, the deadliest strains of the virus perished with their hosts as natural selection favored strains that could infect hosts but not kill them. Thus, natural selection stabilized this host-parasite relationship.

LISTENING

1. Why does the man visit the professor?
A.To get the professor's approval for his paper topic.
B.To ask for source material for his paper.
C.To ask the professor's opinion about a particular production of a Shakespeare play.
D.To get help finding articles about a play.

2. What is the subject of the man's paper?
A.The influence of film on theater.
B.The transient nature of theater.
C.Modern interpretations of a play by Shakespeare.
D.A comparison of different film versions of Shakespeare's play.

3. What do the speakers say about Peter Brook's production of A Midsummer Night's Dream? Click on 2 answers.
A.It influenced subsequent productions.
B.It was performed only a few times.
C.Written accounts of it are difficult to find.
D.Film versions of it probably do not exist.

4. What point does the professor make when she mentions that some students are writing about 19th century productions of Shakespeare's plays?
A.Other students' paper topics are even more difficult than the man's topic.
B.The man should refer to some nineteenth-century productions in his paper.
C.Students should focus their research on film adaptations of the plays.
D.Theater students often face the same problem the man is facing.

5. Why does the professor say this
A.To point out that the topic of the student's paper has been covered before.
B.To convince the student to write about the production.
C.To persuade the student to change the topic of his paper.
D.To see if the student agrees with her opinion about the production.

6. What is the talk mainly about?
A.Techniques for locating archaeological sites.
B.Methods of preserving archaeological sites.
C.Limitations of some techniques for dating artifacts.
D.Difficulties in determining where artifacts were created.

7. According to the professor, when might stratigraphy provide misleading information about a portable object?
A.When the object has decomposed over time.
B.When the object is older than the site at which it was found.
C.When the object is found in the lowest soil layer of a site.
D.When the object was broken during excavation.

8. What are two disadvantages of radiocarbon dating? Click on 2 answers
A.It cannot be used for dating art made of organic material.
B.It causes damage to the material being analyzed.
C.It can be used for dating only portable art.
D.It cannot prove when a piece of art was made.

9. What is the professor's opinion about the practice of dating a piece of art by analyzing its artistic style?
A. It provides the strongest type of dating evidence.
B.It is more useful for some types of art than others.
C.Use of the practice has improved over the last century.
D.Some analysts make questionable assumption when using it.

10. How does the woman summarize the professor's main point in the talk?
A.By drawing a parallel with a process common to the legal field.
B.By repeating a comment the professor made at the beginning of class.
C.By referring to a study that supports the professor's theory.
D.By comparing the professor's remarks with statements in the textbook.

11. Why does the professor say this
A.To make the point that written records are not important.
B.To explain why the question is worth discussing.

C.To justify the omission of an important point.
D.To express his opinion about the quality of prehistoric art.

12. What is the lecture mainly about?
A.A hypothesis that explains how changes in Earth's motions affect climate.
B.A hypothesis that explains why the shape of earth's orbit varies over time.
C.Reasons it is difficult to find evidence to support hypotheses about the climate.
D.Analyses of the accuracy of data collected in different ways.

13. Why does the professor compare Earth's movements to a watch?
A.To clarify a common misunderstanding.
B.To show in what way Earth is similar to a watch.
C.To emphasize the regularity of Earth's movements.
D.To connect the concepts of orbits and time.

14. Why does the professor mention Northern Hemisphere glaciers?
A.They have a significant effect on the axial tilt of Earth.
B.They play a moderating role on Earth's climate.
C.Their formation could be affected by changes in Earth's orbit.
D.Their melting could result in longer warm seasons.

15. What is the significance of the evidence found on the ocean floor?
A.It negated earlier evidence that Milankovitch found.
B.It led the development of new methods to measure global climate changes.
C.It helped Milankovitch first formulate his hypothesis.
D.It confirmed Milankovitch's hypothesis.

16. What did calcite deposits from Devils Hole reveal?
A.Inaccurate information about long-term climate changes.
B.Evidence that contradicted Milankovitch's hypothesis.
C.Evidence that climate changes occur only locally.
D.Variations in Earth's orbit that had little impact on climate.

17. Why does the professor say this

A.To inform the students about what he will not discuss.
B.To indicate the difficulty of measuring precession.
C.To explain why he plans to spend a long time discussing precession.
D.To clarify that he will provide additional information later.

18. Why does the man go to see the woman?
A.To complain about customers.
B.To request an increase in his pay.
C.To ask for a change in his work schedule.
D.To apply for a job playing music in the dining hall.

19. What activity does the man want to be able to do at dinnertime?
A.Prepare for his morning music classes.
B.Rehearse with a school music group.
C.Play jazz for the faculty in the dining hall.
D.Eat with classmates from his music class.

20. The woman asks the man to consider a different job. What kind of work would the man have to do for the new job?
A.Get ingredients ready for a meal.
B.Clean kitchen equipment for the cooks.
C.Prepare the weekly menu for the dining hall.
D.Coordinate schedules for student workers.

21. What does the man imply about his job as a waiter?
A.It allows him to get to know the professor better.
B.It is his first job at the university.
C.It does not pay as much as other jobs.
D.It interferes with his studies.

22. What does the woman imply when she says this
A.She thinks the man should keep his job as a waiter.
B.She is grateful that the man is willing to work longer hours.
C.The man will have to make many sacrifices to achieve his goals.
D.The man does not appreciate the opportunity she is offering him.

23. What is the lecture mainly about?
A.Differences between modern and ancient calendars.
B.The importance of astronomy in Egyptian religion.
C.The timekeeping system of ancient Egypt.
D.How to use agriculture as a method of timekeeping.

24. Why does the professor mention the names of the seasons in ancient Egypt?
A.To explain the importance of religion.
B.To emphasize the significant of the Nile River.
C.To indicate when different types of crops were harvested.
D.To describe early discoveries in astronomy.

25. Why was the helical rising if Sirius important to the Egyptians? Click on 2 answers.
A.It helped determine the beginning of the New Year.
B.It was used to calculate the length of the month.
C.It marked the beginning of harvest time.
D.It indicated when the Nile would flood.

26. Once the Egyptians realized the significance of the heliacal rising of Sirius, what change did they make to their agricultural calendar?
A.They made each month exactly 30 days.
B.They shortened the length of the year.
C.They added a religious festival date to celebrate the heliacal rising of Sirius.
D.They allowed the number of months in the year to vary.

27. What are two points the professor makes about the administrative calendar? Click on 2 answers.
A.It included more religious festivals than did the other calendar.
B.It was used for scheduling tax payments.
C.It had the same number of days every year.
D.It used the Moon to determine the beginning of the year.

28. What is the professor explaining when she says this
A.The weakness of the Egyptian bureaucracy.

B.The Egyptians' motivations for developing a second calendar.
C.The importance of accurately predicting when the Nile would flood.
D.The problems that result from using two calendars.

29. What is the lecture mainly about?
A.Different kinds of color vision in sea animals.
B.Differences in appearance between various species of octopus.
C.Ways that octopuses attract their prey.
D.Ways that octopuses protect themselves from predators.

30. Why does the professor first mention Proteus?
A.To explain how the octopus got its scientific name.
B.To introduce the octopus' exceptional abilities.
C.To point out that the octopus played an important role in Greek mythology.
D.To provide an example of a mythological character that was part animal and part human.

31. How does an octopus change color to match the colors in its environment? Click on 2 answers
A.By raising its papillae.
B.By releasing colored ink.
C.By reflecting light from its environment.
D.By contracting the muscles around its chromatophores.

32. What does the professor say about the function of the papillae?
A.They produce dye in different colors.
B.They propel the octopus through the water.
C.They change the texture of the octopus' skin.
D.They help the octopus contract into a smaller shape.

33. What two examples does the professor mention to describe the octopus' ability to change its shape? Click on 2 answers
A.A small round stone
B.The leaves of a plant
C.A cloud of ink.
D.A piece of coral.

34. Why does the professor say this

A.To point out an error.

B.To illustrate a point.

C.To propose an explanation.

D.To correct a misunderstanding.

SPEAKING

1.Talk about a special opportunity that was given to you. Explain why the opportunity was important. 【事件】

2. State whether you agree or disagree with the following statement. Then explain your reasons, using specific details in your explanation. Students should not be allowed to bring cell phones into the classroom. 【agree】

3.New Library Workspaces

Say good-bye to the big, multiperson study tables in Turner Library. This summer, the tables will be exchanged for new personal study cubicles---small, one-person desks enclosed by walls. These new units will allow students to have privacy and work in isolation and will therefore eliminate noise in the library so students can concentrate. Additionally, the cubicles will enable the library to accommodate the recent increase in the number of students attending our university. Although the current tables seat six students each, they make poor use of the available floor space. The cubicles, on the other hand, are designed for maximum space efficiency, and the library can therefore add 50 new seats.

The man expresses her opinion about the upcoming change. State her opinion and explain the reasons she gives for holding that opinion.

4. Ritualization

Sociobiologists believe that some communicative behavior in animals is developed through a process called ritualization. In this process, the purpose of a give behavior changes over time---a behavior that originally had a practical purpose develops into one that communicates a specific message. For example, a certain movement or physical feature might evolve to serve as a signal or a warning that other animals will understand. Once a behavior is ritualized, it becomes a form of communication; therefore, if an animal engages in this behavior, other animals will be able to interpret the meaning of the behavior quickly and respond appropriately.

Explain the concept of ritualization, using the example of dogs discussed by the professor.

5.The speakers discuss two possible solutions to the man's problem. Briefly summarize the problem. Then state which solution you would recommend and explain the reasons for your recommendation.

6. Using the points and examples from the talk, explain the concept of **diffusion.**

WRITING

TASK 1

In the past century, the steady growth of the human population and the corresponding increase in agriculture and pesticide use have caused much harm to wildlife in the United States—birds in particular. Unfortunately for birds, these trends are likely to continue, with the result that the number of birds in the United States will necessarily decline.

First, as human populations and settlements continue to expand, birds' natural habitats will continue to disappear. Forests, wetlands, and grasslands will give way to ever more homes, malls, and offices. As the traditional areas suitable for birds keep decreasing, so will the size of the bird populations that depend on those vanishing habitats.

Second, agricultural activities must increase to keep pace with the growing human population. The growth of agriculture will also result in the further destruction of bird habitats as more and more wilderness areas are converted to agricultural use. As a result, bird populations in rural areas will continue to decline.

Third, as human settlements expand and agriculture increases, the use of chemical pesticides will also increase. Pesticides are poisons designed to kill agricultural and home garden pests, such as insects, but inevitably, pesticides get into the water and into the food chain for birds where they can harm birds. Birds that eat the poisoned insects or drink contaminated water can die as a result, and even if pesticides do not kill birds outright, they can prevent them from reproducing successfully. So pesticides have significantly contributed to declines in bird population, and because there will continue to be a need to control agricultural pests in the future, this decline will continue.

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

TASK 2

Most advertisements make products seem much better than they really are.