**托福阅读真题**

**四箭齐发出品**

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第1套

本套的三篇真题出自不同的日期，分别为15年12月13日，11月14日（此篇较难，附语言点讲解和分析），9月13日。

Newspaper in Western Europe（15年12月13日真题，17年3月11日再次考到）

By the eighteenth century, newspapers had become firmly established as a means of spreading news of European and world affairs, as well as of local concerns, within European society. One of the first true newspapers was the Dutch paper Nieuwe Tijdingen. It began publication in the early seventeenth century at about the same time that the overseas trading company called the Dutch East India Company was formed. The same ships that brought goods back from abroad brought news of the world, too.

1.According to paragraph 1，what was true about the Dutch paper Nieuwe Tijdingen ?

A.It reported news mainly about ships and trade goods

B.It was established in the eighteenth century

C.It was among the first real newspapers in Europe.

D.It was published by an overseas trading company.

Dutch publishers had an advantage over many other publishers around Europe because the Netherlands’ highly decentralized political system made its censorship laws very difficult to enforce. Throughout Europe in the seventeenth century, governments began recognizing the revolutionary potential of the free press and began requiring licenses of newspapers—to control who was able to publish news. Another tactic, in France and elsewhere on the continent from the 1630s onward, was for governments to sponsor official newspapers. These state publications met the increasing demand for news but always supported the government’s views of the events of the day.

1. Paragraph 2 suggests that the main reason why governments began to license newspapers was

A.to make sure that newspapers were of high quality

B.to provide their countries' publishers with an advantage over other European publishers

C.to reduce competition among government-sponsored newspapers

D.to help control the public's attitudes about the news

3.According to paragraph 2, what was true about official government newspapers?

A.They made censorship laws more difficult to enforce

B.They expanded the revolutionary potential of the press

C.They appeared first in the Netherlands,

D.They always agreed with the government's opinion.

By the eighteenth century, new conditions allowed newspapers to flourish as never before. First, demand for news increased as Europe’s commercial and political interests spread around the globe—merchants in London, Liverpool，or Glasgow, for example, came to depend on early news of Caribbean harvests and gains and losses in colonial wars. Europe's growing commercial strength also increased distribution networks for newspapers. There were more and better roads, and more vehicles could deliver newspapers in cities and convey them to outlying towns. Newspaper publishers made use of the many new sites where the public expected to read, as newspapers were delivered to cafes and sold or delivered by booksellers.

4.According to paragraph 3, why did demand for news increase in the eighteenth century?

A.People wanted to read about the new books being sold by booksellers

B.Governments wanted to make sure their colonies were being governed efficiently.

C.Merchants needed to know how their businesses would be affected by events in other countries.

D.Owners of cafes needed to predict how foreign harvests might affect food prices

Second, many European states had established effective postal systems by the eighteenth century. It was through the mail that readers outside major cities and their environs—and virtually all readers in areas where press censorship was exercised firmly— received their newspapers. One of the most successful newspapers in Europe was a French-language paper (one of the many known as La Gazette,) published in Leiden, in the Netherlands, which boasted a wide readership in France and among elites throughout Europe.

5.The word “exercised” in the passage is closet in meaning to

A.critized

B.rejected

C.applied

D.defended

6.In paragraph 4, why does the author mention a French language paper that was published in Leiden?

A.To show that the most successful newspapers in Europe tended to be French-language newspapers.

B.To illustrate the important role played by the mail in the distribution of newspapers

C.To provide evidence that newspapers were being read by the elites of Europe

D.To establish that the Netherlands had one of the most effective postal systems in Europe

Finally, press censorship faltered in one of the most important markets for news—England— at the turn of the eighteenth century after 1688. Debate raged about whether the Parliament or the Crown had the right to control the press, and in the confusion the press flourished. The emergence of political parties further hampered control of the press because political decisions in Parliament now always involved compromise, and many members believed that an active press was useful to that process. British government’s control of the press was reduced to taxing newspapers, a tactic that drove some papers out of business.

7.The word "emergence” in the passage is closest in meaning to

A. influence

B. activity

C. rise

D. success

8.The word "tactic” in the passage is closest in meaning to

A. strategy

B. situation

C. requirement

D. reason

9.According to paragraph 5, many members of Parliament held which of the following views about the English press?

A. It had the effect of increasing tensions between Parliament and the monarchy

B. It created pressure that encouraged political opponents to reach agreement

C. It helped create the confusion that led to the emergence of political parties

D. It could be more effectively controlled by compromise than by taxing newspapers

Eighteenth-century newspapers were modest products by modern Western standards. Many were published only once or twice a week instead of every day, in editions of only a few thousand copies. Each newspaper was generally only four pages long. Illustrations were rare，and headlines had not yet been invented. Hand-operated wooden presses were used to print the papers, just as they had been used to print pamphlets and books since the invention of printing in the fifteenth century.

10. According to paragraph 6，all of the following are true of eighteenth- century newspapers EXCEPT

A. They usually were published no more than twice a week

B. They generally consisted of four pages

C. They included numerous illustrations.

D. They had no headlines

Yet these newspapers had a dramatic impact on their reading public. Regular production of newspapers (especially of many competing newspapers) meant that news was presented to the public at regular intervals and in manageable amounts. Even strange and threatening news from around the world became increasingly easy for readers to absorb and interpret. Newspaper readers also felt themselves part of the public life about which they were reading. This was true partly because newspapers, available in public reading rooms and in cafes, were one kind of reading that occupied an increasing self-aware and literate audience. Newspapers also were uniquely responsive to their readers. They began to carry advertisements, which both produced revenue for papers and widened readers' exposure to their own communities. Even more important was the inauguration of letters to the editor in which readers expressed their opinions about events. Newspapers thus became venues for the often rapid exchange of news and opinions.

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

A. consequently

B. regularly

C. in addition

D. soon

12. According to paragraph 7，newspapers had all of the following effects on their readers EXCEPT

A. They found it easier to understand news from other countries

B. They became more successful in business than those who did not read newspapers

C. They became better connected to their local communities.

D. They could write about their own opinions on current events

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

And even when it was possible to apply laws limiting speech, authorities were reluctant to do so because of the growing economic importance of the commercial book market.

Dutch publishers had an advantage over many other publishers around Europe because the Netherlands’ highly decentralized political system made its censorship laws very difficult to enforce. ■Throughout Europe in the seventeenth century, governments began recognizing the revolutionary potential of the free press and began requiring licenses of newspapers—to control who was able to publish news. ■Another tactic, in France and elsewhere on the continent from the 1630s onward, was for governments to sponsor official newspapers.■These state publications met the increasing demand for news but always supported the government's views of the events of the day. ■

14. Summary:

By the eighteenth century, newspapers had become established as a means of spreading news of European affairs within European society.

A.Governments tried to control what news got published by sponsoring official newspapers, taxing publishers, requiring newspapers to be licensed, and instituting press-censorship laws.

B.England was the most Important market for news, but disruptions caused by conflict over how the government should control the press resulted in many British newspapers being driven out of business.

C.Censorship laws were established and enforced differently across Europe because of differences in the political systems of the various countries.

D.Europe's expanding commercial and political interests led to increased demand for news and also to improved systems for distributing newspapers

E.Although eighteenth-century newspapers were modest by modern standards, they made current events accessible to the reading public and facilitated the rapid exchange of news and opinions.

F.Newspapers' regular presentation of strange and threatening news from around the world had the effect of making their readers feel more closely connected to their own local communities.

The Plow and the Horse in Medieval Europe（15年11月14日）

Paragraph 1

One of the most important factors driving Europe’s slow emergence from the economic stagnation of the Early Middle Ages (circa 500-1000 B.C.E.) was the improvement of agricultural technology. One innovation was a new plow, with a curved attachment (moldboard) to turn over wet, heavy soils, and a knife (or coulter) in front of the blade to allow a deeper and easier cut. This more complex plow replaced the simpler “scratch” plow that merely made a shallow, straight furrow in the ground. In the lands around the Mediterranean, with light rains and mild winters, this had been fine, but in the wetter terrain north and west of the Danube and the Alps, such a plow left much to be desired, and it is to be wondered if it was used at all. 【Cleared lands would more likely have been worked by hand tilling, with little direct help from animals, and the vast forests natural to Northern Europe remained either untouched, or perhaps cleared in small sections by fire, and the land probably was used only so long as the ash-enriched soil yielded good crops and then abandoned for some other similarly cleared field.】 Such a pattern of agriculture and settlement was no basis for sustained cultural or economic life.

1. The word “stagnation” in the passage is closest in meaning to

A. instability

B. lack of growth

C. dependence on others

D. decline

2. According to paragraph 1, what was the main advantage of the new plow over the scratch plow?

A. The new plow created straighter rows.

B. The new plow was easier for animals to pull.

C. The new plow could dig deeper into the soil.

D. The new plow was easier to make

3. The word “sustained” in the passage is closest in meaning to

A. continued

B. established

C. ordinary

D. active

4. According to paragraph 1, the scratch plow was particularly unsuited to

A. the lands around the Mediterranean

B. places where the soil was often dry

C. places where land was cleared and worked by hand

D. places where the soil was particularly wet and heavy

5. Paragraph 1 implies which of the following about agriculture before the introduction of the new plow?

A. Limited rainfall had prevented large-scale agricultural development.

B. Most of Europe’s developed agricultural communities were located in the south.

C. Several other important innovations immediately preceded the development of the new plow.

D. Much of Europe’s forestland had been converted to agricultural use.

6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information. （原文加【】的地方）

A. Tilling by hand was so difficult that cleared land in Northern Europe was often abandoned and allowed to return to its natural forested state.

B. Cleared land was probably tilled by hand, while the forests of Northern Europe were cleared only in small sections and used for short periods.

C. In the vast natural forests of Northern Europe, farmers had to work the and by hand, with little direct help from animals.

D. Fire enabled northern European farmers to enrich cleared land enough to cultivate their crops for short periods of time.

Paragraph 2

With the new heavy plow, however, fields could be cleared, sowed, and maintained with little more difficulty than in the long-settled lands of Southern Europe, while the richness of the new soils, the reliability of the rains, and the variety of crops now possible made for an extremely productive agriculture. The new tool, however, imposed new demands, technical, economic, and social. The heavy plow was a substantial piece of capital, unlike a simple hand hoe, and this had the same sorts of implications that capitalization always has—it favored the concentration of wealth and control. Moreover, making full use of it required more animal power, and this had a host of implications of its own. The full importance of this was even more apparent in the centuries after 1000, when oxen began to give way in certain parts of Western Europe to horses.

7. The word “implications” in the passage is closest in meaning to

A. requirements

B. inequalities

C. consequences

D. disadvantages

8. What can be inferred from the information that the new plow “favored the concentration of wealth and control”?

A. Wealthy farmers in the south had a significant economic advantage over farmers in the north.

B. The production and sale of the new plow became an important source of capital.

C. The new plow was more popular in parts of Europe where oxen were used for farming than in parts where horses were used.

D.Greater economic equality existed in northern Europe before the introduction of the new plow

Paragraph 3

The powerful, rugged farm horse was itself a product of improvement during the Middle Ages, and it was part of complex set of technical changes and capabilities. The introduction of new forms of equipment for horses transformed this animal into the single most important assist to human labor and travel. Instead of the old harness used by the ancient Greeks and Romans, there appeared from Central Asia the rigid, padded horse collar. Now, when the horse pulled against a load, no longer did the load pull back against its neck and windpipe but rather rode on the sturdy shoulders. When this innovation was combined with the iron horseshoe, the greater speed and stamina of the horse displaced oxen wherever it could be afforded. The large importance of this lay not only in more efficient farmwork, but in swifter and surer transportation between town and countryside. The farmer with horses could move products to market more frequently and at greater distances than with only oxen, and the urban development that was to transform the European economic and social landscape after the eleventh century was propelled in large part by these new horse-centered transport capabilities.

9. According to paragraph 3, which of the following contributed to the dramatic rise in the agricultural use of horses in Europe?

A. A powerful new breed of farm horse was brought to Europe from Central Asia.

B. Farmers began using rigid, padded collars that allowed horses to pull heavy loads more easily.

C. For the first time, horses became cheaper than oxen.

D. Farmers began studying the farming techniques used by the ancient Greeks and Romans.

10. According to paragraph 3, what role did horses play in the larger social changes of the eleventh century?

A. The raising and selling of horses became important economic and cultural activities in Europe.

B. Horses stimulated the growth of urban areas by providing quick, reliable transportation.

C. Owners of successful horse-based farms became influential members of society.

D. Horse transportation enabled Europeans to interact with other cultures like those of Central Asia.

Paragraph 4

Another indicator of how compelling and important was the new horse agriculture was its sheer cost. Unlike oxen and other cattle, horses cannot be supported exclusively on hay and pasturage, they require, particularly in northern climates where pasturing seasons are short, cropped food, such as oats and alfalfa. Unlike grass and hay, these are grown with much of the same effort and resources applied to human nourishment, and thus their acquisition represents a sacrifice, in a real sense, of human food. The importance of this in a world that usually lived at the margins of sufficient diet is hard to overstate. The increased resources that went into making the horse central to both the medieval economy and in a separate but related development, medieval warfare, are the surest sings of the great utility the animal now assumed.

11. The word “ exclusively” in the passage is closest in meaning to

A. cheaply

B. easily

C. reliably

D. solely

12. In paragraph 4, why does the author emphasize the amount of effort and resources needed to grow alfalfa and oats?

A. To illustrate how valuable horses were by showing how much farmers were willing to sacrifice to keep them

B. To provide evidence that, in medieval Europe, both horses and humans lived at the margins of a sufficient diet

C. To argue that it made more sense to devote land to growing food for humans than to growing food for horses

D. To explain why oxen and other cattle that ate grass and hay continued to be more common than horses

13. Look at the four squares [] that indicate where the following sentence

could be added to the passage.

In fact, it sliced the ground so thoroughly that fields could be planted after only one plowing rather than the two needed before.

One innovation was a new plow, with a curved attachment (moldboard) to turn over wet, heavy soils, and a knife (or coulter) in front of the blade to allow a deeper and easier cut.【】This more complex plow replaced the simpler “scratch” plow that merely made a shallow, straight furrow in the ground.【】In the lands around the Mediterranean, with light rains and mild winters, this had been fine, but in the wetter terrain north and west of the Danube and the Alps, such a plow left much to be desired, and it is to be wondered if it was used at all. 【】Cleared lands would more likely have been worked by hand tilling, with little direct help from animals, and the vast forests natural to Northern Europe remained either untouched, or perhaps cleared in small sections by fire, and the land probably used only so long as the ash-enriched soil yielded good crops and then abandoned for some other similarly cleared field.【】Such a pattern of agriculture and settlement was no basis for sustained cultural or economic life.

Where would the sentence best fit?

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

Agricultural innovations with important social and economic consequences occurred in eleventh-century Europe

Answer choices

A. Light rains and unpredictable winters had made most of the soil in Europe unsuitable for enough agriculture to sustain economic development

B. Farmers switched from oxen to horses to pull their plows because inexpensive pasturage for oxen decreased significantly in the centuries after 1000 B.C.E.

C. The introduction of iron horseshoes enabled farmers to transport goods farther than they could with the more expensive oxen.

D. Improvements in the design of plows opened up vast areas of land in Northern Europe that had previously been unusable for sustained agriculture.

E. With help from a new kind of harness from Asia, horses were able to pull the new heavy plow and to transport goods to market more quickly and frequently.

F. The horse came to be valued so greatly that farmers devoted some of their land to growing crops for their horses rather than using this land to grow food for their families.

Mating Songs of Frogs（15年9月13日真题）

The calling or singing of frogs plays an important role in their reproduction—specifically, in helping individuals find and select mates. Sound has many advantages as a communication signal. When sounds are broadcast, the auditory receptors do not need to be in a particular orientation relative to the sound source in order to receive stimulation. Loud songs, particularly those made by choruses of frogs calling together, can travel long distances and thus attractdistant frogs. Sounds travel around large obstacles. These advantages are not found in the visual modality, where the receiver must be attentive and have its visual receptor orientated in the correct direction. Further, most frogs and toads breed at night, when light levels are low but sounds can be easily localized. We can conclude that auditory signals are used by frogs and toads because they can be effective over long distances at night.

1. According to paragraph 1, all of the following are mentioned as true of the mating calls of frogs EXCEPT:

A. They can reach frogs in far-off locations.

B. They are not blocked by objects of substantial size.

C. They are often combined with non-auditory signals.

D. They can be received without the frog’s needing to orient itself toward the directionof the signal.

2. The author provides information about "the visual modality" in order to

A. emphasize that visual information plays a significant part in frog breeding

B. explain why some frogs breed at night, while others breed during the day

C. indicate the resourcefulness with which frogs overcome obstacles in sound travel during the breeding process

D. argue that auditory signals have advantages over visual signals for frog reproduction

Male frogs do most of the courtship calling. Other male frogs can respond by adding their voices to form a calling chorus. Male frogs can also vocalize to each other as part of aggressive displays. Aggressive calls can be distinct from the advertisement calls used to attract females. Females can respond to male songs by moving toward the sound source or by selecting certain males as reproductive partners. In some species females also respond to males by calling: receptive pairs can even perform duets. Predators may also cue in on calling frogs as potential prey.

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

A. occasional

B. possible

C. easy

D. hidden

Frog songs contain several potentially important pieces of information about the calling male. First, sound amplitude can indicate the size of the individual that is Galling. Since many frogs exhibit indeterminate growth (i.e., they keep getting bigger as they get older), size is a good predictor of relative age. In many species, call amplitude is increased by specialized vocal sacs that can enlarge as the animal grows; thus, older frogs produce louder calls. The male’s age matters to the female because older frogs have successfully survived the environmental hazards that the offspring they sire will soon be facing. Amplitude can also convey information on how far away the calling frog is or, for choruses, how many frogs are calling together. An intensely vocalizing chorus may indicate a particularly favorable breeding site. Sound amplitude (subjectively: loudness) can be an ambiguous cue for a female, however. A very intense sound can indicate an old male at some distance or a younger male that is close. A close, small chorus could be confused with a louder chorus that is farther away.

4.The word "favorable” in the passage is closest in meaning to

A. well populated

B. distant

C. extensive

D. advantageous

5.According to paragraph 3，female frogs who listen to frog songs are trying to determine whether a future mate

A. can protect future offspring from predators

B. has an important social position within the male chorus

C. has reached an age that indicates the ability to survive environmental challenges

D. is young enough to be able to produce many offspring

6.It can be inferred from paragraph 3 that female frogs are seeking mates who

A. can inhabit a variety of breeding sites

B. can occupy habitats at a distance from those of younger male frogs

C. have protected previous mates from environmental hazards

D. are likely to pass on traits that strengthen their offspring's chances of survival

Sound frequencies-or pitch-can also convey information about the calling male because the vocal apparatus grows larger as the frog grows older. In some frogs, the pitch of individual sounds varies with so that older and larger males give lower-pitched calls. Sound pitch is affected by temperature; small males can mimic the lower pitch of larger, older males by calling from colder locations. Finally, the length of time that an individual can afford to spend calling is a good indicator of his health. Many frogs invest considerable energy in calling, both because they do not feed and because it is a physically demanding behavior that relies on rapid muscular contractions of the vocalization apparatus. This effort can be debilitating in a male frog that is not in top physical condition. Calling in tree frogs is said to be the most energetically expensive behavior yet measured in any vertebrate.

7. The word "ambiguous" in the passage is closest in meaning to

A. unexpected

B. unclear

C. important

D. unhelpful

8.The word "convey" in the passage is closest in meaning to

A. transmit

B. add to

C. amplify

D. correct

9.Paragraph 4 implies that young frogs may call from cold areas for which of the following reasons?

A. To indicate superior strength over older males

B. To appear more attractive to females by sounding older than actuallyare

C. To be able to spend less energy in producing their call

D. To compete against fewer males for a female’s attention

10.In paragraph 4, why does the author mention that tree frog calling is said to be “the most energetically expensive behavior yet measured in any vertebrate"?

A. explain why it is important for tree frogs to be in top physical condition

B. To distinguish tree frogs from other species of frogs

C. To indicate that survival is more difficult for frogs than for other vertebrates

D. To emphasize how physical effort calling requires

Sound frequencies and the overall temporal pattern (rhythm and rate) of the song can also reveal the species of the calling male. The frequencies sounds and their temporal patterns are species- specific. The species of a potential mate is extremely important to the female. Females that choose to mate with members of another species risk losing the energy invest in eggs because the hybrid offspring will not survive and reproduce.

11.It can be inferred paragraph 5 that having species specific songs benefits frogs in which of the following ways?

A. It enables frogs to better protect eggs from being damaged by members of other species.

B. It make it possible for frogs to judge their distance from potential mates.

C. It helps frogs to avoid having offspring that cannot survive and reproduce

D. It makes it possible for frogs to invest more of their energy into producing eggs.

Thu complexity of a frog song can also affect how attractive it is to a female. The songs of male tungara frogs, for example, can consist simply of short high-frequency“whines” or by several lower-frequency "chucks." More females approach loudspeakers playing whines plus chucks than whines alone. The addition of chucks, however, also has the disadvantage of attracting bats that eat the frogs.

12.According to paragraph 6, tungara frogs add a chuck sound to their call in order to

A. make themselves more attractive to females

B. keep predators at a safe distance

C. attract frogs of different species

D. increase the loudness of their calls

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

But a frog’s age is not the only influence on the pitch of a frog’s call.

Where would the sentence best fit?

■Sound frequencies-or pitch-can also convey information about the calling male because the vocal apparatus grows larger as the frog grows older. ■In some frogs, the pitch of individual sounds varies with so that older and larger males give lower-pitched calls. ■Sound pitch if affected by temperature; small males can mimic the lower pitch of larger, older males by calling from colder locations. ■Finally, the length of time that an individual can afford to spend calling is a good indicator of his health. Many frogs invest considerable energy in calling, both because they do not feed and because it is a physically demanding behavior that relies on rapid muscular contractions of the vocalization apparatus. This effort can be debilitating in a male frog that is not in top physical condition. Calling in tree frogs is said to be the most energetically expensive behavior yet measured any vertebrate.

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

The calling or singing of frogs is a form of communication.

1.For frogs and toads, sound has a number of advantages over visual signals as a medium of communication over long distances at night.

2.Calling is performed primarily by male frogs to attract mates for reproduction and to actively compete with other male frogs for females.

3.Depending on the species, female frogs can obtain information from a male’s song about age, health, and species of the caller.

4.In some species both males and females produce mating songs either as individual pairs or as choruses, though the choruses are likely to attract predators；

5.Frogcalls are difficult to interpret because old frogs and young frogs in cool places produce the same song, and near frogs that are old and weak can sound like fit young frogs calling from a distance.

6.Becausecalling is such a tiring activity for frogs, it is used to communicate only about biologically necessary activities and often in groups that distribute the calling effort among many individuals.

答案

Newspaper in Western Europe（此篇17年3月11日考过）

西欧报纸业的发展: C D D C C; B C A B C; A B A ADE

The Plow and the Horse in Medieval Europe

The Plow and the Horse in Medieval Europe答案：B C A D B; B C D B B; D A A DEF

Mating Songs of Frogs

青蛙求偶时的叫声:C D B D C D B A B A C A C 123

第2套

混编第二套

Economic Decline in Europe during the 14th Century（15年11月8日真题，这篇在17年3月4日又考过）

Paragraph1

After three hundred years of impressive gains in wealth and population, Europe’s economy began to slow around 1300. Several factors accounted for the decline. One of the most important, though perhaps the least dramatic to relate, was a shift in climate. The remarkably fair weather of the twelfth and thirteenth centuries took a decided turn for the worse in the fourteenth Chronicler’s comments, tree-ring examination, and pollen analysis all indicate that over the course of the fourteenth century Europe’s average annual temperature declined approximately two degrees Celsius— which may sound like very little at first, but if one considers current projections about the possible effects of global warming, in which the average annual temperature shift is only one degree Celsius, a rather different impression emerges. As the temperature dropped, shortening the summer growing season and affecting the resilience of certain vegetable species, the wind and rain increased. This meant that crop yields declined precipitously and the agricultural economy began to contract. As food supplies dwindled, costs rose accordingly and cut into the amount of capital that people had available for other purchases or investments. This in turn added to the gradual constriction of the commercial economy.

1. The phrase “accounted for” in the passage is closest in meaning to

A. predicted

B. explained

C. typified

D. worsened

2. Why does the author mention “current projection about the possible effects of global warming” in the passage?

A. To argue that global warming was a faction in the climate shift of the fourteenth century in Europe

B. To suggest that the current climate change is greater than the climate change in the fourteenth century in Europe

C. To show the direct connection between temperature changes in the fourteenth century and changes that are currently occurring in Europe

D. To emphasize the impact of the temperature changes that occurred during

the fourteenth century in Europe.

3. In paragraph 1, all of the following are mentioned as factors that contributed to the decline of the agricultural economy in the fourteenth century EXCEPT

A. an increase in rain and wind

B. a shortened growing season

C. the investment of capital in areas other than agriculture

D. a significant drop in temperature

Paragraph 2

Just as significant were changes in the geopolitics of the Mediterranean world. The decline of the Byzantine Empire, which had dominated the eastern Mediterranean, meant the interruption of trade routes to central and eastern Asia. The rise of new political powers signaled a new era in Mediterranean connections, one in which religious loyalty and ethnic fidelity mattered more

than commercial ties. Consequently the movement of goods and services between east and west began to slow. European interest in circumnavigating Africa and exploring westward into the Atlantic Ocean, in fact, originated in the desire into the trade with eastern Asia that had long sustained Europe’s economic growth.

4. In paragraph 2, the author implies that Byzantine Empire

A. allowed international trade from which Europe benefited

B. became a dominated force during the fourteenth century

C. centered its rule on religion and ethnic ties

D. interrupted trade routes to Asia that had already been established

5. According to paragraph 2, European interest in exploring the coast of Africa and the Atlantic Ocean grew out of a wish to

A. build a roadblock against Asian powers

B. restore valuable trade with eastern Asia

C. create faster trade routes to eastern Asia

D. connect trade between the eastern Mediterranean and the Atlantic Ocean

Paragraph 3

A more immediate cause of the sputtering economy was an observable absence; since the eleventh century there had been few significant changes in the technology of agriculture. Developments like the wheeled plow, the rotation of crops, and the use of natural fertilizer that had made possible the agricultural revolution of the past two hundred years had had no follow-up. Farming was still conducted in 1300 roughly the same way it had been done in 1100, but with a considerably larger population to feed, there was little surplus left to generate fresh capital. As a consequence, food production fell perilously close to subsistence level. 【Although the failure of agriculture to keep up with the growing population did not become a crisis until the fourteenth century, clear signs of the problem had already emerged by the middle of the thirteenth century, when occasionally low yields due to bad weather or social disruption revealed how perilous the balance between Europe’s population and its food supply had become.】 Apart from territories beset by war, the tentativeness of the food supply became evident first on the farmlands most recently brought under cultivation during the economic depression of the twelfth century. The less established farmers of these lands frequently did not have the means to survive successive poor harvests. Tenant farmers unable to pay their tents thus began to slip into debt, and landlords who depended on rents for their income began to rely increasingly on urban financiers for credit.

6. According to paragraph 3, what was one cause of the economic problems in Europe of the fourteenth century?

A. Farming techniques produced insufficient amounts of food

B. Terntones that farmers had begun to use for agriculture for the first time were disrupted by war

C. The technological improvements in farming made in earlier centuries were abandoned after 1300

D. Farming techniques used capital that was needed for investment in the development of technology

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

【Although the failure of agriculture to keep up with the growing population did not become a crisis until the fourteenth century, clear signs of the problem had already emerged by the middle of the thirteenth century, when occasionally low yields due to bad weather or social disruption revealed how perilous the balance between Europe’s population and its food supply had become.】

A. Maintaining the population of Europe with existing food supplies continued to be a problem after the middle of the thirteenth century

B. The delicate balance between population and food supply in Europe was apparent in years of poor harvest half a century before it became a crisis in the fourteenth century

C. Clear sighs of the emerging crisis in Europe appeared in the thirteenth century in the form of bad weather, social unrest, and insufficient food

D. In the thirteenth century, a problem emerged in Europe when the food sufficient to feed the population only

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

A. significantly

B. increasingly

C. constantly

D. naturally

9. It can be inferred from paragraph 3 that people who farmed on land recently brought under cultivation were at a bigger disadvantage than well-established farmers in fourteenth-century Europe because

A．they land was located in areas that were engaged in war

B．they relied on urban financiers for credit

C．they had no surplus on which to live or money to pay their rent

D．they did not use wheeled plows, rotate their crops, or use natural fertilizer

Paragraph 4

Even whole governments became entangled in the credit crisis, England being the most notable example. The cycle of indebtedness was hardly inevitable, but the string of bank failures and commercial collapses in the first half of the fourteenth century was striking. The famed Bardi and Peruzzi banks of Florence (the two largest financial houses of Europe) collapsed spectacularly in the 1340’s. They were soon followed by the Riccardi bank of Lucca, whose massive loans had kept the English government afloat for years. Many more houses collapsed in turn.

10. The word “striking” in the passage is closest in meaning to

A. understandable

B. necessary

C. limiting

D. noteworthy

11. Why does the author mention in the passage that the Bardi and Peruzzi banks were “the two largest financial houses of Europe”?

A. To indicate the connection between Florence banks and the English government

B. To emphasize the great impact that these bank failures had on the economy

C. To compare the Bardi and Peruzzi banks with the Richard bank

D. To indicate the success that these banks had previously achieved

Paragraph 5

An important demographic trend resulted from and contributed to the economic malaise: large-scale migration of rural populations into the cities. Europe’s overall population growth from 1050 to 1300 had been primarily due to an increase in the number of rural folk. But as economic forces made agrarian life more perilous around 1300, hard-pressed farmers and their families began to migrate to the cities in large number in search of work. Farms, villages, and entire regions were abandoned. Many cities doubled in size, and some even tripled, over the course of just one or two generations. Few were capable of absorbing such large numbers of people.

12. Paragraph 5 suggests that the large-scale migration to cities resulted in which of the following?

A. After two generations in the cities, migrants returned to agricultural life

B. The overall population in Europe declined

C. Farmers worked in cities, and their families worked the land

D. Cities contained large numbers of people who were unemployed

Paragraph 5

An important demographic trend resulted from and contributed to the economic malaise: large-scale migration of rural populations into the cities. Europe’s overall population growth from 1050 to 1300 had been primarily due to an increase in the number of rural folk. [A] But as economic forces made agrarian life more perilous around 1300, hard-pressed farmers and their

families began to migrate to the cities in large number in search of work. [B] Many cities doubled in size, and some even tripled, over the course of just one or two generations. [C] Few were capable of absorbing such large numbers of people. [D]

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

Farms, villages, and entire regions were abandoned.

Where would the sentence best fit?

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

The economic decline in Europe during the fourteenth century resulted from several factors.

Answer choices

A. Climate changes affected agriculture production, which led to food shortages.

B. The loss of trade with central and East Asia negatively impacted economic growth.

C. England was among the nations that suffered a credit crisis.

D. The performance of the commercial economy could not keep pace with the agricultural economy.

E. The lack of innovation in agricultural technology affected food production

F. Migrations from city to rural areas led to an increase in the number of rural fork.

Human Impacts on Biogeography

Biologists, who commonly study the distribution of plant and animal species in different environments—their biogeography—strive to develop interpretations or explanations of the patterns of species distribution, but these may be incorrect if the effects of human beings are not taken into consideration. In some cases, these effects may be accidental; for example, some species of rat were unintentionally transported aboard ships from Europe to the islands of the South Pacific. In other cases, species distributions may have been deliberately modified by human beings. The Polynesians in the South Pacific intentionally moved the kumara (sweet potato) to islands in that region to provide the population with a new food crop.

1.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. (Biologists, who commonly study the distribution of pi ant and animal species in different environments—their biogeography—strive to develop interpretations or explanations of the patterns of species distribution, but these may be incorrect if the effects of human beings are not taken into consideration.)

A. In biogeography it is common to consider and study the effects of plant and animal species as they are distributed within environments where humans live.

B. Biologists who study environments in which pi ants and animals are distributed have arrived at interpretations or explanations for how species succeed, but these may not be correct.

C. To understand plant and animal distribution patterns correctly, biologists must consider the role of hum an beings in the biogeography of species

D. It is common for biologists who try to understand the effects of humans on their environments to be incorrect in their explanations of certain distribution patterns of plants and animals.

2.In paragraph 1，the author makes the point that the relocations of rats and the kumara to new environments differed in

A. whether or not humans planned to transfer these species to a new environment

B. how far these species had to be transported to arrive at the new environment

C. how difficult it was for these species to become established in the new environment

D. whether or not these species succeeded in the new environment

The relocation of species by humans (and more recently the imposition of restrictions on movement by way of national controls and world conventions) has been primarily for economic reasons and for environmental protection. For example, humans introduced Sitka spruce trees into Scotland and England from North America to use them as a timber crop. Similarly the Monterey pine tree was introduced into New Zealand in the nineteenth century from California and has become the most widely used species in the timber production industry in that country. The potato has been carried from its native home in the high Andes of South America, modified and developed into many varieties, and transported around the world because it can be used as a food crop. The plant formerly known as the Chinese gooseberry was relocated from its native China to New Zealand where an industry was established around the renamed kiwifruit.

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

A. commonly

B. previously

C. officially

D. interestingly

4.In paragraph 2，the author mentions Chinese gooseberries and the Monterey pine in order to

A. contrast two plant species transplanted for different reasons

B. demonstrate how two extremely different species adapt to a similar environment in New Zealand

C. offer evidence that newly introduced species can have unintended positive effects on the environment

D. provide examples of species moved for economic purposes

5.The word "desirable" in the passage is closest in meaning to

A. easy to spread

B. quick to establish

C. wanted

D. practical

6. The word "relatively” in the passage is closest in meaning to

A. comparatively

B. surprisingly

C. extremely

D.at times

We have extended the distribution of some species because of certain useful traits that make the species desirable beyond their former known range For example, willows have extensive root systems, can grow relatively quickly, and are now used in several countries worldwide to stabilize river margins as a flood protection measure. The distribution of willows has therefore been influenced considerably by human use in river bank management.

7.According to paragraph 3. why are willows a species that are now found in different countries worldwide?

A. They adapt easily to a variety of environments.

B. They have characteristics that make them useful in preserving river banks during floods.

C. They have a root system that allows them to reproduce easily and live long.

D. They require little care or management from humans.

The effects of introduced species can be many and varied and can include effects on the distribution of other species. For example, the North American gray squirrel was introduced into England and has now largely displaced the native red squirrel. The accidental introduction of organisms to new areas may have major pest implications. The South African bronze butterfly, the larva (immature insect forms) of which feed on buds and other parts of geraniums and similar flowers, was accidentally introduced into the Balearic Islands via imported geraniums. In its native South Africa, the distribution and abundance of the butterfly are affected in part by a native wasp that parasitizes (feeds on) the larvae. In the absence of the parasite wasp on the Balearic Islands off the coast of Spain, the butterfly has now spread to mainland Spain where its rapid spread has been accentuated by trade in garden plants and modem transport. The species has become a major pest due to the lack of a natural predator and is now causing great problems for the horticultural industry in Spain.

8.The word "accentuated" in the passage is closest in meaning to

A.controlled

B.intensified

C.explained

D.restricted

9.What can be inferred from paragraph 4 about geraniums in South Africa as compared to geraniums in Spain and the Balearic Islands?

A. The structural parts and buds of geraniums in South Africa differ from those of geraniums in Spain and the Balearic Islands.

B. Compared to the geraniums in Spain, the ones in South Africa are less likely to have bronze butterfly larvae as a pest

C. Geraniums are less important to the horticulture industry in South Africa than they are to the horticultural industries tries of Spain and the Balearic Islands.

D. Geraniums in South Africa ire traded more than the geraniums in Spain and the Balearic Islands are.

10. According to paragraph 4, why did the South African bronze butterfly become a major pest in Spain?

A. Spain has a greater number of flowers for the butterflies to feed on

B. The butterfly's larvae reach maturity more quickly in Spain than they do elsewhere.

C. There are no natural predators of bronze butterfly larvae in Spain

D. The species of geranium that is found in Spain is a more delicate garden plant and easier for pests to consume

11. Paragraph 4 supports which of the following statement about the South African bronze butterfly?

A. It was deliberately introduced into two new environments at the same time

B. Its spread on mainland Spain had a significant economic impact

C. It changed its parasitizing behavior when it adapted to new environments

D. Its presence on mainland Spain and the Balearic Islands caused other insect populations to increase

Human-driven changes in the distribution of some species may result in hybridization (interbreeding) with other species and so have a genetic effect. For example, the North American cord grass was accidentally introduced to the south coast of England in the early nineteenth century. It hybridized with the European cord grass and resulted in the production of a new species, which in this case is also a major pest plant of estuaries in England where it became dominant and extensive.

Information about a species distribution (prior to human modification) maybe applied in pest control programs for the introduced species. Studies of the species in its native habitat may yield information about the factors that limit or influence its distribution and population dynamics. That information may then be applied in the development of strategies to contain and control the spread of pest species. For example, information about the role of the parasitic wasp in the ecology of the bronze butterfly may be utilized in the process of finding control strategies for that species on mainland Spain.

12.Paragraph 6 returns to a discussion of the bronze buttery in order to

A. demonstrate that information about species in their native habitat can be applied to controlling their spread in new habitats

B. emphasize the negative effects of parastic wasps on butterflies in general

C. further support the claim that the bronze butterfly was accidentally introduced to mainland Spain

D. conclude by recommending the development of careful pest control strategies so that the ecology is not damaged

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

Its presence there helps control the bronze butterfly population.

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

The effects of introduced species can be many and varied and can include effects on the distribution of other species. For example, the North American gray squirrel was introduced into England and has now largely displaced the native red squirrel. The accidental introduction of organisms to new areas may have major pest implications. ■The South African bronze butterfly, the larva (immature insect forms) of which feed on buds and other parts of geraniums and similar flowers, was accidentally introduced into the Balearic Islands via imported geraniums. ■In its native South Africa, the distribution and abundance of the butterfly are affected in part by a native wasp that parasitizes (feeds on) the larvae.■ In the absence of the parasite wasp on the Balearic Islands off the coast of Spain, the butterfly has now spread to mainland Spain where its rapid spread has been accentuated by trade in garden plants and modem transport. ■The species has become a major pest due to the lack of a natural predator and is now causing great problems for the horticultural industry in Spain.

14.A variety of factors, including human activity, can affect the distribution of species:

Answer Choices

1.Research has shown that the biogeography of species can change even without human interference as can be seen In the wide distribution of willows along a wide range of river banks.

2.Introducing a species to a new environment can have unintended consequences such as those that occurred when a butterfly was relocated to an environment that lacked its natural predator.

3.The success of relocating two species together depends on how they help each other survive in a new environment as demonstrated by the South African bronze butterfly and geraniums.

4.The study of the relocations of certain species to new habitats has been difficult because it is not always clear if the relocations were natural or caused by humans.

5.Humans have relocated species for a variety of reasons, including obtaining new food sources, creating new industries, and taking advantage of the characteristics of certain species

6.Understanding the distribution of a species in its native habitat can be useful in controlling Its spread as a pest in Its new habitat.

Economic Decline in Europe during the 14th Century

答案：B D C A B; A B A C D; B D B (ABE)

Human Impacts on Biogeography

Human Impacts on Biogeography答案：C A B D C; A B B B C; B A C 256

第3套

**Consolidated Industry in the United States**

Laws of incorporation passed in the United States in the 1830s and 1840s made it easier for business organizations to raise money by selling stock to members of the public. The ability to sell stock to a broader public made it possible for entrepreneurs to gather vast sums of capital and undertake large projects. This led to the emergence of modern corporations as a major force in the United States after 1865. These large, national business enterprises needed more systematic administrative structures. As a result, corporate leaders introduced a set of managerial techniques that relied on systematic division of responsibilities, a carefully designed hierarchy of control, careful cost-accounting procedures, and perhaps above all a new breed of business executive: the middle manager, who formed a layer of command between workers and owners. Efficient administrative capabilities helped make possible another major feature of the modern corporation: consolidation (combining many things into one).

1. 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.
2. Corporate leaders expanded the role of middle managers, who now had the responsibility to introduce systematic techniques of cost-accounting and a carefully designed hierarchy of control
3. Corporate leaders replaced the former hierarchy of control with a new system, the main advantage of which was that it divided responsibilities among middle managers.
4. Corporate leaders were transformed into middle managers as a result of innovations such as the systematic division of responsibilities and the introduction of careful cost-accounting procedures.
5. Corporate leaders introduced a variety of innovative managerial techniques, the most important probably being the middle manager, a new executive layer below owners.

Businessmen created large, consolidated organizations primarily through two methods. One was horizontal integration—the combining of multiple firms engaged in the same enterprise into a single corporation. The consolidation of many different railroad lines into one company was an example. Another method, which became popular in the 1890s, was vertical integration—the taking over of all the different businesses on which a company relied for its primary function. Thus, Carnegie steel controlled mines and railroads as well as steel mills.

1. Why does the author provide the information that” Carnegie Steel controlled mines and railroads as well as steel mills”?
2. To challenge the idea that railroads generally integrated horizontally
3. To help explain vertical integration by providing an example of a company using it
4. To help explain how a company’s primary function influenced the method of integration it used
5. To show that vertical integration was a much more effective technique for consolidation than horizontal integration was

The most celebrated corporate empire of the late nineteenth century was John D. Rockefeller’s Standard Oil. Shortly after 1865, Rockefeller launched a refining company in Cleveland, Ohio, and immediately began trying to eliminate his competition. Allying himself with other wealthy capitalists, he proceeded methodically to buy out competing refineries. In 1870, he formed the Standard Oil Company of Ohio, which in a few years had acquired twenty of the twenty-five refineries in Cleveland, as well as plants in Pittsburgh, Philadelphia, New York, and Baltimore. He built his own barrel factories, warehouses, and pipelines. Standard Oil owned its own railroad freight cars and developed its own marketing organization. By the 1880s, Rockefeller had established such dominance within the petroleum industry that to much of the nation he served as a leading symbol of monopoly.

1. The word “launched” in the passage is closest in meaning to
2. bought
3. expanded
4. inherited
5. Started
6. The word “methodically” in the passage is closest in meaning to
7. aggressively
8. rapidly
9. secretly
10. Systematically
11. According to paragraph 3, which of the following was true of John D. Rockefeller?
12. He acquired most of the oil refineries in Cleveland, Ohio.
13. He bought some companies solely because they made supplies for competing oil refineries.
14. He limited sales of Standard Oil petroleum to companies associated with competing refineries.
15. He built many more new oil refineries than he bought.
16. According to paragraph 3, the Standard Oil Company of Ohio owned all of the following EXCEPT:
17. a marketing organization
18. railroad freight cars
19. railroad lines
20. barrel factories

Rockefeller and other industrialists saw consolidation as a way to cope with what they believed was the greatest curse of the modern economy. “cutthroat competition.” Most businessmen claimed to believe in free enterprise and a competitive marketplace, but in fact they feared that substantial competition could result in instability and ruin for all. As the movement toward consolidation accelerated, new vehicles emerged to facilitate it. The railroads began with so-called pool arrangements—informal agreements among various companies to stabilize rates and divide markets. But if even a few firms in an industry were unwilling to cooperate (as was almost always the case), the pool arrangements collapsed. The failure of the pools led to new techniques of consolidation. At first, the most successful such technique was the creation of the “trust”—pioneered by Standard Oil in the early 1880s and perfected by the banker J. P. Morgan. Under a trust agreement, stockholders in individual corporations transferred their stocks to a small group of trustees in exchange for shares in the trust itself. Owners of trust certificates often had no direct control over the decisions of the trustees, they simply received a share of the profits of the combination. The trustees themselves, on the other hand, might literally own only a few companies but could exercise effective control over many.

1. The word “accelerated” in the passage is closest in meaning to
2. became common
3. gained acceptance
4. speeded up
5. Began
6. The word “perfected” in the passage is closest in meaning to
7. improved
8. adopted
9. made popular
10. made profitable
11. According to paragraph 4, many industrialists in the 1880s worried that
12. pool arrangements would divide markets
13. new vehicles for pool arrangements would fail
14. too much competition would destroy the modern economy
15. trusts would be unable to exert adequate control over companies
16. According to paragraph 4, which of the following was a problem with pool arrangements?
17. They were effective only with railroads.
18. They could succeed only if all the firms in an industry cooperated.
19. They were effective only in situations where rates had already been stabilized.
20. They could be implemented only in industries with a large number of firms
21. It can be inferred from paragraph 4 that trusts were more successful than pool arrangements at
22. exercising effective control over the participating companies
23. excluding less profitable companies
24. allowing small stockholders to participate in decision making
25. limiting the amount of money paid to the owners of individual corporations

In 1889, the state of New Jersey helped produce a third form of consolidation by changing its laws of incorporation to permit companies to buy up the stock of other companies. Other states soon followed. These changes made the trust unnecessary and permitted actual corporate mergers. Rockefeller, for example, quickly relocated Standard Oil to New Jersey and created there what became known as a holding company—a central corporate body that would buy up the stock of various members of the Standard Oil trust and establish direct, formal ownership of the corporations in the trust.

1. According to paragraph 5, why did Rockefeller move Standard Oil to New Jersey?
2. To be in a better position to pressure the state to change its laws of incorporation
3. To increase the number of corporations under his control in the Standard Oil trust
4. To raise the needed amounts of money for the establishment of his new holding company
5. To acquire direct, legal ownership of the corporations in the Standard Oil trust
6. Look at the four squares [◼ ] that indicate where the following sentence could be added to the passage.

**In addition to expanding horizontally, Rockefeller’s company expanded vertically as well.**

Where would the sentence best fit?

The most celebrated corporate empire of the late nineteenth century was John D. Rockefeller’s Standard Oil. Shortly after 1865, Rockefeller launched a refining company in Cleveland, Ohio, and immediately began trying to eliminate his competition. Allying himself with other wealthy capitalists, he proceeded methodically to buy out competing refineries. ◼ In 1870, he formed the Standard Oil Company of Ohio, which in a few years had acquired twenty of the twenty-five refineries in Cleveland, as well as plants in Pittsburgh, Philadelphia, New York, and Baltimore. ◼ He built his own barrel factories, warehouses, and pipelines. ◼ Standard Oil owned its own railroad freight cars and developed its own marketing organization. ◼ By the 1880s, Rockefeller had established such dominance within the petroleum industry that to much of the nation he served as a leading symbol of monopoly.

1. **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 the express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

**Businesses’ increased ability to raise capital by selling stock led to the emergence of large corporations as a major force in the United States after 1865.**

1. Large businesses developed more efficient administrative structures, which allowed them to consolidate through horizontal integration, vertical integration, or both.
2. Even though consolidation initially developed in manufacturing, it was J. P. Morgan in the banking industry who came up with the most successful consolidation technique.
3. The most famous corporation was Rockefeller’s Standard Oil, which acquired many competing businesses and controlled its supply sources, eventually establishing itself as a holding company.
4. In order to limit competition as effectively as they could, industrialists created pool arrangements and then later trusts and holding companies.
5. The rise of corporations as the dominant force in the American economy forced certain states to pass new laws that resulted in direct state control over consolidation.
6. Corporate consolidation was an extremely complex process, and required enormous amounts of capital for carrying out various integration procedures.

**The Brain Size of Bottlenose Dolphins**

Large brain size does not always mean that an animal is highly intelligent. Brain size is necessarily associated with overall body size, with large animals having large brains and small animals having small brains. However, it is still necessary for there to be some minimum amount of circuitry (brain cells and processes) present for a species to have the potential to be highly intelligent, whatever way the term intelligence is defined. A measure of relative brain size that has been applied to a variety of species is the encephalization quotient (EQ), the radio of brain mass to body size. The EQ is calculated by measuring the relative size of different body parts over a wide range of species. An EQ of 1.0 means that the brain is exactly the size one would expect for an animal of a particular size, an EQ higher than 1.0 means that a species is relatively brainy.

1. According to paragraph 1, what does it mean for an animal to have an EQ higher than 1.0?
2. Its brain has more mass than similarly sized brains of other animals.
3. Its brain is larger than expected for the animal’s overall body size.
4. Its brain is larger than that of most other animals.
5. Its brain is larger than that of any animal with an EQ of less than 1.0.

Bottlenose dolphins have a very high EQ, about 2.8 or higher. Thus, dolphin brains are not simply absolutely large: they are relatively very large as well. Humans, by the way, have extremely high EQ values, estimated to be in the neighborhood 7.5, making our species the brainiest in existence. Nonetheless, it is worth noting that EQ levels in several species of odontocetes (toothed whales, dolphins, and porpoises) are significantly higher than is the case for any primate except our own species. The EQ value for a species relates to a number of general measures of cognitive processing ability in different mammals, as well as to a number of life history patterns in mammals. EQ may be correlated with life span, home-range size, and social systems that characterize a particular species. Oddly enough, the relationships found between EQ and other factors in primates and some other mammals do not appear to apply as well to cetaceans (whales, dolphins, and porpoises), including the bottlenose dolphin.

1. Paragraph 2 supports which of the following statements about the EQ levels of various animals?
2. Bottlenose dolphins have higher EQ levels than other odoncetes do
3. The EQ levels of bottlenose dolphins are more closely associated with their life history patterns than the EQ levels of primates are.
4. Bottlenose dolphins belong to a group of animals whose EQ levels are higher than those of any primate except humans.
5. The brains of bottlenose dolphins are larger for these dolphins’ size than brains of humans are for humans’ size.
6. Which of the following is NOT identified in paragraph 2 as a factor that may be correlated with EQ?
7. The species’ social organization
8. The species’ ecological role in the environment
9. The extent of the range that species members need for daily activities
10. The number of years that species members live on average
11. Paragraph 2 answers which of the following questions about EQ?
12. Which life history patterns correlate best with EQ values in whales, dolphins, and porpoises?
13. Is the EQ of bottlenose dolphins significantly higher than that of other dolphins?
14. What are the differences in EQ levels among different species of odontocetes?
15. Do the same factors that correlate with EQ in primates correlate well with EQ in bottlenose dolphins?

The reasons for the larger-than-normal brain of the bottlenose dolphin (and indeed of small odontocetes in general) are not clearly understood. To navigate and detect prey, dolphins emit calls into the environment and then listen to the echoes of the calls that return from nearby objects, a process known as echolocation. Among the more plausible suggestions for large brain size are that the complexity of processing high-frequency echolocation information requires the development of large centers in the cerebral hemispheres, and/or that the degree of sociality exhibited by many species, in which individual animals recognize and have particular long- and short-term relationships with a number of other individuals, has favored the evolutionary development of a large, complex brain. Some authors develop a strong case that extreme development of the auditory (hearing) system may be the primary reason for the dolphin’s large brain. This opinion is supported by observations that the auditory regions of the dolphin brain are 7 to 250 times larger than the equivalent regions of the human brain and by observations of very fasts auditory brain stem responses to sounds. It should be noted, however, that sperm whales are very social and good echolocators (that is, good at locating objects by emitting sounds and detecting the reflections given back), yet their EQ values are low—only about 0.3. Even some small, less social odontocetes such as Indus river dolphins echolocate well but do not possess the exceptionally large brains that bottlenose dolphins do.

1. The word “detect” in the passage is closest in meaning to
2. follow
3. capture
4. sense
5. Surprise
6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.
7. It is plausible that the development of high-frequency echolocation, large centers in the cerebral hemispheres, and/or a high degree of sociality may have contributed to the development of large brains.
8. For an animal to recognize and have long- and short-term relationships with a number of other individuals, the animals must develop large centers in the cerebral hemispheres.
9. Processing high-frequency echolocation information may have required a large, complex brain that already had the capacity to develop and recognize long- and short-term social relationships with multiple other individuals.
10. The demands of processing high frequency echolocation information and/or a high degree of sociality may have favored the evolutionary development of a large, complex brain.
11. According to paragraph 3, what evidence suggests that extreme development of the auditory system may be the primary reason for the dolphin’s large brain?
12. Other odontocetes with highly developed auditory systems also have large brains
13. Social animals, such as dolphins, require highly developed auditory systems, which tend to be associated with large brains
14. The echolocation system used by dolphins is possible only with a highly developed auditory system and a correspondingly large brain
15. The auditory regions of dolphins’ brains are much larger than those of human brains
16. Why does the author include the information that “some small, less social odontocetes such as Indus river dolphins echolocate well but do not possess the exceptionally large brains that bottlenose dolphins do”?
17. To argue that in odontocetes, sociality determines whether an animal has a large brain
18. To argue that echolocation does not necessarily involve exceptionally fast auditory brain stem responses to sounds
19. To help explain why effective echolocation does not necessarily require extreme development of the auditory system
20. To provide evidence that weakens the theory that the large brains of bottlenose dolphins are explained by their need to echolocate.

Noted biologist Peter Tyack has studies dolphin brains and argues persuasively that large brains evolved in dolphins to permit complex social functions. As is the case with certain primates, bottlenose dolphins and certain other large-brained odontocetes have developed societies in which there exists a balance between cooperation and competition among particular individuals. The social politics of chimpanzees and dolphins show some remarkable similarities, especially in terms of the importance of social relations extending far beyond the mother-offspring relationship to include individuals of both sexes across the age range. The development of such complex societies may have favored the evolution of large brain size.

1. The word “persuasively” in the passage is closest in meaning to
2. consistently
3. convincingly
4. repeatedly
5. Intelligently
6. According to paragraph 4, what is true about bottlenose dolphin societies?
7. There is far more cooperation than competition among individuals
8. Long-term social relationships tend to exist primarily between individuals of the same sex and similar ages.
9. They are similar to chimpanzee societies in terms of the types of social relationships that exist.
10. They are far more complex than the societies of any other species of odontocetes

The reason that dolphins have a large brain continues to be somewhat elusive but there must be a reason, since maintenance of brain tissue is metabolically expensive. The adult human brain, for example, may only represent 2 percent of the body weight, but it can account for nearly 20 percent of the metabolic rate (the energy used)

1. The word “elusive” in the passage is closest in meaning to
2. hard to prove
3. hard to identify
4. misunderstood
5. Controversial
6. The phrase “maintenance of” in the passage is closest in meaning to
7. developing
8. supporting
9. connecting
10. Stimulating
11. Look at the four squares [◼ ] that indicate where the following sentence could be added to the passage.

**This requirement suggests that having a brain that is large relative to an animal’s size might be a clue to greater intelligence.**

Where would the sentence best fit?

Large brain size does not always mean that an animal is highly intelligent. Brain size is necessarily associated with overall body size, with large animals having large brains and small animals having small brains. ◼ However, it is still necessary for there to be some minimum amount of circuitry (brain cells and processes) present for a species to have the potential to be highly intelligent, whatever way the term intelligence is defined. ◼ A measure of relative brain size that has been applied to a variety of species is the encephalization quotient (EQ), the radio of brain mass to body size. ◼ The EQ is calculated by measuring the relative size of different body parts over a wide range of species. ◼ An EQ of 1.0 means that the brain is exactly the size one would expect for an animal of a particular size, an EQ higher than 1.0 means that a species is relatively brainy.

1. **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 the express ideas that are not presented in the passage or are minor ideas in the passage. **This question is worth 2 points.**

**Large brain size does not necessarily mean that an animal is especially intelligent.**

1. Bottlenose dolphins have a high EQ, a measure of the ratio of brain mass to body mass that correlates with various cognitive abilities and possibly with life-history patterns in animals.
2. The need to process high-frequency sounds for echolocation has been offered as an explanation for bottlenose dolphins’ unusually large brains, but not all good echolocators have high EQs.
3. The brain size of bottlenose dolphins is strongly correlated with the smount of cooperation and competition in relationships outside the mother-offspring relationship.
4. Scientists are now using findings from their studies of bottlenose dolphins to determine the connection between the presence of a large brain and the potential for intelligence in other species.
5. Bottlenose dolphins, like certain other large-brained animals, have complex social relationships, so their large, metabolically expensive brains may have evolved partly to permit complex social functioning.
6. Biologists disagree about whether the larger-than-usual brain of the bottlenose dolphin makes it more intelligent or more metabolically efficient than other mammals with less brain mass.

**Domestication**

About 10,000 years ago, after nearly 4 million years of human evolution and over 100,000 years of successful foraging for food, human beings, although isolated, nearly simultaneously developed a subsistence strategy that involved domesticated plants and animals. Why? Some scholars seek a single, universal explanation that would be valid for all cases of domestication. Thus, it has been argued that domestication is the outcome of population pressure, as the increasing hunting-and-gathering human population overwhelmed the existing food resources. Others point to climate change or famine, as the post-glacial climate got drier. Increasing archaeological research has made it clear, however, that the evidence in favor of any single-cause, universally applicable explanation is not strong.

1. The word “isolated” in the passage is closest in meaning to
2. highly productive
3. separated from one another
4. cooperative with each other
5. self-sufficient
6. The word “overwhelmed” in the passage is closest in meaning to
7. was too large for
8. consumed
9. added to
10. Replaced
11. According to paragraph 1, all of the following have been proposed as the primary cause of the development of subsistence strategies that involved domestication EXCEPT:
12. growing population pressure on existing food sources
13. the drying of the climate
14. the movement of human populations to new parts of the world
15. Famine

Some scholars have proposed universally applicable explanations that take several different phenomena into account. One such explanation, called the broad-spectrum foraging argument (the argument that humans employed a subsistence strategy based on obtaining a wide range of plants and animals), is based on a reconstruction of the environmental situation that followed the retreat of the most recent glaciers. The very large animals of the Ice Age began to die out and were replaced by increased numbers of smaller animals. As sea levels rose to cover the continental shelves, fish and shellfish became more plentiful in the warmer, shallower waters. The effects on plants were equally dramatic, as forests and woodlands expanded into new areas. Consequently, scholars argue, people had to change their diets from big-game hunting to broad-spectrum foraging for plants and animals by hunting, fishing, and gathering. This broadening of the economy is said to have led to a more secure subsistence base, the emergence of sedentary communities, and a growth in population. In turn, population growth pressured the resource base of the area, and people were forced to eat so-called third-choice, foods, particularly wild grain, which was difficult to harvest and process but which responded to human efforts to increase yields.

1. 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.
2. Human efforts to increase yields of wild grains relieved the pressure population growth put on the resource base of the area.
3. The resource base of the area was pressured by population growth because third-choice foods were difficult to harvest and process.
4. Although wild grains responded to human efforts to increase yields, they were third-choice foods because they were difficult to harvest and process.
5. Population growth put pressure on available food resources, forcing people to eat foods that were less preferred but that responded to human efforts to increase yields.
6. According to paragraph 2, the broad-spectrum foraging argument holds that humans shifted from big-game hunting to a hunter-gatherer lifestyle primarily because
7. they had begun developing more sedentary communities
8. populations required a broader range of food sources
9. it was easier and more effective to hunt smaller animals
10. the very large Ice Age animals had begun to die out

Although the broad-spectrum foraging argument seems to describe plant domestication in the New World, the most recent evidence from ancient southwestern Asia does not support it. There is also evidence for the development of broad-spectrum foraging in Europe, but domestication did not follow. Rather, domesticated crops were brought into Europe by people from southwestern Asia—where the broad-spectrum revolution had not occurred.

1. According to paragraph 3, there is evidence that broad-spectrum foraging
2. was introduced into Europe by people coming from southwestern Asia
3. never developed in ancient southwestern Asia
4. became well established in Europe only shortly before domestication developed there
5. developed independently in Europe and in southwestern Asia
6. The main purpose of paragraph 3 in the passage’s discussion of domestication is to
7. illustrate why the broad-spectrum argument cannot be applied universally as an explanation of domestication
8. support the importance of broad-spectrum foraging in contributing to the development of domestication in the New World
9. call into question the idea that the more to broad-spectrum foraging ever led to the development of domestication
10. help explain why domestication and broad-spectrum foraging developed simultaneously

A very different argument comes from Barbara Bender, who argues that before farming began, there was competition between local groups to achieve dominance over each other through feasting and the expenditure of resources on ritual and exchange, engaging in a kind of prehistoric arms race. To meet increasing demands for food and other resources, land use was intensified, and the development of food production followed.

1. According to the Barbara Bender, what caused prehistoric people to experience “increasing demands for food and other resources”?
2. The manner in which they used land
3. Their failure to have developed farming
4. Competition among groups to control one another
5. Poor food-production techniques, which led to low yields
6. The word “relatively” in the passage is closest in meaning to
7. comparatively
8. consistently
9. completely
10. Clearly

This argument clearly emphasizes social factors, rather than environmental or technical factors, and takes a localized, regional approach. It is supported by ethnography (direct and systematic observations of a human culture) concerning competitive exchange activities, such as the potlatch (traditional celebrations in which groups gather and give gifts) of the indigenous inhabitants of the northwest coast of North America. These people were foragers in a rich environment that enabled them to settle in relatively permanent villages without farming or herding. Competition among neighboring groups led to ever-more elaborate forms of competitive exchange, with increasingly large amounts of food and other goods being given away at each subsequent potlatch. As suggestive as Bender’s argument is, however, it is difficult to find evidence for competitive feasting in archaeological remains.

1. According to paragraph 5, the potlatch activities support which of the following ideas?
2. Foragers were able to live in permanent villages without farming.
3. Social factors such as the competitive exchange of food may have led to domestication.
4. Competition among neighboring groups made a foraging way of life preferable to domestication.
5. Increasingly large amounts of food were easily available for competitive exchange.
6. The word “particular” in the passage is closest in meaning to
7. specific
8. related
9. important
10. Limited

Recently, archaeologists have avoided grand theories claiming that a single, universal process was responsible for domestication wherever it occurred. Many prefer to take a regional approach, searching for causes particular to one area that may or may not apply to other areas. Currently, the most powerful explanations seem to be multiple-strand theories that consider the combined local effects of climate, environment, population, technology, social organization, and diet on the emergence of domestication.

1. Paragraph 6 supports which of the following ideas about recent theories of the development of domestication?
2. They are based on the assumption that the causes of domestication are easier to identify in some areas than in others.
3. They focus on identifying the single process that was primarily responsible for domestication in any particular region.
4. They assume that the causes of domestication varied according to different regions.
5. They tend to be poorly supported by archaeological evidence
6. Look at the four squares [◼ ] that indicate where the following sentence could be added to the passage.

**Scholars have developed a number of hypotheses to explain the historical origins of agriculture.**

Where would the sentence best fit?

About 10,000 years ago, after nearly 4 million years of human evolution and over 100,000 years of successful foraging for food, human beings, although isolated, nearly simultaneously developed a subsistence strategy that involved domesticated plants and animals. Why? ◼ Some scholars seek a single, universal explanation that would be valid for all cases of domestication. ◼ Thus, it has been argued that domestication is the outcome of population pressure, as the increasing hunting-and-gathering human population overwhelmed the existing food resources. ◼ Others point to climate change or famine, as the post-glacial climate got drier. ◼ Increasing archaeological research has made it clear, however, that the evidence in favor of any single-cause, universally applicable explanation is not strong.

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

**About 10,000 years ago, humans living in very different parts of the world nearly simultaneously began domesticating plants and animals.**

1. Some theories aim to explain the emergence of domestication everywhere—either by a single cause or by the interaction of several phenomena—but none are well supported by the evidence.
2. One scholar does not attribute domestication to environmental or technical factors, arguing instead that it can be explained by a need for ever increasing amounts of food for competitive feasting.
3. One assumption that all domestication theories have in common is that humans began the process that resulted in domestication only because of pressure from growing population.
4. According to the broad-spectrum foraging argument, domestication was developed by human groups to provide a subsistence base that would permit the development of sedentary communities.
5. Theories that take a regional approach to the development of domestication are able to take social factors into account rather than being limited to archaeological evidence.
6. Currently, the most powerful theories focus on a particular area and try to explain the emergence of domestication there by the combined local effect of climate, environment, population, and other factors.

Consolidated Industry in the United States

Consolidated Industry in the United States答案：D B D D A C C A C B A D B ABC

The Brain Size of Bottlenose Dolphins

The Brain Size of Bottlenose Dolphins答案：1-5. B C B D C; 6-10. D D D B C; 11-14. B B B ABE

Domestication

Domestication答案：1-5. B A C D D; 6-10. B A C A D; 11-14. A C A BDF

第4套

Models of Egg Development

Paragraph1: Several different theories have been put forward to explain how the hard-shelled eggs of land-dwelling reptiles (e.g. lizards) evolved from the soft eggs that amphibians (e.g. frogs and toads) lay in water. The Romer model of egg development is named after the late Alfred Romer, a paleontologist who also became director of the Harvard University Museum of Comparative Zoology. His specialty was early reptiles because, he felt, they were the key to understanding the great reptile diversification seen in the Late Paleozoic and Mesozoic Eras (around 230 million years ago). Romer's hypothesis was that some aquatic amphibians--that is, amphibians living in water--called anthracosaurs began to lay their eggs on land at about the time that they were evolving reptile-like skeletal features. Indeed, some of these early amphibians and earliest reptiles are so similar in their skeletons that the exact transition point from one to the other is still difficult to determine. Eventually, though, the transition was made, but these early reptiles remained aquatic. The advantage for laying eggs on land was primarily to avoid the aquatic larval (pre-adult) stage during which immature amphibians live exclusively in water with its inherent risk of predators and drying of ponds. However, the land has its own set of dangers, not least of which is the drying effect of the atmosphere. To cope with these problems, a series of protective membranes developed around the egg, including a hard shell. Only later did the reptiles completely abandon an aquatic lifestyle.

1..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.

○During the period that early amphibians changed into reptiles, their skeletons were exactly the same.

○It is difficult to identify the time that early amphibians changed to reptiles because their skeletons look so much alike.

○The skeletons of some early amphibians and reptiles are so similar that it is difficult to say which are amphibians and which are reptiles.

○Early amphibians and reptiles had the same kind of skeleton at the same point in time.

2..The word exclusively in the passage is closest in meaning to

○only

○initially

○primarily

○temporarily

3..According to paragraph 1, aquatic amphibians laid their eggs on land in order to

○enable young amphibians to benefit from a dry atmosphere

○ensure the rapid development of a hard shell

○enable young amphibians to evolve features necessary for living on land

○protect young amphibians from the dangers associated with life in the water

Paragraph2: Another hypothesis was proposed by German paleontologist Rolf Kohring, whose specialty is fossil eggs. In Kohring's model, amphibians during the Mississippian epoch (360¨C320 million years ago) spread into nutrient-poor or cooler water. Because of the harsher conditions, eggs were produced with larger yolks, that is, more nutrients for the embryo. █ With larger yolks, the eggs were bigger, and fewer of them could be produced by the female--hundreds rather than thousands. █ To keep the larger egg intact, one or more membranes were developed, including one that surrounded and protected the egg. █ This outer membrane provided a place to safely store calcium ions, which are poisonous. █ Accumulating the calcium in a hard shell then made it possible for the egg to be laid on land (it was pre-adapted to be laid there.)

4..The word Accumulating in the passage is closest in meaning to

○Forcing

○Collecting

○Distributing

○Isolating

5..In paragraph 2, why does the author mention the information about calcium ions

○To explain Koherig's theory that amphibian eggs developed at least two protective outer membranes

○To explain that the calcium in a hard shell is not poisonous when the egg is laid on land

○To explain why, according to Kohring, a hard shell evolved

○To explain why only the outer membrane stored calcium

6..Which of the following can be inferred from paragraph 2 about the relationship between eggs and water temperature

○Eggs needed adaptations to survive in cold water.

○Eggs needed warm water to survive.

○Smaller eggs were produced in cold water.

○Fewer eggs were produced in warm water.

7..According to paragraph 2, all of the following are true of the eggs of amphibians during the Mississippian epoch EXCEPT:

○They had hard shells made from calcium ions.

○They had larger yolks than previously.

○They had protective membranes.

○They were produced in larger quantities than previously.

Paragraph3: One other model we should consider is the anti-predator hypothesis proposed by Gary and Mary Packard to explain the evolution of the hard-shelled egg. Their model was not concerned with the development of membranes surrounding the egg but continues the story after these membranes appeared. The Packards assume that the earliest reptiles laid leathery shelled eggs on very wet ground where they could absorb water during the embryos' growth. But life on the ground is not without hazards, based on studies of modern reptiles with leathery shelled eggs. Predatory insects and microbes can be a major cause of egg mortality. To counter this loss of eggs, some of the early reptiles began secreting a thin calcareous (containing calcium carbonate) layer. This hard layer gave the embryos a better chance of surviving until hatching. And these survivors in turn would probably leave more progeny once a few of them reached reproductive age. In time, a thicker, more resistant shell developed. However, a thicker eggshell meant that less water could be absorbed for the needs of the embryo. To compensate, larger eggs were produced, containing a great deal more albumen (egg white, a water-soluble protein). At this point, the rigid eggshell had reached the bird egg level of complexity.

8..The word counter in the passage is closest in meaning to

○escape

○stop

○combat

○delay

9..According to paragraph 3, early reptiles began to develop a thin calcareous layer around the egg so that

○the embryo could survive attacks from predatory insects and microbes

○the embryo could absorb sufficient water during its growth

○the surviving embryo could reach reproductive age

○the egg could be laid on land

10..Which of the following is mentioned in paragraph 3 as a disadvantage of the hard eggshell

○It increased the hatching period.

○It prevented the development of large-size eggs.

○It made it more difficult for the embryo to obtain water.

○It made it harder for the embryo to survive until hatching.

Paragraph4: Mary Packard presented yet another model with her colleague Roger Seymour. They note that amphibian eggs can never get very large because the gelatin coat surrounding the developing larva is not very good at transmitting oxygen. Because of this restriction, we will never see frog eggs the size of a chicken's. For Packard and Seymour, the major evolutionary breakthrough in reptile eggs was the elimination of the thick gelatin coat and replacing part of it with a fibrous membrane. This change allowed larger eggs to be developed.

11..The word breakthrough in the passage is closest in meaning to

○effect

○development

○requirement

○goal

12..Which of the following can be inferred from paragraph 4 about the fibrous membrane

○It served the same function as the gelatin coat.

○It was larger than the gelatin coat.

○It allowed amphibians to produce eggs as large as those of reptiles.

○It allowed for better transmission of oxygen.

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

And the relatively few that were produced had to be properly protected.

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

Paragraph2: Another hypothesis was proposed by German paleontologist Rolf Kohring, whose specialty is fossil eggs. In Kohring's model, amphibians during the Mississippian epoch (360¨C320 million years ago) spread into nutrient-poor or cooler water. Because of the harsher conditions, eggs were produced with larger yolks, that is, more nutrients for the embryo. █ With larger yolks, the eggs were bigger, and fewer of them could be produced by the female--hundreds rather than thousands. █ To keep the larger egg intact, one or more membranes were developed, including one that surrounded and protected the egg. █ This outer membrane provided a place to safely store calcium ions, which are poisonous. █ Accumulating the calcium in a hard shell then made it possible for the egg to be laid on land (it was pre-adapted to be laid there.)

14.. Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

○Alfred Romer's hypothesis was that early amphibians started evolving reptilian skeletal features long before they started laying eggs on land.

○Alfred Romer theorized that early reptiles developed protective membranes around the egg in response to the dangers to young amphibians in water and threats to the egg on land.

○In Rolf Kohring's view, early reptiles developed protective membranes around the large eggs that were produced in harsh water conditions, making it possible for the egg to be laid on land.

○Gary and Mary Packard claimed that reptiles developed the hard-shelled egg in order to reduce the rate at which eggs were destroyed by predatory insects and microbes.

○Rolf Kohring argued that egg development was poor during the Mississippian epoch due to nutrient-poor waters.

○According to Mary Packard and Roger Seymour, reptiles could not successively develop very large eggs because of the elimination of the gelatin coat.

Population Revolution in Eighteenth-Century Europe

Paragraph 1：In late seventeenth-century Europe, what had been evolution in population followed by stabilization changed to population revolution. █Increasing contacts with the Americas brought more sophisticated knowledge of the advantages of new foods, particularly the potato. █Originally a cool-weather mountain crop in the Americas, potatoes did well in the Pyrenees, Alps, and Scottish Highlands. █They also grew well in the long, damp springtime of the northwest European plain. █Whatever hesitancy peasants may have felt about eating potatoes quickly passed when famine threatened; after all, people who in famines desperately consumed grass, weeds, and the bark of trees hardly would have hesitated to eat a potato. By the later eighteenth and the nineteenth century, American foods had become the principal foodstuffs of many rural folk. Various agricultural publicists promoted adoption of these foods, and peasants found that potatoes could allow subsistence on smaller plots of land. Fried potatoes soon began to be sold on the streets of Paris in the 1680s the original French fries. Governments, eager to promote population growth as a source of military and economic strength, also backed the potato.

1..Paragraph 1 suggests that the European population before the late seventeenth century had been

○growing slowly and then not at all

○changing in distribution but not in the overall number of people

○decreasing at a small but stable rate

○alternating between periods of slow and fast growth

2..The word sophisticated in the passage is closest in meaning to

○quickly obtained

○highly developed

○widely distributed

○easily understood

3..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.

○The constant threat of famine caused peasants to become desperate and eat unusual foods like grass, weeds, and the bark of trees.

○Because famine forces people to eat foods they normally would not want to eat, peasants were willing to eat potatoes.

○Although some people ate foods like potatoes during famine, others preferred to eat easily accessible foods like grass, weeds, and the bark of trees.

○Famine had the greatest impact on peasants, whose regular diet of potatoes expanded to include other vegetation.

4..According to paragraph 1, all of the following contributed to the widespread adoption of the potato in Europe EXCEPT:

○Peasants growing potatoes for their own use could support themselves on smaller plots of land.

○Potatoes grew well in a variety of locations in Europe.

○Potatoes were the preferred food of European military forces.

○Agricultural publicists encouraged the public to eat potatoes.

Paragraph 2：Along with new foods, some landowners began to introduce other innovations. The nutritional base for a population revolution combined regional changes with the use of American foods. Dutch and English farmers drained more swamps and so increased cultivable land. Agricultural reformers further promoted the use of crops such as the turnip that return valuable nitrogen to the soil. Improvements in available tools, such as growing use of the scythe instead of the sickle for harvesting, and better methods of raising livestock also spread. All this took shape from the late seventeenth century onward, building on earlier agricultural changes. At the same time, rates of epidemic disease declined, in part because of more effective government controls over the passage of people and animals along traditional plague routes from the Middle East. It was the change in foods that really counted, however.

5..According to paragraph 2, regional farmers did all of the following to improve food production in Europe EXCEPT:

○They improved the way they raised farm animals.

○They used both the sickle and the scythe to harvest crops.

○They grew special crops that nourished the soil.

○They created more farmland by draining swamps.

Paragraph 3：These developments provided a framework for an unprecedented surge. In virtually every area of Europe, the population increased by 50 to 100 percent in the eighteenth century, with the greatest growth coming after 1750. The Hapsburg Empire grew from 20 million to 27 million people; Spain rose from 5 million to 10 million, and Prussia rose from 3 million to 6 million. Growth would continue throughout the nineteenth century. In Europe as a whole, population rose from 188 million in 1800 to 401 million in 1900. This was an upheaval of truly impressive proportions.

6..The word surge in the passage is closest in meaning to

○event

○benefit

○sudden increase

○important change

7..In paragraph 3, the author mentions the Hapsburg Empire, Spain, and Prussia in order to

○support the claim that the population explosion covered most of the European continent

○give examples of population growth during the nineteenth century

○suggest that the population of Prussia grew more slowly than the populations of other countries

○demonstrate that the fastest population growth took place in Spain

8..The word proportions in the passage is closest in meaning to

○origins

○consequences

○growth

○size

Paragraph 4：The population explosion resulted from a break in the traditional, if approximate, balance between births and deaths in European society. In England between 1700 and 1750, approximately 32.8 people were born annually for every 1,000 inhabitants, and 31.5 people died. Similarly, in Lombardy in the eighteenth century, 39 people were born and 37 people died for every 1,000 inhabitants. Clearly, a major alteration had to occur in either the birth or the mortality rate before the expansion of population could begin. In fact, both rates changed: families began to have more children, and a lower percentage of the population died each year. Lower infant death rates meant more people living to produce children of their own, though falling adult death rates also increased the number of older Europeans.

9..According to paragraph 4, the expansion of Europe's population was made possible by

○a major improvement in the care of older Europeans

○increased variation in the ages at which people gave birth to children

○a change in traditional beliefs about family size

○increased birth rates accompanied by a decline in mortality

10..The word sustain in the passage is closest in meaning to

○support

○stimulate

○explain

○unite

Paragraph 5：While historians continue to debate the precise balance of causes involved in these dramatic changes, basic outlines are clear. Better food and a reduction in the epidemic-disease cycle allowed more children to live to adulthood, which increased the population directly and also provided more parents for the next generation a double impact. Rapidly increasing populations provided a new labor force for manufacturing. In the eighteenth century, this mainly involved hundreds of thousands of people, mostly rural, producing thread, cloth, and other products for market sale. This manufacturing expansion helped sustain the growing population, but it could also encourage a higher birth rate. Some people, able to earn money by their late teens, began to produce children earlier; the rate of illegitimate births went up. Others realized that having an extra child or two might help the family economy by providing additional worker-assistants. While death-rate decline was the most important source of Europe's population explosion, various changes on the birth rate side, though quite short-lived, pushed the population up as well.

11..According to paragraph 5, what effect did the epidemic-disease cycle have on population during the eighteenth century

○Childhood diseases kept population growth rates from rising even higher.

○Periodic epidemics caused population growth rates to rise and fall in cycles.

○The effect varied by area, with urban populations more affected by disease than rural areas.

○Fewer childhood deaths from disease led to an increased number of children in the current and future generations.

12..According to paragraph 5, how did the manufacturing expansion affect population growth

○It caused a small decline, because families working in manufacturing needed fewer children as worker-assistants than did farming families.

○It made teenage workers delay childbearing, which caused a decline in population growth.

○It caused an increase in population by allowing workers to support a family at an earlier age.

○It caused the growth rate to rise in the cities and to decline in rural areas.

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

What were the factors that led to this population revolution

Paragraph 1：In late seventeenth-century Europe, what had been evolution in population followed by stabilization changed to population revolution. █Increasing contacts with the Americas brought more sophisticated knowledge of the advantages of new foods, particularly the potato. █Originally a cool-weather mountain crop in the Americas, potatoes did well in the Pyrenees, Alps, and Scottish Highlands. █They also grew well in the long, damp springtime of the northwest European plain. █Whatever hesitancy peasants may have felt about eating potatoes quickly passed when famine threatened; after all, people who in famines desperately consumed grass, weeds, and the bark of trees hardly would have hesitated to eat a potato. By the later eighteenth and the nineteenth century, American foods had become the principal foodstuffs of many rural folk. Various agricultural publicists promoted adoption of these foods, and peasants found that potatoes could allow subsistence on smaller plots of land. Fried potatoes soon began to be sold on the streets of Paris in the 1680s the original French fries. Governments, eager to promote population growth as a source of military and economic strength, also backed the potato.

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

14.. Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

○Climate conditions in Europe allowed for the introduction of new crops that competed with American foods for popular consumption.

○An important cause of population growth was improved nutrition, due in large part to the addition of the potato and other American foods to the standard European diet.

○Regional landowners developed improved agricultural techniques, and mortality rates declined as governments gained control over traditional plague routes.

○Growth rates varied widely across the continent but were highest in France, Spain, and Britain and lowest in Prussia and the Hapsburg Empire.

○Birth rates went up as more people lived long enough to have their own children, had children earlier, and had larger families.

○Government policies promoting population growth helped to create a large labor force for the manufacturing industry.

Mexican Mural Art(17年4月1日考过)

Paragraph 1：The first major modern art movement in Latin America was Mexican muralism, which featured large-scale murals painted on the wall surfaces of public buildings. One of the most persistent strands in Latin American art in the last 80 years has been an engagement with political and social issues, including the struggle for social justice. This in turn has been accompanied by a desire for authentic forms of self-expression and freedom from cultural dependency. Although these preoccupations have taken many different forms, Mexican muralism was the first, and its influence was the most far-reaching. Muralism flourished in Mexico in the years immediately following the Mexican Revolution (1910¨C1920) as a result of a combination of circumstances: a climate of revolutionary optimism and cultural experimentation that challenged traditional Eurocentrism; a small but strong group of relatively mature artists of energy, ideas, and ability; and a visionary minister of education, Jos¨¦ Vasconcelos. Vasconcelos believed that Mexico was destined to play a central role on the international stage. He understood that ideas could be more quickly assimilated through images than through any other medium, and he had the courage to allocate the funds, and the walls of public buildings, to the artists to do with as they liked.

1..The word persistent in the passage is closest in meaning to

○ important

○ fascinating

○ lasting

○ powerful

2..According to paragraph 1, Mexican muralism is concerned with

○ the attempt to make art a more important subject in the Latin American educational system

○ the combination of European art traditions with authentic Latin American art forms

○ the creation of a just society and an independent form of cultural expression

○ the use of art to raise funds for the construction of new public buildings

3..The author mentions the Mexican Revolution in the passage in order to

○ explain how the Mexican government used muralism to challenge European political beliefs

○ emphasize an important reason that Mexican muralism thrived

○ give an example of one of the most popular subjects of muralism

○ emphasize the success of Mexican artists who participated in political conflicts

4..It can be inferred from paragraph 1 that the muralists got most of their financial support from

○ opponents of traditional European art

○ wealthy art lovers

○ other muralists from around the world

○ the Mexican government

Paragraph 2：The muralists shared a belief in the power of art to transform society for the better; to challenge social, political, economic, and cultural stereotypes; and to enrich the intellectual life of their country. During the 1920s and 1930s, they covered miles of wall with paintings representing aspects of Mexico's past and present and the future to which all aspired. Although Mexican muralism is representational and often narrative in form, it should be recognized as a modern movement. It was modernizing in intent, in that it challenged the old order culturally, socially, and politically. By definition, it was a public, accessible form of art not a commodity that could be bought and sold by the wealthy elite. Its purpose was to educate, inform, enlighten, politicize and thus empower the general public, in particular the working classes.

5..According to paragraph 2, in what way can Mexican muralism be regarded as a characteristically modern art movement

○ It was representational and often narrative in form.

○ It was supported by a small but enlightened artistic elite.

○ It questioned traditional ideas.

○ It emphasized the future rather than dwelling on the past.

Paragraph 3：The muralist movement was not a unified force, however. The painters who were its leaders took different directions and did not always see eye to eye. Diego Rivera (1886¨C1957) sought to promote a pluralistic vision of Mexican society by drawing on the rich heritage of the pre-Columbian past (before Christopher Columbus arrived in the Americas in 1492) and contemporary popular culture, and he investigated pre-Columbian styles and techniques in an effort to create an aesthetic language that was new and Mexican. He was deeply influenced by native pictographic traditions of communication in which pictures represent written words and ideas, and he sought to develop a modern equivalent, a visual language that could be read like a book. The art of Jos¨¦ Clemente Orozco (1883¨C1949) is less optimistic: he saw both the pre-Columbian past and the revolutionary present in a more negative light, the former as barbarous, the latter often tarnished by corruption and cruelty. He offers no comforting narratives and his expressive, aggressive technique serves as a metaphor of Mexico's harsh, contradictory reality. David Alfaro Siqueiros (1898¨C 1976) was the most politically active of the three and was an internationalist both ideologically and artistically. In his art he deliberately avoided traditional materials and methods, preferring to use modern industrial paints and spray guns. His works look forward to a fully socialist future where the workers will have won the right to the benefits of the modern industrial era, and his often fragmented, complex imagery does not patronize or make concessions to his audience.

6..The word promote in the passage is closest in meaning to

○ express

○ create

○ emphasize

○ encourage

7..The word contradictory in the passage is closest in meaning to

○ discouraging

○ conflicting

○ unchanging

○ unusual

8..Paragraph 3 makes all of the following points about artist Diego Rivera EXCEPT:

○ He used elements of pre-Columbian art to help make a new, modern art.

○ He tried to develop a visual language that communicated as clearly as native pictographs had.

○ He used his art to express his ideas of what Mexican society should be like.

○ He tried but failed to unify the muralist movement.

9..According to paragraph 3, which of the following was true of Orozco's art

○ It was concerned with Mexican problems of the past and the present.

○ It presented the pre-Columbian past favorably.

○ Its images were intended to be pleasing to viewers.

○ Its technique was more typical of international artists than Mexican artists.

10..According to paragraph 3, which of the following is NOT true of David Alfaro Siqueiros

○ He used modern industrial materials rather than traditional materials in his art.

○ He designed images that were intentionally meant to please his audience.

○ He believed in socialism and viewed the future of workers in the modern industrial era favorably.

○ He took an international approach to both politics and art.

Paragraph 4：█The Mexican muralist movement is undoubtedly one of the most important manifestations of twentieth-century Mexican culture. █Its impact elsewhere in the region, as well as in the United States and Europe, has been enormous. █The work of Rivera, Orozco, and Siqueiros triggered a homegrown muralist movement in the United States in cities like New York City, Detroit, Los Angeles, and San Francisco. █The influence of the Mexicans on the modern Spanish painter Picasso's first mural and almost his only major explicitly propagandist work of art his famous Guernica of 1937 is unmistakable even though the artist himself would have denied it. In Latin America, Mexican-influenced muralism has recurred whenever artists have felt the need to make a clear, public statement in a language that has not been borrowed from outside.

11..The word manifestations in the passage is closest in meaning to

○ expressions

○ modifications

○ contributions

○ components

12..The author mentions Picasso's mural Guernica in order to

○ provide an example of one of the biggest European influences on Mexican muralism

○ indicate that politically motivated murals were as popular in Europe as they were in Mexico

○ explain why the influence of Mexican muralism was especially strong among Spanish artists

○ provide evidence that the Mexican muralists had a significant impact on the international art world

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

However, its influence was not limited to Mexico itself.

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

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ The Mexican Revolution resulted in a new respect for traditional culture, leading the muralists to paint scenes depicting the everyday lives of poor Mexicans.

○ In the 1920s and 1930s, following the Mexican Revolution, a talented group of artists painted many large-scale, politically motivated murals on public buildings.

○ Jos¨¦ Vasconcelos made Mexico an important international player by promoting the art and ideas of the revolutionary muralists.

○ The muralists challenged cultural and economic stereotypes and experimented with both pre-Columbian and industrial themes, styles, and techniques.

○ The leaders of the muralist movementRivera, Orozco, and Siqueirosall believed in the transformative power of art but differed in terms of their artistic methods and political beliefs.

○ Mexican muralism was a traditional representational art focused on Mexico's pre-Colombian society and culture.

答案和解析：

Models of Egg Development

Models of Egg Development答案：B A D B C A D C A C B D B BCD

Population Revolution in Eighteenth-Century Europe

Population Revolution in Eighteenth-Century Europe答案：A B B C B C A D D A D C A BCE

Mexican Mural Art（这篇于17年4月1日已考）

墨西哥壁画主义：C C B D C D B D A B A D B BDE

第5套

Europe in the High Middle Ages

Paragraph 1：

For 500 years after the fall of the Western Roman Empire in 476 A.D., a period known as the early Middle Ages, Europe endured an age of political instability, economic decline, and reduced population. But as the millennium approached, the situation began to improve. Toward the end of the tenth century, an increase in the amount of crop-producing land was accompanied by an increase in population, with the potential for that number to rise even higher. The increase in agricultural production came about as a result of a combination of factors, the most prominent of which were changing methods of field management and improvements in agricultural technology.

Paragraph 2：

For much of the early Middle Ages, peasants continued the Roman practice of dividing their fields in two leaving one fallow, or uncultivated, for a year, and planting their crops in the other half. Fallow land restored its nutrients, but the practice meant that half the land produced nothing every year. In southern Europe with its drier climate this system of two-field crop rotation continued, but in northern Europe, peasants improved on this system by dividing their land into three parts. One they left fallow, another they planted in the spring, and the third they planted with winter crops. This three-field crop rotation, dependent on more rainfall than southern Europe received, meant that two-thirds instead of one-half of a peasant's land was under production in one year.

1..Paragraph 2 suggests that the land-management practices developed in the north could not have been adopted in southern Europe because

○ the southern climate was too dry

○ southern farmers were too strongly tied to traditional Roman farming practices

○ the new practice would have required much additional farmland, which was lacking in the south

○ southern farmers had already developed a new crop-rotation system

Paragraph 3：

Related to the changes in crop rotation were improvements in plows and animal harnessing. More land under cultivation spurred experimentation in the construction of plows. Peasants attached wheels to their plows, which made it easier for oxen to pull them through the heavier, wetter soil of northern Europe, and made it possible for a plow to move more quickly down a row provided it had a speedy animal pulling it.

2..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.

○ Peasants had to attach wheels to their plows to make it possible for their oxen to plow the heavy, wet soil of northern Europe.

○ With speedy oxen pulling the plow, peasants were able to plow the heavy soil of northern Europe.

○ Adding wheels to a plow made plowing the heavy soil of northern Europe much easier and potentially faster.

○ Attaching wheels to a plow made it necessary to use speedier animals.

Paragraph 4：

Oxen are slow and unintelligent compared to horses, but peasants could not use horses to pull plows until they devised a different kind of harnessing than the strap that circled an ox's neck. █ With a harness resting on its shoulders instead of its neck, a horse could be used to plow, and horses could walk more quickly and work longer hours than oxen. █They also required less guidance, since they understood verbal signals to turn or to stop. █ Heavier, wheeled plows pulled by suitably harnessed horses meant that peasants could work more land in a day than ever before. █Whether an increase in population across western Europe, but particularly in the north, stimulated innovations or whether such innovations contributed to a rise in population, the cumulative effect of these changes in agriculture was apparent in the tenth century. Conditions in Europe were ripe for an economic and cultural upswing.

3..According to paragraph 4, what initially kept farmers from using horses to pull their plows

○ Horses moved too quickly for traditional farm work.

○ Farmers did not have access to many horses.

○ Horses were thought to be too weak to pull plows.

○ The traditional harness was unsuitable for horses.

4..According to paragraph 4, farmers found horses to be better than oxen for pulling plows for all of the following reasons EXCEPT:

○ Horses are smarter than oxen.

○ Horses can pull plows faster.

○ Horses are able to plow for longer periods of time.

○ Horses do not need verbal signals to turn and stop.

5..The word cumulative in the passage is closest in meaning to

○ eventual

○ positive

○ combined

○ practical

6..The word apparent in the passage is closest in meaning to

○ welcome

○ noticeable

○ predictable

○ widespread

Paragraph 5：

Even before trade with the eastern Mediterranean increased starting in the twelfth century, trade and towns were on the rise. Travel was still dangerous, but merchants were willing to risk transporting goods over long distances. By the late thirteenth century, a few merchants from Italy had even reached China. Greater surpluses in crops meant people had more to sell at market. More people and goods led to regularly held markets in the most populated location in a region. It would be impossible to say whether trade gave rise to towns or vice versa. What is clear is that each fostered the other in conditions of greater social stability.

7..The word each in the passage refers to which of the following

○ people and goods

○ crop surpluses and markets

○ trade and towns

○ merchants from Italy and merchants from China

8..In paragraph 5, why does the author state that a few Italian merchants had reached China

○ To emphasize how much farther European merchants traveled during this time period than in previous centuries

○ To support the idea that Chinese goods were important for European merchants

○ To show how European merchants influenced Chinese markets

○ To indicate the wide-ranging tastes of European consumers during the thirteenth century

Paragraph 6：

Travel on trade routes increased, and some towns sprang up to provide rest and refreshment to traders. The distance between towns often corresponded to the distance that traders could cover in a day. Merchants kept their eyes open for customers with money to spend. The residences of kings, nobles, and powerful officials became sites of markets for local and long-distance traders. In Champagne, in northeastern France, six large annual markets attracted merchants from all over Europe in the twelfth century. Their different currencies prompted the first development of banking techniques. With the use of coins now the norm, money changers daily posted changing exchange rates so that merchants would know the worth of their coins in relation to the worth of other merchants' coins. By 1300, trade had transformed life for the better throughout western Europe.

9..The phrase corresponded to in the passage is closest in meaning to

○ approached

○ equaled

○ exceeded

○ determined

10..Paragraph 6 suggests that markets developed near the residences of kings, nobles, and powerful officials for which of the following reasons

○ Nobles and officials made it legal for merchants to sell their goods.

○ Merchants could sell their goods in relative safety at these sites.

○ Nobles and officials established their residences along traditional trade routes.

○ Merchants could sell their goods more easily to wealthy nobles and officials.

11..The phrase the norm in the passage is closest in meaning to

○ acceptable

○ desirable

○ common

○ available

12..According to paragraph 6, what led to the development of the first banking techniques

○ Merchants from different European regions needed to compare the value of their currency at large markets.

○ Merchants participating in large markets wanted a place to safely store the money they made from their sales.

○ Organizers of large markets developed methods for determining the value of goods from long-distance traders.

○ Merchants needed to borrow money to buy the goods of other merchants at large markets.

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

A stronger part of the body had to bear the strain of pulling for the horse to become a useful farm animal.

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

Paragraph 4：Oxen are slow and unintelligent compared to horses, but peasants could not use horses to pull plows until they devised a different kind of harnessing than the strap that circled an ox's neck. █ With a harness resting on its shoulders instead of its neck, a horse could be used to plow, and horses could walk more quickly and work longer hours than oxen. █They also required less guidance, since they understood verbal signals to turn or to stop. █ Heavier, wheeled plows pulled by suitably harnessed horses meant that peasants could work more land in a day than ever before. █Whether an increase in population across western Europe, but particularly in the north, stimulated innovations or whether such innovations contributed to a rise in population, the cumulative effect of these changes in agriculture was apparent in the tenth century. Conditions in Europe were ripe for an economic and cultural upswing.

14.. Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

○ Peasants in southern Europe developed a three-field system of crop rotation that was based on agricultural practices used by Roman farmers.

○ By rotating their land, using three fields rather than the traditional two, many northern farmers were able to harvest twice during the year, significantly increasing their annual production.

○ Agricultural innovations led to population growth everywhere in Europe, and the resulting towns were the reason that trade increased.

○ By using wheeled plows and replacing horses with oxen, farmers could plow the soil of Northern Europe more quickly, contributing to economic improvements.

○ As European town markets expanded to become trade centers selling goods from distant locations, the social and economic power of merchants increased.

○ A growing system of trade that included long-distance merchants and large annual markets contributed to innovations in economic practice and the flourishing of town culture.

Gliding and Soaring

Paragraph 1：Gliding is gravity-powered flight where the movement of the glider has a downward tilt. But many birds are capable of ascending without flapping their wings, and this is called soaring.【A】Birds usually soar by finding air that is rising as fast as or faster than the gliding bird's sinking speed.【B】 For example, a turkey vulture might glide with a sinking speed of about 0.8 meters per second. 【C】If the vulture can find a place where the air is rising at 0.8 meters per second, it will be able to maintain a constant altitude. 【D】If it finds air rising faster than that, it will be able to climb.

1..Which of the following plays a role in helping a bird to soar

○ Gravity

○ Wing flapping

○ Gliding

○ Rising air

2..In paragraph 1, why does the author discuss the example of a turkey vulture in flight

○ To explain why birds sink unless they find currents of rising air

○ To provide information about sinking and soaring speeds typical for large birds

○ To illustrate why gliding birds seek out rapidly rising air currents

○ To clarify the relationship between sinking speed and the speed of rising air needed to soar

Paragraph 2：Two common processes produce updrafts, or rising air. When heated air rises, it is called a thermal, and when wind blows up a hill or over a large obstacle, it is called ridge lift or slope lift. Thermals occur when the Sun heats some parts of the ground more than others. For example, a freshly plowed field may heat up faster than an adjacent meadow. The warm ground heats the air above it, and the air starts to rise. As the warm air rises, it is replaced by cool air from the surrounding terrain, and this new air is heated until it rises. Thermals may be continuous chimneys of rising air, or a series of discrete, doughnut-shaped bubbles (ring thermals) formed at intervals by the warmed ground.

3..The word adjacent in the passage is closest in meaning to

○ open

○ nearby

○ densely covered

○ sunny

4..The phrase at intervals in the passage is closest in meaning to

○ at low elevations

○ in areas without vegetation

○ periodically

○ unevenly

5..The word discrete in the passage is closest in meaning to

○ separate

○ rising

○ rotating

○ flexible

6..Paragraph 2 implies that which of the following is a factor that contributes to the formation of thermals

○ In some areas, characteristics of the ground cause it to heat more than surrounding areas.

○ The sun heats the air, causing it to start to rise.

○ Warm air continues to rise until the ground beneath it is cooled by colder air.

○ Uneven heating of the air causes it to rotate as it rises.

Paragraph 3：If they could be made visible, ring thermals would look like giant, rising smoke rings. Some airplane pilots and biologists disagree about the exact form of continuous thermal chimneys. Pilots have traditionally interpreted thermals as large, tall columns of rising air, usually with a cumulus (white, fluffy) cloud marking the top of the column. In contrast, observers of animal flight find only small, localized thermal chimneys, which usually take the form of dust devils, which are small columnar thermals with intense rotation. Colin Pennycuick, a prolific researcher on bird flight, discounts thermal chimneys and recognizes only ring thermals as sources of large-scale, long-lasting updrafts. In any case, thermals can rise 2 or 3 kilometers above the ground. Also, they tend to increase in size and intensity as they rise, sometimes reaching over 1,000 meters in diameter. 【Thermals are usually capped by a cloud, because the upper limit of a thermal is set by the altitude where the temperature is low enough to condense water vapor in the thermal, which cools the air and forms a cloud.】

7..The word prolific in the passage is closest in meaning to

○ skillful

○ experienced

○ highly productive

○ highly respected

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

○ Thermals capped by clouds have upper limits when the temperature gets low enough to condense water vapor.

○ Thermals usually stop rising when they reach a cloud, because thermals are limited in the amount of water vapor they can hold before the vapor condenses.

○ Most thermals have clouds at their upper end, because thermals stop rising in places cool enough to condense the thermal's water vapor.

○ Thermals usually rise to the same altitude as clouds, because cool air in clouds allows the water vapor to condense.

9..Which TWO statements below about thermal chimneys would the biologists discussed in paragraph 3 regard as likely true To receive credit, you must select TWO answers.

○ They cover only a small area.

○ They sometimes contain dust devils.

○ They usually spin very quickly.

○ They usually end in a fluffy cloud.

10..Paragraph 3 indicates that all of the following are true of thermals EXCEPT:

○ Air movement is more intense at their higher reaches.

○ They can rise above cloud level.

○ They usually become wider as they rise.

○ They sometimes rise more than a kilometer from Earth's surface.

Paragraph 4：As long as the upward speed of the thermal is greater than the sinking speed of a glider, the glider will ascend in the thermal. Of course, the glider will quickly fly out of the thermal if it flies in a straight line, so it must circle to stay in the rising air. (A glider should stay on the inside of the ring, because the air on the outer edge of the ring is actually rolling downward.) Imagine a vulture ascending to 1,500 meters above the ground by circling in a ring thermal. From this height, it will be able to fly out of the thermal and glide for about 30 minutes (traveling over 23 kilometers) before it runs out of altitude and needs to either start flapping, find another thermal, or land. Many soaring birds use just this pattern: climbing up in a thermal, gliding a long distance, then finding another thermal in which to soar. This type of flight is an efficient way to cover long distances at a low energy cost, making it a handy way to migrate or search for food.

11. According to paragraph 4, a bird that flies by alternating between soaring and gliding gains which of the following advantages

○ It can often cover short distances faster than it could by flapping its wings to travel.

○ It is able to travel a long way without using a lot of energy.

○ It can find thermals more quickly than it could by flapping its wings to travel.

○ It can stay inside the thermal regardless of how thermal speeds change.

Paragraph 5：Slope soaring is useful when wind blows upward along a slope. The speed of the wind's upward motion can be calculated in the same manner that the sinking speed of a glider is calculated. If the upward speed of this wind is greater than or equal to the sinking speed of a glider, the glider will be able to maintain altitude. Such ridge lift has a characteristic that is both an advantage and a disadvantage: ridge lift is usually predictably tied to a particular slope, so it is easy to find. But it is usable only in that fixed, local area.

12..Which of the following is discussed in paragraph 5 as a disadvantage of slope soaring as compared to thermal soaring

○ Slope soaring does not allow a bird to remain at a constant altitude.

○ Gliders tend to travel at slower speeds during slope soaring than during thermal soaring.

○ Slope soaring is limited to the area where the particular slope is located.

○ It is difficult to predict the location of an area suitable for slope soaring.

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

Soaring uses energy such as rising air currents to allow birds to increase time aloft.

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

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

○ Birds can soar by finding an updraft, which is created either by air rising from ground that is warmer than the surrounding ground or by wind blowing up a hill or over a large obstacle.

○ Soaring is possible in updrafts in which the air's upward speed is greater than the bird's sinking speed.

○ Birds flying over a flat meadow often need to flap their wings in order to stay at the same altitude because thermal chimneys and ring thermals typically do not form in such areas.

○ Birds can travel in an energy-efficient way by soaring upward in thermals and then leaving the thermal and gliding to lower altitudes.

○ Birds that need to fly over long distances generally do not use thermals because they limit the distance the birds can soar.

○ Thermals that form as a result of ridges have predictable speeds that depend on the incline of the particular slope and the climate of the local area.

Pleistocene Extinctions

Paragraph 1: At the end of the Pleistocene (roughly 11,500 years ago), many large mammals became extinct. Large mammals in the Americas and Australia were particularly hard-hit. In Australia, 15 of the continent's 16  of large mammals died out; North America lost 33 of 45 genera of large mammals, and in South America 46 of 58 such genera went extinct. In contrast, Europe lost only 7 of 23 such genera, and in Africa south of the Sahara only 2 of 44 died out. What caused these extinctions  Why did these extinctions eliminate mostly large mammals  Why were the extinctions most severe in Australia and the Americas  No completely satisfactory explanation exists, but two competing hypotheses are currently being debated. One holds that rapid climatic changes at the end of the Pleistocene caused extinctions, whereas another, called prehistoric overkill, holds that human hunters were responsible.

1..According to paragraph 1, which of the following groups of mammals experienced a high extinction rate at the end of the Pleistocene

○ Large mammals living in North America

○ Small mammals living in South America

○ Large mammals living in South Africa

○ Large mammals living in Europe

2..According to paragraph 1, researchers have been able to answer which of the following questions about late Pleistocene extinctions

○ Why did some parts of the world experience more extinctions than others

○ Which parts of the world experienced the greatest number of extinctions

○ Did the large mammals of the Americas or Australia become extinct first

○ How rapidly did the climate change during the extinctions

3..What can be inferred from paragraph 1 about the extinctions that occurred at the end of the Pleistocene

○ They were caused by a single factor.

○ They had relatively little impact on small mammals.

○ They wiped out nearly all of the world's large mammal species.

○ They occurred slowly over a period of thousands of years.

Paragraph 2: Rapid changes in climate and vegetation occurred over much of Earth's surface during the late Pleistocene, as glaciers began retreating. The North American and northern Eurasian open steppe tundras (treeless and permanently frozen land areas) were replaced by conifer and broadleaf forests as warmer and wetter conditions prevailed. The Arctic region changed from a productive herbaceous one that supported a variety of large mammals, to a relatively barren waterlogged tundra that supported a far ‍sparser‍ fauna. The southwestern United States region also changed from a moist area with numerous lakes, where saber-tooth cats, giant ground sloths, and mammoths roamed, to a semiarid environment unable to support a diverse fauna of large mammals.

4..The word sparser in the passage is closest in meaning to

○ more thinly distributed

○ more threatened

○ less adapted

○ less mobile

5..All of the following are mentioned in paragraph 2 as changes that occurred during the late Pleistocene EXCEPT:

○ The Eurasian tundras became more forested as both temperature and rainfall increased.

○ The Arctic region became less productive, and much of its fauna and flora began to disappear.

○ The southwestern United States became much drier, resulting in a decline in species diversity.

○ The North American open steppe tundras became cooler, resulting in a decrease in vegetation.

Paragraph 3: Rapid changes in climate and vegetation can certainly affect animal populations, but the climate hypothesis presents several problems. First, why did the large mammals not migrate to more suitable habitats as the climate and vegetation changed  After all, many other animal species did. For example, reindeer and the arctic fox lived in southern France during the last glaciation and migrated to the Arctic when the climate became warmer.

The second argument against the climatic hypothesis is the apparent lack of correlation between extinctions and the earlier glacial advances and retreats throughout the Pleistocene Epoch. Previous changes in climate were not marked by ‍episodes‍ of mass extinctions.

6..In paragraph 3, why does the author point out that some animals living in southern France migrated to the Arctic when the climate became warmer

○ To show that more suitable habitats existed at the time that the megafauna became extinct

○ To question the idea that the megafauna were able to migrate to more suitable habitats

○ To provide evidence that weakens the climate hypothesis for the megafauna extinctions

○ To argue that smaller animals are more successful at adapting to rapid changes in climate

7..The word episodes in the passage is closest in meaning to

○ threats

○ patterns

○ reports

○ occurrences

Paragraph 4: ‍Proponents‍ of the prehistoric overkill hypothesis argue that the mass extinctions in North and South America and Australia coincided closely with the arrival of humans. Perhaps hunters had a tremendous impact on the faunas of North and South America about 11,000 years ago because the animals had no previous experience with humans. The same thing happened much earlier in Australia soon after people arrived about 40,000 years ago. No large-scale extinctions occurred in Africa and most of Europe because animals in those regions had long been familiar with humans.

8..The word ‍‍Proponents‍‍ in the passage is closest in meaning to

○ creators

○ opponents

○ reviewers

○ supporters

 9..In paragraph 5, why does the author discuss what happened in Australia 40,000 years ago

○ To suggest that humans most likely arrived in North and South America much earlier than 11,000 years ago

○ To make a comparison that supports the prehistoric overkill hypothesis

○ To argue that most extinctions can be traced to the impact of humans on the environment

○ To emphasize the similarities between the extinctions that occurred in Australia and those that occurred in Africa and Europe

Paragraph 5: One problem with the prehistoric overkill hypothesis is that archaeological evidence indicates the early human inhabitants of North and South America, as well as Australia, probably lived in small, scattered communities, gathering food and hunting. How could a few hunters destroy so many species of large mammals  However, it is true that humans have caused major extinctions on oceanic islands. For example, in a period of about 600 years after arriving in New Zealand, humans exterminated several species of the large, flightless birds called moas. A second problem is that present-day hunters concentrate on smaller, abundant, and less dangerous animals. The remains of horses, reindeer, and other small animals are found in many prehistoric sites in Europe, whereas mammoth and woolly rhinoceros remains are scarce. Finally, few human artifacts are found among the remains of extinct animals in North and South America, and there is usually little evidence that the animals were hunted. Countering this argument is the assertion that the impact on the previously unhunted fauna was so ‍swift‍ as to leave little evidence.

10..The word swift in the passage is closest in meaning to

○ effective

○ unexpected

○ quick

○ complete

11..According to paragraph 5, archaeological evidence of settlement patterns in North and South America indicates which of the following

○ Human populations may have been too small and too far apart to have caused the extinction of large mammals.

○ Humans may have lived too far away from the habitats of large mammals to have been responsible for their extinctions.

○ Humans probably did not cause the extinction of large mammals, because they spent far more time gathering food than hunting.

○ Humans probably did not remain in their settlements long enough to have a significant impact on populations of large mammals.

12..In paragraph 5, the author identifies all of the following as being problems with the prehistoric overkill hypothesis EXCEPT:

○ There were not enough people to kill so many species of large animals.

○ There is little evidence to show that extinct animals were hunted.

○ Prehistoric Europeans apparently preferred hunting smaller animals.

○ It took 600 years for humans in New Zealand to exterminate just a few species of moa birds.

Paragraph 6: The reason for the extinctions of large Pleistocene mammals is still unresolved and probably will be for some time. It may turn out that the extinctions resulted from a combination of different circumstances. Populations that were already under stress from climate changes were perhaps more vulnerable to hunting, especially if smaller females and young animals were the preferred targets.

1. . One problem with the prehistoric overkill hypothesis is that archaeological evidence indicates the early human inhabitants of North and South America, as well as Australia, probably lived in small, scattered communities, gathering food and hunting. How could a few hunters destroy so many species of large mammals.  【A】However, it is true that humans have caused major extinctions on oceanic islands.【B】 For example, in a period of about 600 years after arriving in New Zealand, humans exterminated several species of the large, flightless birds called moas. 【C】A second problem is that present-day hunters concentrate on smaller, abundant, and less dangerous animals. 【D】The remains of horses, reindeer, and other small animals are found in many prehistoric sites in Europe, whereas mammoth and woolly rhinoceros remains are scarce. Finally, few human artifacts are found among the remains of extinct animals in North and South America, and there is usually little evidence that the animals were hunted. Countering this argument is the assertion that the impact on the previously unhunted fauna was so ‍swift‍ as to leave little evidence.

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

【It should be noted, however, that island conditions that lead to extinction, such as limited space to escape predators, do not apply to landmasses such as continents.】

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

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

○ Rapid climate change has been proposed as a cause of the extinctions, though there is strong evidence that mammals were able to survive similar climate changes in the past.

○ The climatic hypothesis has gained more support than the prehistoric overkill hypothesis because climate change can explain why very few extinctions occurred in Europe and Africa.

○ Some researchers have begun to doubt the idea that mass extinctions occurred at the end of the Pleistocene, because large animal remains are rarely found at settlements dating from this time.

○ Late Pleistocene hunters may have killed off large mammals when they first arrived in certain areas, but evidence from settlements and animal remains does not often support this hypothesis.

○ According to the prehistoric overkill hypothesis, the extinctions were concentrated in North and South America because these areas had more hunters and smaller populations of large mammals.

○ Although neither the climatic hypothesis nor the prehistoric overkill hypothesis alone explains late Pleistocene extinctions, elements of both and other factors may have contributed to the extinctions.

Europe in the High Middle Ages

Europe in the High Middle Ages答案：A C D D C; B C A B D; C A A BCF

Gliding and soaring:答案：D D B C A; A C C (AC) B; B C A ABD

Pleistocene Extinctions

Pleistocene答案：A B B A D; C D D B C; A D C ADF

第6套

Sumerian Contributions（17年3月4日考过）

Paragraph 1： Before about 4500 B.C., lower Mesopotamia, the region between the Tigris and Euphrates rivers just north of the Persian Gulf, was much less densely populated than other inhabited regions of the Near and Middle East. Its marshy soil, subject to annual inundations floods from the rivers, was not suited to the primitive hoe culture of early agriculture, in which land was cultivated without domestic animals or beasts. Moreover, the land was virtually treeless and lacked building stone and mineral resources. During the next thousand years, however, this (unpromising) area became the seat of Sumer, the first great civilization known to history, with large concentrations of people, bustling cities, monumental architecture, and (a wealth of) religious, artistic, and literary traditions that influenced other ancient civilizations for thousands of years. The exact sequence of events that led to this culmination is unknown, but it is clear that the economic basis of this first civilization lay in its highly productive agriculture.

1..The word unpromising in the passage is closest in meaning to

○ unfavorable

○ underdeveloped

○ distant

○ expansive

2..The phrase a wealth of in the passage is closest in meaning to

○ a strong competition among

○ a valuable source of

○ a deep respect for

○ an abundance of

3..According to paragraph 1, which of the following was NOT true of lower Mesopotamia before 4500 B.C.

○ It was flooded every year by rivers.

○ Its soil was unsuitable for Stone Age hoe culture agriculture.

○ It was comparatively dense in population.

○ It had few trees.

Paragraph 2： The natural fertility of the rich black soil was renewed annually by the silt left from the spring floods of the Tigris and Euphrates rivers. Harnessing its full productive power, however, required an elaborate system of drainage and irrigation, which in turn required a large and well-disciplined workforce as well as skilled management and supervision. The latter were supplied by a class of priests and warriors who ruled a large population of peasants and artisans. Through taxation and other means the rulers extracted wealth from the population and then used it to construct temples and other public buildings and to create works of art. That gave them or some of them the leisure to perfect the other refinements of civilization.

4..According to paragraph 2, which of the following was true of the soil in lower Mesopotamia

○  It was relatively unfertile until humans added other, richer types of soil to it.

○  It reached full productivity only when elaborate drainage and irrigation systems were added.

○ Its most valuable nutrients were washed away by the spring floods of the Tigris and Euphrates rivers.

○ Its silt was removed by a large, well-disciplined workforce.

5..According to paragraph 2, which of the following was true of priests and warriors in Sumerian society

○ Their technical expertise was essential in the development of new irrigation and drainage systems.

○ They encouraged peasants and artisans to perfect the refinements of civilization.

○ They were responsible for managing and supervising the workforce.

○ They alone paid the taxes that funded the construction of temples.

Paragraph 3： The rise of civilization brought with it a far more complex division of labor and system of economic organization. █Full-time artisans specialized in the manufacture of textiles and pottery, metalworking, and other crafts. █The professions of architecture, engineering, and medicine, among others, were born. █Weights and measures were systematized, mathematics was invented, and primitive forms of science emerged. █Since Sumer was virtually (devoid of) natural resources other than its rich soil, it traded with other people, thereby contributing to the (diffusion) of Sumerian civilization. The scarcity of stone, for tools as well as for buildings, probably hastened the adoption of copper and bronze. Copper, at least, was already known before the rise of Sumerian civilization, but lack of demand for it among the Stone Age peasant villages inhibited its widespread use. 【In Sumerian cities, on the other hand, stone imported by sea through the Persian Gulf from Oman and downriver from the mountains of Anatolia and the Caucasus had to compete with imported copper, and the latter proved more economical and effective for a variety of uses. 】Thereafter metallurgy, the technology of separating metals from their ores and purifying them, was regarded as one of the hallmarks of civilization.

6..The phrase devoid of in the passage is closest in meaning to

○ using up

○ looking for

○ lacking in

○ uninterested in

7..The word diffusion in the passage is closest in meaning to

○ stability

○ spread

○ prosperity

○ productivity

8..Which of the following is mentioned in paragraph 3 as an effect of Sumerian trade

○ The spread of Sumerian civilization to people outside Sumer

○ The discovery of copper

○ A rise in the price of textiles, pottery, and other goods sold within Sumer

○ An increase in the scarcity of stone within Sumer

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.

○ Sumerian cities developed a trade in copper and stone that extended as far as Oman in the Persian Gulf and the mountains of Anatolia and the Caucasus.

○ Sumerian cities competed with traders elsewhere to produce copper that was more economical and useful than stone.

○ In Sumerian cities, imported copper often proved more economical and useful than imported stone.

○ The copper and stone imported from Oman, Anatolia, and the Caucasus proved more economical and effective than the copper and stone found in Sumerian cities.

Paragraph 4：Sumer's greatest contribution to subsequent civilizations, the invention of writing, likewise grew out of economic necessity. The early citiesEridu, Ur, Uruk, and Lagashwere temple cities: both economic and religious organizations centered on the temple of the local patron deity, represented by a priestly hierarchy. Members of the hierarchy directed the construction and maintenance of irrigation and drainage systems; oversaw agricultural activities; and supervised the collection of produce as taxation or tribute money or other wealth given as a sign of submission or in return for protection. The need to keep records of the sources and uses of this tribute led to the use of simple pictographs on clay tablets sometime before 3000 B.C. By about 2800 B.C. the pictographs had been stylized into the system of writing known as cuneiform using wedge-shaped marks on clay, a distinctive characteristic of Mesopotamian civilization. It is one of the few examples in history of a significant innovation issuing from a bureaucratic organization.

10..In paragraph 4, why does the author point out that the economic and religious organizations of early Sumerian cities centered on local temples

○ To identify the bureaucratic needs that led to the development of writing

○ To identity factors responsible for the significant influence of Sumerian writing on subsequent civilizations

○ To explain why few examples of significant innovations have issued from a bureaucratic organization

○ To explain why the use of simple pictographs eventually became stylized into the system of writing known as cuneiform

11..Paragraph 4 implies all the following about cuneiform EXCEPT:

○ It arose after 3000 B.C.

○ It involved stylized pictographs.

○ It was designed to further the purposes of the priestly bureaucracy.

○ It was developed outside of the early temple cities.

Paragraph 5：Although writing originated in response to the need for administrative bookkeeping, it soon found multiple religious, literary, and economic uses. In a later phase of development, after the strict temple-centered organization of the economy had given way to greater freedom of enterprise, clay tablets were used for recording the details of contracts, debts, and other commercial and financial transactions.

12..According to paragraph 5, which of the following was true of Sumerian writing during the period of greater freedom of enterprise

○ Knowledge of it was limited to the temple-centered administration.

○ It was used for purposes beyond those for which it was first created.

○ It was used primarily to help keep the traditional leadership in power.

○ It led to further technological developments by 2800 B.C.

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

For example, the Sumerians learned to use the position of the stars and planets to predict weather and for traveling at night.

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

Paragraph 3： The rise of civilization brought with it a far more complex division of labor and system of economic organization. █Full-time artisans specialized in the manufacture of textiles and pottery, metalworking, and other crafts. █The professions of architecture, engineering, and medicine, among others, were born. █Weights and measures were systematized, mathematics was invented, and primitive forms of science emerged. █Since Sumer was virtually (devoid of) natural resources other than its rich soil, it traded with other people, thereby contributing to the (diffusion) of Sumerian civilization. The scarcity of stone, for tools as well as for buildings, probably hastened the adoption of copper and bronze. Copper, at least, was already known before the rise of Sumerian civilization, but lack of demand for it among the Stone Age peasant villages inhibited its widespread use. 【In Sumerian cities, on the other hand, stone imported by sea through the Persian Gulf from Oman and downriver from the mountains of Anatolia and the Caucasus had to compete with imported copper, and the latter proved more economical and effective for a variety of uses. 】Thereafter metallurgy, the technology of separating metals from their ores and purifying them, was regarded as one of the hallmarks of civilization.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Originally, Sumerians cultivated the lower Mesopotamia region using primitive hoes and domesticated animals.

○ The flooding of the Tigris and Euphrates rivers caused peasants to look to religion for explanations, resulting in the development of a large class of priests.

○ Priests and warriors managed and supervised the workforce that operated the elaborate drainage and irrigation system required to maximize agricultural production.

○ The emergence of new professions, sciences, and techniques and the development of trade resulting from Sumer's lack of natural resources led to a complex labor and economic system.

○ The need on the part of the priestly hierarchy to keep track of who had paid taxes and tribute and how those were spent resulted in the invention of writing.

○ As writing became more complex, priests increasingly put ordinary people in charge of running day-to-day operations within the Sumer economy.

The Cambrian Explosion（16年11月5日和17年5月13日考过）

Paragraph 1： The earliest fossil evidence for eukaryotes complex organisms whose cells contain a distinct nucleus dates to only about 1.2 billion years ago. The fossil record suggests that animal evolution progressed slowly, with relatively little change seen between fossils from 1.2 billion years ago and those from a half-billion years later. But then something quite dramatic happened as can be judged by the many different animal groups that suddenly appear in the fossil record.

1..Paragraph 1 implies which of the following about evolutionary change

○ Eukaryotes have a very slow rate of evolution.

○ The fossil record of evolutionary change is incomplete for the first half-billion years of animal evolution.

○ Evolution has not always proceeded at the same rate.

○ Evolutionary rates of change in animals were slowing down considerably before a dramatic reversal happened 1.2 billion years ago.

Paragraph 2：Biologists classify animals according to their basic body plans. For example, the basic body plan shared by mammals and reptiles is fundamentally different from that of insects. Animals are grouped by body plan into what biologists call phyla. Mammals and reptiles both belong to the single phylum Chordata, which includes animals with internal skeletons. Insects, crabs, and spiders belong to the phylum Arthropoda, which contains animals with body features such as jointed legs, an external skeleton, and segmented bodies. Classifying animals into phyla is an (ongoing) project for biologists, but modern animals appear to comprise about 30 different phyla, each representing a different body plan.

2..The word ongoing in the passage is closest in meaning to

○ uncertain

○ full-time

○ important

○ continuing

3..In paragraph 2, why does the author provide the information that Arthropoda represents animals with features like jointed legs, an external skeleton, and segmented body parts

○ To indicate basic physical differences among insects, crabs, and spiders

○ To illustrate the types of physical characteristics considered when classifying animals

○ To show the complexity of features that have evolved in organisms

○ To demonstrate that some phyla include a wider range of body plans than others do

Paragraph 3：Remarkably, nearly all of these different body plans, plus a few others that have gone extinct, make their first known appearance in the geological record during a period spanning only about 40 million years less than about 1 percent of Earth's history. This remarkable flowering of animal diversity appears to have begun about 545 million years ago, which (corresponds to) the start of the Cambrian period. Hence it is called the Cambrian explosion.

4..The phrase corresponds to in the passage is closest in meaning to

○ causes

○ occurs before

○ differs from

○ matches

Paragraph 4：The fact that the Cambrian explosion marks the only major diversification of body plans in the geological record presents us with two important and related questions: Why, so long after the origin of eukaryotes, did the pace of evolution suddenly accelerate dramatically at the beginning of the Cambrian, and why hasn't there been another period of similarly explosive diversification since then？

5..According to paragraphs 3 and 4, what was remarkable about the Cambrian explosion

○ That the evolution of species occurred so soon after the first eukaryotes appeared

○ That most of the known animal types appeared in a relatively short period in history

○ That many of the animal types that appeared in the period have survived until today

○ That the pace of evolution slowed before it accelerated

6..The function of the two questions in paragraph 4 is to

○ recognize two common questions that cannot be addressed within the passage

○ present the two different points of view contrasted in the passage

○ provide important objections to the central idea of the passage

○ indicate two important questions that will be explored in the passage

Paragraph 5：We can identify at least four factors that might have contributed to the Cambrian explosion. First, the oxygen level in our atmosphere may have remained well below its present level until about the time of the Cambrian explosion. Thus, the rapid diversification in animal life may have occurred at least in part because oxygen reached a critical level for the survival of larger and more energy-intensive life forms.

7..Paragraph 5 implies which of the following about oxygen

○ It was not essential for the life forms that appeared before the Cambrian period.

○ It has remained at relatively the same level since the beginning of the fossil record.

○ Its changes in levels are associated with animal extinctions.

○ Its levels before the Cambrian period were too low for large animals to survive.

Paragraph 6：A second factor that may have been important was the evolution of genetic (complexity). As eukaryotes evolved, they developed more and more genetic variation in their DNA. Some scientists believe that the Cambrian explosion marks the point at which organisms developed certain kinds of genes homeobox genes that control body form and that could be combined in different ways, (allowing) the evolution of a great diversity of forms over time.

8..The word complexity in the passage is closest in meaning to

○ sophistication

○ adaptation

○ improvement

○ variation

9..The word allowing in the passage is closest in meaning to

○ resulting in

○ making possible

○ preceding

○ spreading

Paragraph 7：A third factor may have been climate change. Geological evidence points to a series of episodes in which Earth froze over before the Cambrian began. The extreme climate conditions of these episodes eliminated many species, leaving a wide array of ecological niches available into which new species could rapidly evolve when climate conditions eased at the beginning of the Cambrian.

10..According to paragraph 7, all of the following occurred before the Cambrian began EXCEPT:

○ Almost all of Earth froze over.

○ New ecological niches were filled by new species.

○ A series of extreme climate episodes occurred.

○ Many species became extinct.

Paragraph 8：A fourth factor may have been the absence of efficient predators. 【Early predatory animals were probably not very sophisticated, so some evolving animals that later might have been eliminated by predation were given a chance to survive, making the beginning of the Cambrian period a window of opportunity for many different adaptations to establish themselves in the environment.】

11..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.

○ Predators at the beginning of the Cambrian period had to become more sophisticated in order to survive in environments with newly adapted animals.

○ New adaptations had an opportunity to survive at the beginning of the Cambrian period because early predators were not yet sophisticated enough to eliminate the animals with these adaptations.

○ Early predatory animals lacked sophisticated adaptations because they did not develop them during a window of opportunity in the early Cambrian period.

○ Early predators had an opportunity at the beginning of the Cambrian period to remove new adaptations before they established themselves in the environment.

Paragraph 9：This last idea may partly explain why no similar explosion of diversity has taken place since the Cambrian: once predators were efficient and widespread, it may have been virtually impossible for animals with entirely new body forms to find an environmental niche in which they could escape predation. █Or it may be that while more body plans may have been possible at some early point in evolution, it was not possible to evolve into those other body plans from the body plans that evolved in the Cambrian. █Or perhaps the various body forms that arose during the Cambrian explosion represent the full range of forms possible given the basic genetic resources that characterize all Earth's organisms. █In any case, no fundamentally new body forms have emerged since the Cambrian explosion. █

12..Paragraph 9 suggests all of the following possible explanations for the uniqueness of the Cambrian explosion EXCEPT

○ the inability of later animals to evolve body plans different from those that appeared during the Cambrian period

○ the post-Cambrian appearance of efficient predators occupying nearly every environmental niche

○ the decline in the number of habitats having sufficient resources to support the rapid evolution of new species

○ the limited range of genetically possible body types

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

After all, evolution of body structure can act only on the structure that already exists.

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

Paragraph 9：This last idea may partly explain why no similar explosion of diversity has taken place since the Cambrian: once predators were efficient and widespread, it may have been virtually impossible for animals with entirely new body forms to find an environmental niche in which they could escape predation. █Or it may be that while more body plans may have been possible at some early point in evolution, it was not possible to evolve into those other body plans from the body plans that evolved in the Cambrian. █Or perhaps the various body forms that arose during the Cambrian explosion represent the full range of forms possible given the basic genetic resources that characterize all Earth's organisms. █In any case, no fundamentally new body forms have emerged since the Cambrian explosion. █

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Biologists want to find out why the rapid diversification of body forms did not happen soon after the appearance of eukaryotes around 1.2 billion years ago.

○ Biologists classify animals according to their body plans into phyla such as Chordata, animals with a backbone, and Arthropoda, animals with segmented exoskeletons.

○ The Cambrian explosion was a unique episode in the history of evolution that produced nearly all of the 30 or so animal body plans that have ever been seen.

○ The Cambrian explosion may have been aided by genes that could yield a variety of body forms and the inability of early predators to eliminate the new forms.

○ Once predators became efficient after the Cambrian explosion, they were able to eliminate any animals that began to evolve a new body plan.

○ At the beginning of the Cambrian, an increase in oxygen needed for animal growth and the return of a hospitable climate may have contributed to the Cambrian explosion.

Weak Electric Systems in Fish（16年9月19日考过）

Paragraph 1：Some blind elephantnose fish produce weak electric signals that are used for detecting objects in their surroundings a phenomenon called active electrolocation. These fish have specialized electric organs that discharge either in pulses or in a wave-like fashion, depending on the species. 【Although discharges follow one another almost continuously throughout the life of the fish, their power level is much too low to be detected by human handlers but potent enough to create a stable electric field around the body of the fish.】When an object enters into this electric field, it causes (distortions) in the current that are detected by electroreceptor organs distributed over the fish's skin.

1..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.

○ Throughout the life of the fish, its electric discharges vary in power from undetectable to fairly potent.

○ Nearly continuous discharges undetectable by humans create a stable, low-level electric field around the body of the fish.

○ Human handlers cannot feel the electric discharges because the discharges are at such low power levels.

○ The discharges are so weak that they would have to be fired almost continuously to create a detectable electric field.

2..The word distortions in the passage is closest in meaning to

○ decreases

○ signals

○ concentrations

○ irregularities

Paragraph 2：A weak electric system may have several uses, including the exploration of novel environments. For example, blind elephantnose fish can easily find the only opening that allows them to cross through a newly installed partition within their aquarium, even though they cannot see it with their eyes. Their electric sense must be implicated because when these individuals become electrically silent unable to use their electric system through denervation of their electric organs, they can no longer find the opening.

3..Paragraph 2 describes an experiment with elephantnose fish that were electrically silent and therefore unable to

○ distinguish between new and familiar objects in their aquarium

○ swim around the partition in their aquarium

○ find their way through a hole in a barrier

○ see with their eyes

Paragraph 3：During the 1970s, biologists became interested in the role of the weak electric system not only as a means of electrolocation but also as a means of electrical communication between individual fish. Communication is possible because the rate and waveform of the electric discharges can vary between species, between sexes, between individuals, or even between situations in the same individual. Moreover, some fish can (temporarily) interrupt their normally continuous train of discharges, and these pauses can be full of meaning. The effective range of communication by electric signals can reach a little over 1 meter depending on water resistance.

4..All of the following are mentioned in paragraph 3 as components of communication in electric fish EXCEPT

○ the rate of electric discharges

○ the direction in which discharges travel

○ the waveform of electric discharges

○ pauses between electric discharges

5..The word temporarily in the passage is closest in meaning to

○ deliberately

○ suddenly

○ partially

○ briefly

Paragraph 4：In terms of functions, electric communication is strikingly similar to acoustical vocalization (vocal sounds). Some of these functions are concerned with reproductive activity. In some species, males switch to new electric calls during courtship, resuming their regular programming only after the mating season is over. In species in which each sex has its own distinctive pattern of discharges, females are attracted to the pattern of males, and males to the pattern of females. Females can even be induced to release their eggs in the vicinity of electrodes that imitate a male signal¨ the spark of love. As expected, through natural selection, both males and females prefer the electric pattern of their own species to that of other species.

6..The author provides the information that Females can even be induced to release their eggs in the vicinity of electrodes that imitate a male signal in order to

○ emphasize the importance of electric signals in some fish mating behavior

○ argue that many fish are not very particular when choosing a mate

○ show that electric signals alone do not provide adequate information for mate selection

○ imply that identifying a potential mate by its electric signal is more difficult than it might seem

Paragraph 5：Other functions relate to aggression. Aggressive individuals often precede their attacks with an increase in discharge rate, whereas submissive fish may stop emitting altogether. This submissive behavior seems to work. Researchers have found that individuals rendered electrically silent through denervation of their electric organs are seldom attacked by dominant fish. Finally, individual recognition can also be based on electric signatures. In banded knifefish, territory neighbors recognize each other through individually distinctive discharge waveforms.

7..All of the following are mentioned in paragraphs 4 and 5 as ways fish communicate using discharge patterns EXCEPT:

○ Some fish increase their rate of discharge right before they attack.

○ Some fish reproduce the electric pattern of another species to hide from a predator.

○ Some male fish switch to a different electric call during mating season.

○ Some fish temporarily stop discharging as a sign of submission.

8..In saying that Aggressive individuals often precede their attacks with an increase in discharge rate the author means that

○ aggressive individuals often prepare for their attacks by increasing the discharge rate

○ aggressive individuals often intensify their attacks by increasing the discharge rate

○ attacks by aggressive individuals often increase when there is an increase in the discharge rate

○ an increase in the discharge rate often occurs before aggressive individuals attack

9..According to paragraph 5, becoming electrically silent can affect a fish by

○ causing it to become more aggressive

○ making it a more frequent target of attacks

○ damaging its organs for sending electric signals

○ making it less likely to be attacked by dominant fish

Paragraph 6：The fact that weak electric fish can use their electric sense to communicate with one another leads to an interesting question: How can a fish distinguish between its own electric bursts and those from another fish In blind elephantnose fish, the problem is solved by the presence of two types of electroreceptors. One of these two types is automatically and briefly shut down each time the fish discharges. Therefore, any signal picked up by these electroreceptors has to come from another animal. Elephantnose fish also have the habit of echoing the discharges of other individuals. They discharge their own electric organ a fixed time after sensing the electric signal of another fish. This response time is extremely short approximately 12 milliseconds probably the most rapid form of communication in the animal kingdom.

10..According to paragraph 6, one of the types of electroreceptors of the elephantnose fish shuts down at times in order to

○ avoid confusing its own signals with those of other fish

○ prevent the receptor from becoming damaged

○ distinguish between signals of short and long duration

○ enable the fish to produce echoes of the discharges of other fish

Paragraph 7：Knifefish also display a (peculiar) behavior called the jamming avoidance response. This response allows knifefish to prevent interference with their electric system when they meet other knifefish. In order to avoid confusion, an electric fish must somehow keep track of the discharge rate of another knifefish while remaining aware of its own. If the two rates are too close, each fish alters its frequency of discharge so as to widen the gap between the two. In a sense, they do not want to get their wires crossed. In the laboratory, it is possible, using artificial signals, to force a knifefish to decrease its frequency of firing just by exposing it to a high but slowly decreasing signal rate or to increase its frequency of firing by switching to a low but slowly rising signal rate.

11..The word peculiar in the passage is closest in meaning to

○ clever

○ frequent

○ unusual

○ helpful

12..According to paragraph 7, what happens when a knifefish comes into contact with another knifefish that has a similar discharge rate

○ Both fish speed up their discharge rate, perhaps out of a sense of competition.

○ Both fish slow down their discharge rate so that they are better able to hear each other.

○ One fish increases its discharge rate while the other decreases it, making the signals less similar.

○ Each fish slowly changes its discharge rate until they match up perfectly.

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

Each fish in an encounter is discharging electric signals at a specific rate.

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

Paragraph 7：Knifefish also display a (peculiar) behavior called the jamming avoidance response. █This response allows knifefish to prevent interference with their electric system when they meet other knifefish. █In order to avoid confusion, an electric fish must somehow keep track of the discharge rate of another knifefish while remaining aware of its own. █If the two rates are too close, each fish alters its frequency of discharge so as to widen the gap between the two. █ In a sense, they do not want to get their wires crossed. In the laboratory, it is possible, using artificial signals, to force a knifefish to decrease its frequency of firing just by exposing it to a high but slowly decreasing signal rate or to increase its frequency of firing by switching to a low but slowly rising signal rate.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

○ Some fish have special organs that produce a weak electric field around their body and have receptor organs that allow them to detect disruptions to this field.

○ Electrolocation is used primarily by fish who are blind, whereas electric communication is used by fish who are not equipped for acoustical vocalization.

○ Research suggests that the effective range of communication by electric signals can reach a little over 1 meter, depending on water resistance.

○ Distinctive discharge patterns allow fish with a weak electric system to identify each other by sex or species, or even recognize particular individuals.

○ Most fish with a weak electric system have two forms of electroreceptors so that they can detect both very fast and very slow discharge rates.

○ Fish can deliberately slow, speed up, or pause their rate of discharge in order to communicate and to avoid confusing their own signals with those of another fish.

答案

1. Sumerian Contributions: 1-5. A D C B C; 6-10. C B A C A; 11-14. D B D CDE

1. The Cambrian Explosion: 1-5. C D B D B ; 6-10. D D A B B; 11-14. B C B BCD

The Cambrian Explosion（16年11月考过，之后17年5月13日又考到了）

3.Weak Electric Systems in Fish: 1-5. B D C B D; 6-10. A B D D A; 11-14. C C B ADF

Weak Electric Systems in Fish（2016年9月19日考过）

第7套

Photography and the Pictorial Weeklies

In the 1840s a new type of publication arose in Britain and the United States: the pictorial weekly. Early pictorial weeklies were large-size news magazines that included 【plentiful】 illustrations, often based on woodblock engravings. These magazines owed their rise in part to the development of new and better printing technologies, such as electrotype, and electrical process that used a wax mold of a page, covered in graphite, to create a metal plate for printing. Other methods had previously been used to create plates for printing, but the electrotype process was easier, faster, and more precise. It enabled the pictorial weeklies to have a distinctive large format.

1.The word “plentiful” in the passage is closest in the meaning to

A.popular

B.wonderful

C.numerous

D.complex

2.According to paragraph 1, the rise of pictorial weeklies in the 1840s made possible in part by

A.the discovery that electricity could be used to power printing presses

B.the discovery that plates could be used to print magazines faster than before

C.the development of new printing technologies

D.the development of new methods for carving woodblock designs

3.Paragraph 1 supports all of the following statements about the new weeklies of the 1840s EXCEPT:

A.They were larger than earlier magazines

B.They were the most popular type of mass publication

C.They included a large number of illustrations

D.They carried articles about news events

A second development of the early 1840s also influenced the nature of the illustrations in pictorial weeklies worldwide. If the arrival of the electrotype had made the high-volume printing of large, finely engraved illustrations possible, the emergence of photography gave many of these images a distinctive character. Soon after the daguerreotype (the earliest photographic process) had swept the world in the early 1840s, artists for pictorial weeklies began to use these early photographs as sources for their illustrations. The growing presence of woodblock-engraved portraits in the weeklies in the 1840s and 1850s arose directly from the popularity of portrait photographs, any of which could easily be mailed or shipped anywhere in the world. 【In 1857 the artist Winnslow Homer in Boston copied onto a woodblock a daguerreotype portrait of a sea captain who lived in California thereby allowing the captain’s likeness to reach publication in the Companion without the subject’s having been within a few thousand miles of the artist who had drawn him.】 Nothing quite like this had been possible so routinely or with such ease before the introduction of the daguerreotype in France in 1839 and its rapid spread elsewhere.

4.The word “emergence” in the passage is closest in meaning to

A.improvement

B.prestige

C.influence

D.rise

5.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.By copying a daguerreotype portrait onto a woodblock, Winslow Homer was able to create a portrait for publication even though he had never been near the person depicted in the portrait.

B.In 1857 the artist Winslow Homer used a daguerreotype portrait, a woodblock likeness of a sea captain from publication in a Boston weekly.

C.In 1857 the Boston-based Companion published a likeness of a sea captain even though the sea captain lived far away in California.

D.The portraits that were published in the Companion and other weeklies were produced by artists such as Winslow Homer who copied daguerreotype portraits onto woodblocks

6.The word “routinely” in the passage is closest in meaning to

A.efficiently

B.regularly

C.quickly

D.cheaply

7. According to paragraph 2, how did the emergence of photography influence pictorial weeklies?

A.Photographs began to replace other types of illustration.

B.The use of photographs helped increase the worldwide popularity of weeklies.

C.Photographs made it possible to produce weeklies faster and more easily.

D.Artists began using photographs as sources for the illustrations they made for weeklies.

Beyond supplying them with subjects, photography also influenced what some illustrators drew and how they drew it. As daguerreotypes and, later, other photographic processes became increasingly common in the 1850s, illustrators began to imitate (as best they could in their linear medium) the distinctive tonality—the blend of light and dark areas—of early photographs. This was not easy to do in woodblock engraving, but an interest in tonal effects is nevertheless evident in the work of many wood engravers. Their efforts lent an aura of documentary realism to a magazine’s pages, at least for that part of the public that believed that a photograph captured more truth than an artist could. In a tour through the pages of European and American weeklies of the 1840s and 1850s, one encounters in many illustrations the various pictorial qualities that were common in early products of the camera. The stillness of many illustrations for weeklies, such as views of the dawn, echoed the static character of subjects photographed before lenses were last enough to stop motion. It was surely to provide a welcome contrast to this stillness that some magazine illustrators drew scenes full of depicted movement, such as scenes of people ice-skating.

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

A.delicate

B.attractive

C.heightened

D.characteristic

9.Why does the author mention that the efforts of some woodblock engravers “lent an aura of documentary realism to a magazine’s pages”?

A.To explain why woodblock engravers believed they could succeed in imitating pictorial elements of photography beyond tonal effects.

B.To suggest a reason why such artists were interested in creating tonal effects even though their medium was not well suited for creating tonal effects.

C.To suggest a reason why European and American pictorial became so popular in the 1840s and 1850s.

D.To explain why illustrators could portray more realistic images than photography could.

10.According to paragraph 3, why was so little motion depicted in many illustrations for weeklies?

A.It was more difficult to illustrate scenes depicting movement.

B.Representations of still scenes were thought to be more truthful.

C.Static representations like the dawn were the most popular.

D.The illustrations imitated the stillness of early photographs.

The influence of photography can also be felt in a shift in the general character of popular illustration that occurred during the early years of the pictorial weeklies. The move was one from humor to greater formality and dignity. Many of the leading book and magazine illustrators of the 1820s and 1830s had invested their work with an essentially comic outlook. Even when they illustrated serious subjects, the artists of this generation trusted imagination at least as much as observation. Their work reflected the high-spirited mood of the times in England and America. This spirit never entirely disappeared from the work of many of the most respected illustrators in the succeeding decades. But with the growth of a culture of greater propriety beginning in the 1840s, humor became dislodged from a central to a marginal position in the mainstream of the popular book and magazine illustration. Humorous writing survived nicely in comic journals, but those publications never had the prestige of serious publications.

11.According to paragraph 4, what was part of the explanation for the shift away from humor toward greater formality in popular illustration?

A.Many of the comic journals of the earlier period had either failed or cut back on the number of illustrations they published.

B.Mainstream popular magazines had begun including articles on serious subjects.

C.The mood of the times had become less lighthearted and more concerned with respectability.

D.The most respected illustrators had become unwilling to use imagination as a basis for their work.

12.Paragraph 4 supports which of the following statements about humorous illustration beginning in the 1840s?

A.It began to appear less frequently in mainstream publications.

B.It began to reflect the attitudes of magazine owners rather than of artists.

C.It generally became more imaginative.

D.It was more influenced by photography than were other types of illustration.

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

This was photography.

Where would the sentence best fit?

A second development of the early 1840s also influenced the nature of the illustrations in pictorial weeklies worldwide.【】If the arrival of the electrotype had made the high-volume printing of large, finely engraved illustrations possible, the emergence of photography gave many of these images a distinctive character. 【】Soon after the daguerreotype (the earliest photographic process) had swept the world in the early 1840s, artists for pictorial weeklies began to use these early photographs as sources for their illustrations. 【】The growing presence of woodblock-engraved portraits in the weeklies in the 1840s and 1850s arose directly from the popularity of portrait photographs, any of which could easily be mailed or shipped anywhere in the world.【】In 1857 the artist Winnslow Homer in Boston copied onto a woodblock a daguerreotype portrait of a sea captain who lived in California thereby allowing the captain’s likeness to reach publication in the Companion without the subject’s having been within a few thousand miles of the artist who had drawn him. Nothing quite like this had been possible so routinely or with such ease before the introduction of the daguerreotype in France in 1839 and its rapid spread elsewhere.

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

In the 1840s a new type of publication-the pictorial news weekly—arose in Britain and the United States.

A.Mass production of the large, finely engraved illustrations that characterized pictorial weeklies was made possible by improvements in printing that made it easier and faster to create metal plates.

B.As photography gained in popularity throughout the world in the 1840s, photographic portraits largely replaced portraits by woodblock engravers.

C.An increasing cultural concern for propriety and formality resulted in a shift away from the comic and imaginative illustrations of earlier decades.

D.Soon after the introduction of the daguerreotype in 1839, early photographs were used to aid in the creation of illustrations for the weeklies.

E.Many of the leading illustrators of books and magazines in the 1820s and 1830s later switched to comic journals because their high-spirted style did not suit the tone of the weeklies in later decades.

F.The new magazines attempted to achieve a look of documentary realism by ensuring that their illustrations, especially those depicting scenes full of movement, closely resembled photographs.

Farming New England in Colonial Times

When in the seventeenth and eighteenth centuries European settlers arrived in New England, the northeastern part of the United States, forest was the dominant form of vegetative cover, making agriculture difficult. Initially, the Europeans went in search of areas already cleared by Native Americans (the original inhabitants of the continent) that would be suitable for planting crops, to thereby save themselves from the backbreaking labor involved in clearing forestland.

1.The word “thereby” in the passage is closest in meaning to

A.initially

B.fortunately

C.consequently

D.eventually

2.According to paragraph 1, European settlers were interested in areas that had already been cleared by Native Americans because

A.they believed that the most fertile soil was to be found in those areas

B.they wanted to locate their field where they would do as little damage to the forest as possible

C.cleaning forestland to create fields was extremely hard work

D.It took some time before a newly cleared area became suitable for planting crops

Eventually, however, population growth outstripped the supply of cleared land, forcing the European settlers to cut down more forest themselves. For most of the settlers, cleared, arable land was the landscape most familiar to them from life back across the ocean. It took time to become accustomed to the hard labor involved in cutting down the woods. In the northern colonies, trees were usually chopped down, although occasionally a technique known as girdling was used. Girdling, a practice far more common in the South, involved cutting a horizontal channel all the way around the tree, which stopped the flow of sap, the liquid that carries food to all parts of a plant. Deprived of sap, the leaves would die and the branches eventually fell off, leaving the surrounding land dry and suitable for planting.

3.The word “suitable” in the passage is closest in meaning to

A.available

B.appropriate

C.ready

D.cleared

4.According to paragraph 2, European settlers finally started to cut down forest themselves because

A.they had discovered effective new techniques for cutting down trees

B.they wanted to create landscapes that were more like those of Europe

C.they needed to replenish their supply of wood

D.they had used up the available cleared land

5.According to paragraph 2, girdling worked by

A.splitting the tree in half vertically

B.removing all the branches from a tree

C.keeping sap from reaching the tree’s leaves and branches

D.preventing the tree from absorbing water from the ground

New Englanders, however, generally clear-cut the forest, in part because the demand for fuel wood and lumber encouraged it. The market for potash, an alkaline substance that came from burning hardwood trees, also strongly motivated farmers to cut and burn the woods. 【Used to manufacture soap, glass, and gunpowder and to bleach linens and print calicoes, potash served a range of industrial uses but at the expense of farms, which lost the nutrients that the wood ashes would otherwise have released back into the soil had they not been exported to market.】

6.The word “generally” in the passage is closest in meaning to

A.additionally

B.preferably

C.usually

D.quickly

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.Potash from wood ash was used in manufacturing many industrial products, and it was also used to restore nutrients that had been lost from farm soil.

B.The use of potash in the manufacture of a wide range of industrial products meant that farmers could make a good profit by exporting the ashes from the wood they burned.

C.Farms suffered when wood ashes were converted into potash instead of being exported to market for profit.

D.Potash had many industrial uses, but when wood ashes were for potash, farms suffered from the loss of the nutrients that would have restored to the soil.

8.According to paragraph 3, one advantage of cutting down trees rather than girding them was that cutting down trees

A.supplied marketable products

B.reduced the risk of fire

C.added alkaline substances to the soil

D.preserved nutrients in the soil

With their very existence dependent on the successful production of food, farmers had little, if any, time for removing stumps and stones. Instead, they adapted to the half-cleared fields by planting corn (maize) and grass, both grew well in such an environment. A pattern of “extensive” farming began to emerge. Rather than carefully 【tending】 arable land, engaging in crop rotation, manuring, and removing all stumps and stones—all recognized as part of proper agricultural practice in Europe—New England farmers simply exploited the soil and then forged ahead with the cleaning of new land. Cutting down trees remained hard work, but it was easier to partially clear the land, plant it, and then move on to another small plot than to constantly improve the soil on one field to the high Old World (European) standards. The settlers were too busy figuring out how to produce food rapidly to worry about efficient agricultural practices.

9.The word “tending” in the passage is closest in meaning to

A.searching for

B.cleaning

C.selecting

D.taking care of

10.Why does the author discuss the settlers’ need to “produce food rapidly”

A.To emphasize the contrast between early and later farming practices among New England farmers

B.To help explain why the settlers did not follow established European farming practices

C.To support the idea that the settlers cut down trees to clear the land only because they had no other choice

D.To argue that settlers were able to survive because of their economical practices

Early on, the settlers adopted the Native American practice of planting corn along with beans and pumpkins or squash. These plants reinforced one another, resulting in high agricultural yields. The stalks of corn facilitated the growth of beans by giving them a structure to climb. The beans replenished the nitrogen that the corn drained out of the soil, bolstering fertility. And the pumpkins were a valuable source of food in the pioneer environment. After a few seasons, however, the settlers slowly began the process of transforming New England into an image of the Old World, planting European grains such as wheat and rye alongside the maize, a crop they never abandoned, in part because it proved a more reliable source of food.

11.According to paragraph 5, which of the following best describes an agricultural practice of the settlers?

A.They abandoned European grains, which were not as productive as corn.

B.They planted certain crops close together to support and improve growth.

C.They created structures to protect and cover corn and bean

D.They planted more corn than other crops because it supplied the ...(此选项缺信息)

New England, unlike the South, did not center its economy on an export crop like tobacco. Nor were its soils as fertile as those in the mid-Atlantic area (south of New England), which by the eighteenth century was the great grain-producing region of the colonies instead. New England’s soil had a moisture content that made it especially suited for growing grass. Grass played the pivotal role in the region’s farm ecology: the grass fed cattle that, in turn, produced manure that was spread over the fields as fertilizer for growing corn and other crops. Grass and cattle thus helped to maintain soil fertility—the key to reproducing a sustainable form of farm life—by recycling nutrients back into the fields.

12.According to paragraph 6, grass particularly grew well in the New England region because of

A.the widespread practice of keeping cattle in the fields

B.the regular recycling of nutrients back into the fields

C.the amount of water in the soil

D.the fertility of the soil

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

This way of farming differed considerably from the European system.

Where would the sentence best fit?

With their very existence dependent on the successful production of food, farmers had little, if any, time for removing stumps and stones. Instead, they adapted to the half-cleared fields by planting corn (maize) and grass, both grew well in such an environment. 【】A pattern of “extensive” farming began to emerge. 【】Rather than carefully tending arable land, engaging in crop rotation, manuring, and removing all stumps and stones—all recognized as part of proper agricultural practice in Europe—New England farmers simply exploited the soil and then forged ahead with the cleaning of new land. 【】 Cutting down trees remained hard work, but it was easier to partially clear the land, plant it, and then move on to another small plot than to constantly improve the soil on one field to the high Old World (European) standards.【】The settlers were too busy figuring out how to produce food rapidly to worry about efficient agricultural practices.

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

When European colonists settled New England, they tended to farm areas already cleared by Native Americans.

A.Once the supply of suitable cleared land ran out, the settlers had to clear new land before they could plant, generally converting the trees they removed into lumber, fuel, or potash.

B.Because clearing fields took time and the need for food was pressing, farmers were forced to resort to extensive farming practices rather than follow their old European farming system.

C.The settlers developed a farm ecology that eventually made the region more productive than the South or even the mid-Atlantic area.

D.The settlers’ attempt to follow what, in Europe, was considered proper farming practices was soon abandoned as they discovered that food could be grown more efficiently in other ways.

E.After planting corn (maize) enough times to drain the excess nitrogen out of the soil, the settlers were able to grow more familiar European crops such as wheat and rye.

F.The soil was not particularly fertile, but grass grew well and fed cattle that produced manure, which in turn served as fertilizer for crops and recycled nutrients back into the soil.

Cave and Rock Art（这篇2016年8月再次考到）

Some of the earliest human art to survive consists of engraved or painted works on open-air rocks or on the floors, walls, and ceilings of caves, some of them in deep crannies. They were created during the Upper Paleolithic period (40,000 to 10,000B.C.), and the best were done by what we call the Magdalenians (from the name of a site), peoples who flourished in Europe from 18,000 to 10,000 B.C. Such works have a unity and can be described as the Magdalenian art system, the first in human history. It was also the longest, lasting for much of the total time humans have produced art.

1. According to paragraph 1, which of the following is true of the artwork of the Magdalenians?

A. Its best features were later made part of a unified art system by other people after the end of the Paleolithic period.

B. It includes the finest examples of paintings done on rocks

C. Compared to the artwork of later groups, it was produced for only a short time.

D. Its earliest forms were on open-air rocks, while its later forms were in caves.

In any history of art, then, the Magdalenian system must occupy a place of importance. Also, of all the forms of art practiced on the planet, it is the one about which we know the least. But we do possess a reasonable amount of knowledge, bearing in mind that the first cave art was only discovered in the 1860s, and it was not until 1902 that it was accepted as a fact by anthropologists and art historians. By the end of the twentieth century, there were 277 agreed examples in Europe. Unfortunately, most cave art works are extremely fragile. When a cave is opened and the conditions that enable the paintings to survive are altered, deterioration can be rapid. Thus except in places where expensive air-conditioning has been installed, caves are no longer open to the public. Even the Altamira cave in Spain, finest of them all, is now open only to small parties for brief periods. Scholars themselves find it difficult to gain admission. Some of these works are photographed, but the camera gives a poor idea of their nature and quality. Some are difficult to see anyway: the best part of Altamira has to be studied lying down. Hence inaccessibility is a real and growing obstacle to unlocking the secrets of the Magdalenian art system.

2. 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. Because cave art was not discovered until the 1860s and anthropologists and art historians did not begin studying it until 1902, we still have little knowledge of it.

B. Cave art was first discovered in the 1860s, but it was not until 1902 that anthropologists and art historians first began to understand it.

C. We know quite a bit about cave art, given that it was not discovered until the 1860s and not accepted as authentic until 1902.

D. We know a reasonable amount about cave art as a result of the efforts of anthropologists and art historians since the first discoveries in the 1860s.

3. Why does the author include the information that some cave art has been “photographed, but the camera gives a poor idea of their nature and quality”?

A. To help explain why lack of access to caves is an obstacle to understanding the Magdalenian art system.

B. To suggest that these artworks have suffered less deterioration than has sometimes been claimed

C. To argue that air-conditioning should be installed in the Altamira cave in Spain

D. To emphasize the need to view these artworks while lying down

4. According to paragraph 2, why has the public been prevented from visiting most caves that contain prehistoric art?

A. Space within caves is usually limited, so priority is given to scholars and art experts.

B. Cave containing artworks are often located in difficult-to-reach places.

C. Artworks can be damaged by environmental changes that result from opening a cave.

D. Many caves containing artworks are unsafe for the general public to enter and wander through.

However, there is some knowledge on which we can build, beginning with subject matter. Cave art portrays human hands, large numbers of animals in different activities, including various species, such as the woolly rhinoceros, that are now extinct and a few that were extinct even at the time they were painted, geometric figures, and signs. Humans are also portrayed, but these instances are rare. Next we come to methods and materials. The earliest and most rudimentary images are finger drawings in soft clay on the rock surface, the artist following the example of claw marks made by animals. Then came engraving (using a tool to cut into a material), by far the commonest method, using flakes of sharp flint and in some cases stone picks. Different types of rock, and rock formations, were used to give variety, add color, and produce depth, so that some of these engravings are akin to sculptural low reliefs (shallow sculptures carved into walls). Fine engraving is rare and late. Clay engraving on the floors has been obliterated by the feet of modern visitors, but some good examples survive.

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

A. elementary

B. puzzling

C. available

D. Revealing

6. The phrase “akin to” in the passage is closest in meaning to

A. regarded as

B. similar to

C. characteristic of

D. a result of

7. According to paragraph 3, which of the following is the least likely to the portrayed in Magdalenian cave art?

A. Geometric shapes

B. Human hands

C. Groups of human beings

D. Various species of animals

8. According to paragraph 3, which of the following statements is true of cave art?

A. The oldest known cave art was created using animal claws in soft clay.

B. No works of cave art created on floors remain today because all the examples have been ruined by the feet of modern visitors.

C. Cave engravings were later followed by prehistoric finger drawings in clay.

D. Cave engravers employed different types of rock to create variety and texture.

Finally, and most impressively, we get painting. The first colors were red, iron oxide (hematite, a form of red ochre), and black (manganese dioxide), though black from juniper or pine carbons has also been discovered. White from kaolin or mica was used occasionally. The only other colors available to Magdalenian painters were yellow and brown. However, great ingenuity was displayed by artists. At Lascaux cave we have found pestles and mortars in which colors were mixed, together with no less than 158 different mineral fragments from which the mixtures were made. There seems to have been no shortage of pigment—large lumps have been found at some sites. Shells of barnacles were used as containers. One artist employed a human skull. Cave water and the calcium it contained were used as mixers, and vegetable and animal oils as binders. The artists had primitive crayons, and they applied the paint with brush tools, though none have survived. All kinds of devices and implements were used to aid art. Important lines were preceded by dots, which were then joined up. Sometimes paint was sprayed. Stencils were used. Blowpipes made from bird bones served as tubes for applying paint. By these means, Magdalenian painters were able to produce polychrome art.

9. The word “occasionally” in the passage is closest in meaning to

A. preferably

B. skillfully

C. repeatedly

D. Sometimes

10. The word “ingenuity” in the passage is closest in meaning to

A. knowledge

B. confidence

C. patience

D. Inventiveness

11. Which of the following can be inferred from paragraph 4 about the cave water and the calcium it contained in cave water?

A. It made the cave water unsuitable for drinking.

B. It was involved in combining paint pigments.

C. It helped to bind paints to the surfaces being painted.

D. It made paint last longer.

12. Paragraph 4 discusses all of the following with regard to cave painters EXCEPT:

A. how they chose the locations of their paintings

B. what materials they used to create some of their colors

C. what techniques they used in making their creations

D. what kinds of tools they used

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

There is a potential for serious damage from the introduction of light, changes in air circulation, and the breath of visitors.

Where would the sentence best fit?

In any history of art, then, the Magdalenian system must occupy a place of importance. Alas, of all the forms of art practiced on the planet, it is the one about which we know the least. But we do possess a reasonable amount of knowledge, beaning in mind that the first cave art was only discovered in the 1860s, and it was not until 1902 that it was accepted as a fact by anthropologists and art historians. By the end of the twentieth century, there were 277 agreed examples in Europe. Unfortunately, most cave art works are extremely fragile. When a cave is opened and the conditions that enable the paintings to survive are altered, deterioration can be rapid. ◼ Thus except in places where expensive air-conditioning has been installed, caves are no longer open to the public. ◼ Even the Altamira cave in Spain, finest of them all, is now open only to small parties for brief periods. ◼ Scholars themselves find it difficult to gain admission. Some of these works are photographed, but the camera gives a poor idea of their nature and quality. ◼ Some are difficult to see anyway: the best part of Altamira has to be studied lying down. Hence inaccessibility is a real and growing obstacle to unlocking the secrets of the Magdalenian art system.

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

Magdalenian artworks were created during the Upper Paleolithic period.

A. Examples of Magdalenian art are found in all parts of Europe, and there is evidence that artists in neighboring regions were influenced by the Magdalenian system.

B. Magdalenian artists created a variety of images, including geometric figures, and varied the type of rock chosen for engravings to produce different artistic effects.

C. A unifying aspect of the Magdalenian system was the tendency of artists to blend multiple colors together rather than to use colors individually.

D. Scholars know a fair amount about Magdalenian cave art, but the need to preserve the fragile works has prevented scholars from studying them as thoroughly as they would like.

E. Magdalenian painters were able to create impressive, multicolored artworks by using minerals and plant and animal materials to make and mix colors.

F. Some Magdalenian engravings and paintings are so sophisticated in design and skillfully executed that it was once doubted that prehistoric people created them.

Photography and the Pictorial Weeklies

Photography and the Pictorial Weeklies答案: C C B D A; B D D B D; C A A ACD

Farming New England in Colonial Times:

Farming New England in Colonial Times答案: C C B D C C D A D B B C B ABF

Cave and Rock Art

Cave and Rock Art答案：B C A C A; B C D D D; B A A BDE

第8套

Attempts at Determining Earth's Age（17年4月23日考过）

Since the dawn of civilization, people have been curious about the age of Earth. In addition, we have not been satisfied in being able to state merely the relative geologic age of a rock or fossil. Human curiosity demands that we know actual age in years.

Geologists working during the nineteenth century understood that if they were to discover the actual age of Earth or of particular rock bodies, they would have to concentrate on natural processes that continue at a constant rate and that also leave some sort of tangible record in the rocks. Evolution is one such process, and geologist Charles Lyell (1797-1875) recognized this. By comparing the amount of evolution exhibited by marine mollusks during the Tertiary Period with the amount that had occurred since then, Lyell estimated that 80 million years had elapsed since the beginning of the Tertiary Period. He came astonishingly close to the mark, since it was actually about 65 million years. However, for older sequences of evolutionary development, estimates based on rates of evolution were difficult, and not only because of missing parts in the fossil record. Rates of evolution for many orders of plants and animals were not well understood.

1.The word tangible in the passage is closest in meaning to

A. physical

B. related

C. significant

D. helpful

2..It can be inferred from paragraph 2 that Charles Lyell based his study of the marine mollusk fossils on which of the following assumptions

A. The Tertiary Period was separated into divisions of time that were equal in length.

B. Mollusks lived under rocks in the sea during the Tertiary period.

C. Evolution of mollusks proceeded at a uniform rate over time.

D. Mollusks have evolved less rapidly with the passing of time.

3..The word sequences in the passage is closest in meaning to

A. observations

B. senses

C. series

D. categories

4..According to paragraph 2, Lyell's strategy for estimating geologic dates was not very accurate for periods before the Tertiary Period partly because

A. marine mollusks did not evolve until the Tertiary Period

B. fossil records of the very distant past are incomplete

C. there was not much agreement about how to identify or categorize earlier eras

D. the duration of previous geologic periods was difficult to determine

In another 【attempt】, geologists reasoned that if rates of deposition could be determined for sedimentary rocks, they might be able to estimate the time required for deposition of a given thickness of strata, or rock layers. Similar reasoning suggested that one could estimate total elapsed geologic time by dividing the average thickness of sediment transported annually to the oceans into the total thickness of sedimentary rock that had ever been deposited in the past. Unfortunately, such estimates did not adequately account for past differences in rates of sedimentation or losses to the total section of strata during episodes of erosion. Also, some very ancient sediments were no longer recognizable, having been converted to igneous and metamorphic rocks in the course of mountain building. Estimates of Earth's total age based on sedimentation rates ranged from as little as a million to over a billion years.

5..The phrase another attempt in the passage refers to

A. trying to understand the fossil record

B. trying to determine the evolutionary rate of marine mollusks

C. trying to understand natural processes

D. trying to determine Earth's actual age

6..The word converted in the passage is closest in meaning to

A. added

B. changed

C. restored

D. reduced

7..According to paragraph 3, all of the following were problems with the calculation of Earth's age using the study of sedimentary rocks EXCEPT

A. the inconsistency of sedimentation rates over time

B. the effect of geologic processes on sedimentary rock

C. the expansion of some sedimentary rocks due to Earth's internal heat

D. the loss of an unknown number of sedimentary layers due to erosion

Yet another scheme for approximating Earth's age had been proposed in 1715 by Sir Edmund Halley (1656-1742), whose name we associate with the famous comet. Halley surmised that the ocean formed soon after the origin of the planet and therefore would be only slightly younger than the age of the solid Earth. He reasoned that the original ocean was not salty and that subsequently salt derived from the weathering of rocks was brought to the sea by streams. Thus, if one knew the total amount of salt dissolved in the ocean and the amount added each year, it might be possible to calculate the ocean's age. In 1899, Irish geologist John Joly (1857-1933) attempted the calculation. From information provided by gauges placed at the mouths of streams, Joly was able to estimate the annual increment of salt to the oceans. Then, knowing the salinity of ocean water and the approximate volume of water, he calculated the amount of salt already held in solution in the oceans. An estimate of the age of the ocean was obtained by dividing the total salt in the ocean by the rate of salt added each year. Beginning with essentially nonsaline oceans, it would have taken about 90 million years for the oceans to reach their present salinity, according to Joly. The figure, however, was off the currently accepted mark of 4.54 billion by a factor of 50, largely because there was no way to account accurately for recycled salt and salt incorporated into clay minerals deposited on the sea floors. Even though in error, Joly's calculations clearly supported those geologists who insisted on an age for Earth far in excess of a few million years. The belief in Earth's immense antiquity was also supported by Darwin, Huxley, and other evolutionary biologists, who saw the need for time in the hundreds of millions of years to accomplish the organic evolution apparent in the fossil record.

8..The word approximating in the passage is closest in meaning to

A. thinking about

B. researching

C. estimating

D. demonstrating

9..The word subsequently in the passage is closest in meaning to

A. later

B. furthermore

C. evidently

D. accidentally

10..According to paragraph 4, John Joly's calculations were founded on all of the following EXCEPT

A. knowing how salty the ocean water is

B. estimating how much salt enters the ocean each year

C. accounting for the amount of salt that is recycled

D. figuring the volume of water contained in the ocean

11..According to paragraph 4, in which of the following ways could Joly's estimate of Earth's age be considered significant

A. It proved that Halley's idea about the age of the ocean was fairly accurate.

B. It indicated that Earth was much older than some scientists had claimed.

C. It was favored by the majority of scientists at the end of the nineteenth century.

D. It was the basis for much modern research into the salinity of the ocean.

12..The author mentions Darwin, Huxley, and other evolutionary biologists in order to

A. provide evidence that Joly's calculations inspired scientists working on other lines of scientific inquiry

B. support the claim that all of the leading scientists of the time believed that Earth was just over 90 million years old

C. argue that Joly's calculations would have been more exact if he had collaborated with experts in other fields

D. provide examples of scientists who believed the age of Earth to be greater than just a few million years, like Joly, in order to account for their findings

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

More fundamentally, Lyell's evolutionary approach is intrinsically limited because Earth existed long before life and evolution began.

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

Geologists working during the nineteenth century understood that if they were to discover the actual age of Earth or of particular rock bodies, they would have to concentrate on natural processes that continue at a constant rate and that also leave some sort of tangible record in the rocks. Evolution is one such process, and geologist Charles Lyell (1797-1875) recognized this. 【】By comparing the amount of evolution exhibited by marine mollusks during the Tertiary Period with the amount that had occurred since then, Lyell estimated that 80 million years had elapsed since the beginning of the Tertiary Period. He came astonishingly close to the mark, since it was actually about 65 million years. 【】However, for older sequences of evolutionary development, estimates based on rates of evolution were difficult, and not only because of missing parts in the fossil record.【】Rates of evolution for many orders of plants and animals were not well understood. 【】

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. It was not until the nineteenth century that attempts were made to determine the relative geologic age of rocks and fossils.

B. In the nineteenth century, scientists made a number of important, but unsuccessful, attempts to calculate Earth's age from the record of various natural processes.

C. Charles Lyell made a good estimate of the age of the Tertiary Period from the fossil record, but his method could not be extended to earlier geological periods.

D. Darwin and Huxley supported the accuracy of John Joly's calculation of Earth's age because it agreed with their view of how long evolution had been in progress.

E. Attempts were made to calculate Earth's age from the thickness of surviving sedimentary rock and from the current level of the oceans' salinity.

F. Earth's true age, 4.54 billion years, was determined by combining data from the geological and fossil records.

The Upper Paleolithic Revolution

The transition from the historical period known as the Middle Paleolithic to the Upper Paleolithic around 40 to 35 thousand years ago (kya) represents one of the major developments in the prehistory of humankind.【A】 The basic features of this transition include more versatile stone implements and the use of antler, bone, and ivory for tools, figurative art, music, and personal decoration.【B】 So striking were the strides in human achievement during this period that it is sometimes referred to as the Upper Paleolithic Revolution.【C】

【D】Until recently it had been argued that the Upper Paleolithic Revolution was an archaeological phenomenon found only in Eurasia. The apparent lack of equivalent evidence in other regions suggested that a fundamental change had occurred in human intellectual development around 40 kya in Europe. The recent discovery in the Blombos Cave in South Africa of a block of decorated ochre and then sets of shell beads, dated to around 77 kya, opened up the debate. This supports other evidence of more versatile stone implements and bone tools found in Africa from the same period. Now the Upper Paleolithic Revolution is being seen as simply the most visible example of the evolving process of modern human behavior that had been developing over a much longer timescale.

1..Why does the author mention a a block of decorated ochre and sets of shell beads

A. To help make the point that archaeologists regard artistic creations as the highest kind of human achievement

B. To illustrate how the discovery of certain objects makes the discovery of certain other objects more likely

C. To give some of the evidence that has changed archaeologists' thinking about human intellectual development

To help explain why archaeologists have been slow to recognize the importance of certain evidence available to them

2..How far back in time do the origins of the more versatile stone implements and bone tools found in Africa go

A. To around 40 kya

B. To around 77 kya

C. To the time of the Upper Paleolithic Revolution

D. To a time before modern human behavior had begun to evolve

This raises two further questions. First, what was happening to the human cognitive process during the 40,000 years or so between the creations in the Blombos Cave and the flourishing of human creativity in Europe around 35 kya, and second, was climate change a component Climate change is associated with the sudden occurrence of creative activity in Europe at the beginning of the Upper Paleolithic.

3..The word equivalent in the passage is closest in meaning to

A. comprehensible

B. concrete

C. comparable

D. widely debated

4..According to paragraph 3, what do archaeologists want to know about the climate during the 40,000 years between around 75 kya and 35 kya

A. Whether it was a reason that humans lived in caves

B. Whether it was stable throughout that period

C. Whether it changed in similar ways in Africa and in Europe

D. Whether it was a factor in how the human cognitive process developed

The question of whether the sudden transition seen in Europe was built on earlier developments in Africa has been addressed at length by anthropologists Sally McBrearty and Alison Brooks. They argue that the whole issue of the Upper Paleolithic Revolution stems from a profound Eurocentric bias and a failure to appreciate the depth and breadth of the African archaeological record. In fact, many of the components of this revolution are found earlier in the African Middle Paleolithic tens of thousands of years before they appeared in Europe. These features include blade and microlithic technology, bone tools, increased geographic range, specialized hunting, exploitation of aquatic resources, long-distance exchange networks, systematic processing and use of pigment, and art and decoration. These items do not occur suddenly together as predicted by the revolutionary model, but at sites that are widely separated in space and time. This suggests a gradual assembling of the package of modern human behaviors in Africa and its later export to other regions of the Old World.

5..According to paragraph 4, anthropologists McBrearty and Brooks argue that archaeologists' traditional understanding of the Upper Paleolithic Revolution was flawed because

A. they underestimated available African archaeological evidence

B. the archaeological evidence available to them contained errors

C. they could not distinguish artistic creations from objects meant for practical use

D. they based their judgments on the limited archaeological record available at that time

6..Anthropologists McBrearty and Brooks consider such components of the Upper Paleolithic Revolution as blade and microlithic technology to have

A. first emerged in the Middle Paleolithic Period, in Africa rather than in Europe

B. emerged in Europe independently in many different places at different times

C. first emerged in Europe, then to have been further developed in Africa

D. been part of a similarly sudden, but earlier, cultural revolution in Africa

The extraordinary range of rock art in Australia adds great weight to the idea that artistic creativity was part and parcel of the intellectual capacity of modern humans that migrated out of Africa around 70 kya. 【The fact that these people almost certainly arrived in Australia before 60 kya and were, in any case, completely isolated from any evolutionary events that may have occurred in Europe around 40 kya makes this argument compelling.】

7.The word exploitation in the passage is closest in meaning to

A. maintenance

B. discovery

C. transference

D. use

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

A. The idea that in modern humans creativity and intellect developed together is supported by ancient rock art ranging from Australia to Africa.

B. Australian rock art strongly suggests that modern humans that migrated out of Africa around 70 kya already possessed artistic creativity.

C. Since Australian rock art dated to around 70 kya shows that Australians possessed artistic creativity, Africans of that period probably possessed it, too.

D. The wide range of Australian rock art strongly suggests that intellectual capacity and artistic creativity were connected as early as 70 kya.

9..What role does paragraph 5 play in relation to paragraph 4

A. It accepts the arguments made in paragraph 4 but asserts that the supporting examples given are not the best ones available.

B. It shows that the conclusion reached in paragraph 4 is almost certainly false.

C. It presents additional reasons for accepting the position argued for in paragraph 4.

D. It describes a possible alternative to the position developed in paragraph 4.

The consequence of this analysis is that the question of the sudden emergence of creative activity that appears to constitute the Upper Paleolithic Revolution falls to the ground. The obvious explanation is that the gap between African developments and the subsequent better-known European events is a matter of the limitations of the archaeological record. This does not altogether cover the question of why there was the sudden flowering of creativity at the beginning of the Upper Paleolithic in Europe. It may be that earlier creative efforts have either been lost in or have yet to emerge from the mists of time. Recent finds of decorative pierced shells dating from 43 kya or even earlier in caves in parts of western Asia near Europe may be examples of a process extending the evidence back in time. The creative flowering may also be a result of the climatic conditions at the time that governed the movement of modern humans into Europe. Following a period of extreme cold around 39 kya, a period of warming around 35 kya rendered the region more hospitable. As the ancestors of today's Europeans moved into a largely depopulated region, their presence in the archaeological record appeared revolutionary.

10..The word altogether in the passage is closest in meaning to

A. even

B. necessarily

C. merely

D. fully

11..The fact that decorative pierced shells were recently found in caves in parts of western Asia near Europe suggests that

A. there may be evidence of earlier creative activity in Europe that has not yet been discovered

B. the creative flowering may have originated in Asia, not in Africa

C. there was really an Upper Paleolithic Revolution but it did not happen in Europe

D. the people who used the decorative shells were unrelated to the people who inhabited Europe during the Upper Paleolithic

12..According to paragraph 6, the apparent sudden flowering of creativity in Europe might be related to a change of climate in which of the following ways

A. People became very creative in order to survive climatic extremes.

B. As the climate became warmer, ancient European populations moved around much less.

C. Improving climatic conditions drew substantial human migration into Europe.

D. Climatic conditions became more favorable to preserving the archaeological record.

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

The adoption of these new materials and practices moved early human culture forward at a rapid pace.

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

The transition from the historical period known as the Middle Paleolithic to the Upper Paleolithic around 40 to 35 thousand years ago (kya) represents one of the major developments in the prehistory of humankind.【A】 The basic features of this transition include more versatile stone implements and the use of antler, bone, and ivory for tools, figurative art, music, and personal decoration.【B】 So striking were the strides in human achievement during this period that it is sometimes referred to as the Upper Paleolithic Revolution.【C】

【D】Until recently it had been argued that the Upper Paleolithic Revolution was an archaeological phenomenon found only in Eurasia.....

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. Recent evidence that in Africa the transition from the Middle Paleolithic to the Upper Paleolithic was also marked by enormous progress strengthens the European evidence.

B. The idea that events in Europe around 40 kya mark an advance in basic human capabilities has been discredited by African and Australian evidence that points to a much earlier date.

C. Evidence suggests that the striking set of human accomplishments that emerged in Europe around 40 kya was built on earlier development in Africa.

D. Europe was the center of the Upper Paleolithic Revolution not so much because individual innovations originated there, but because these innovations were creatively fitted together there.

E. The people who settled Australia were, without a doubt, modern humans whose origins were in Africa, but whether they reached Australia before 60 kya has not been definitively established.

F. It is still unclear why the entire package of modern human behaviors seems to show up in the European archaeological record so suddenly, although various answers have been proposed.

Two Kinds of Lizards

Lizards can be divided into two types according to the way they look for food: sit-and-wait foragers and active foragers. Sit-and-wait lizards normally remain in one spot from which they can survey a broad area. These motionless lizards detect the movement of an insect visually and capture it with a quick run from their observation site. Sit-and-wait lizards may be most successful in detecting and capturing relatively large insects like beetles and grasshoppers. Active foragers, on the other hand, spend most of their time on the ground surface, moving steadily and poking their heads under fallen leaves and into crevices in the ground. These lizards apparently rely largely on chemical cues to detect insects, and they probably seek out local concentrations of prey such as termites. Active foragers appear to eat more insects than do lizards that are sit-and-wait predators. Thus, the different foraging behaviors of lizards lead to differences in their diets, even when the two kinds of lizards occur in the same habitat.

1..The word steadily in the passage is closest in meaning to

A. slowly

B. at an unvarying rate

C. cautiously

D. without making noise

2..The word concentrations in the passage is closest in meaning to

A. varieties

B. dense groupings

C. hidden traces

D. shelters

3..According to paragraph 1, sit-and-wait foragers and active foragers are different in all of the following EXCEPT

A. the methods that they primarily use to detect insects

B. the number of insects they typically eat

C. the habitats in which they can be found

D. the amount of time they spend moving

4..According to paragraph 1, compared to the insects typically consumed by sit-and-wait lizards, insects typically consumed by active lizards

A. move more quickly

B. are generally found in smaller groups

C. are often hidden from view

D. spend more time on the surface of the ground

The different foraging modes also have different consequences for lizards regarding their exposure to predators. A lizard that spends 99 percent of its time resting motionless is relatively inconspicuous, whereas a lizard that spends most of its time moving is easily seen. Sit-and-wait lizards are probably most likely to be discovered and captured by predators that are active searchers, whereas widely foraging lizards are likely to be caught by sit-and-wait predators. Because of this difference, foraging modes may alternate at successive levels in the food chain: insects that move about may be captured by lizards that are sit-and-wait foragers, and those lizards may be eaten by active predators, whereas insects that are sedentary are more likely to be discovered by lizards that are active foragers, and those lizards may be caught by sit-and-wait predators.

5..In paragraph 2, why does the author contrast the visibility of lizards that remain motionless most of the time with the visibility of lizards that move most of the time

A. To show that it is possible for lizards to alternate their foraging modes at successive levels in the food chain

B. To suggest that sit-and-wait lizards are more likely than active lizards to be attacked by predators

C. To explain why sit-and-wait lizards are more successful than active lizards at preying on insects

D. To explain how a lizard's foraging strategy affects the type of predator likely to attack it

The body forms of sit-and-wait foragers may reflect selective pressures different from those that act on active foragers.【A】 Sit-and-wait lizards are often stout bodied, short tailed, and colored to match their background. 【B】Many of these species have patterns of different-colored blotches that probably obscure the outlines of the lizard's body as it rests motionless on a rock or a tree trunk.【C】Active foragers are usually slim and elongated with long tails, and they often have patterns of stripes that may produce optical illusions as they move.【D】However, one predator-avoidance mechanism, the ability to break off their tails when they are seized by predators, does not differ among lizards with different foraging modes.

6..The word reflect in the passage is closest in meaning to

A. indicate

B. create

C. resist

D. require

7..The word obscure in the passage is closest in meaning to

A. change

B. hide

C. fill

D. expand

8..Paragraph 3 supports which of the following ideas about active-forager lizards

A. They are less likely to break off their tails when seized by predators than sit-and-wait lizards are.

B. They tend to vary widely in their individual colors.

C. They lack well-developed mechanisms for avoiding predators.

D. They may be easier to identify when they are not moving than when they are moving.

What physiological characteristics are necessary to support different foraging modes? The energy requirements of a quick motion that lasts for only a second or two are quite different from those of locomotion that is sustained nearly continuously for several hours. Sit-and-wait lizards and active foragers differ in their relative emphasis on the two ways that most animals use adenosine triphosphate (ATP)a molecule that transports energy within cells for activity and in how long that activity can be sustained. Sit-and-wait lizards move in brief spurts, and they rely largely on anaerobic metabolism to sustain their movements, namely the kind of metabolism that does not use oxygen. Anaerobic metabolism uses glycogen stored in the muscles and produces lactic acid as its end product. It is a way to synthesize ATP quickly (because the glycogen is already in the muscles), but it is not good for sustained activity because the glycogen is quickly exhausted and lactic acid inhibits cellular metabolism. Lizards that rely on anaerobic metabolism can make brief sprints but become exhausted when they are forced to run continuously. In contrast, aerobic metabolism uses glucose that is carried to the muscles by the circulatory system, and it produces carbon dioxide and water as end products. Aerobic exercise can continue for long periods because the circulatory system brings more glucose and carries carbon dioxide away. As a result, active foragers can sustain activity for long periods without exhaustion. Active species of lizards have larger hearts and more red blood cells in their blood than do sit-and-wait species. As a result, each beat of the heart pumps more blood, and that blood carries more oxygen to the tissues of an active species than a sit-and-wait species.

9..According to paragraph 4, compared with active lizards, the movements of sit-and-wait lizards are

A. more sudden

B. more sustained

C. more predictable

D. more frequent

10..According to paragraph 4, all of the following are true about anaerobic metabolism in lizards EXCEPT:

A. It uses the glycogen in the muscles of lizards.

B. It produces lactic acid that interferes with metabolism within the cells of lizards.

C. It allows lizards to maintain their foraging activity over a long period of time.

D. It allows lizards to run fast for short periods of time.

11..Which of the following can be inferred from paragraph 4 about sit-and-wait lizards

A. They have less glycogen than active-forager lizards.

B. They have highly variable heart rates.

C. They have metabolic systems that do not depend on the efficient removal of carbon dioxide.

D. They synthesize adenosine triphosphate continuously.

12..According to paragraph 4, how are active-foraging lizards and sit-and-wait lizards different from each other

A. Sit-and-wait lizards tend to have more red blood cells in their blood than active-foraging lizards do.

B. Active-foraging lizards' blood carries less oxygen to the tissues than sit-and-wait foraging lizards' blood does.

C. Sit-and-wait lizards carry out cellular metabolism more efficiently than active-foraging lizards do.

D. Active-foraging lizards tend to have larger hearts than sit-and-wait lizards do.

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

Such visual effects make it harder for predators to catch these moving targets.

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

The body forms of sit-and-wait foragers may reflect selective pressures different from those that act on active foragers.【A】 Sit-and-wait lizards are often stout bodied, short tailed, and colored to match their background. 【B】Many of these species have patterns of different-colored blotches that probably obscure the outlines of the lizard's body as it rests motionless on a rock or a tree trunk.【C】Active foragers are usually slim and elongated with long tails, and they often have patterns of stripes that may produce optical illusions as they move.【D】However, one predator-avoidance mechanism, the ability to break off their tails when they are seized by predators, does not differ among lizards with different foraging modes.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. Sit-and-wait lizards use brief spurts of energy to forage, while the movements of active lizards are more sustained.

B. Lizards that are active foragers are able to detect insects even when those insects are stationary, but sit-and-wait lizards are able to detect only moving insects.

C. Sit-and-wait lizards tend to have predators that are active, while active lizards tend to have sit-and-wait predators.

D. Sit-and-wait lizards have less need for bodies that match their environment than active lizards do because of the ease with which they can break off their tails to escape from predators.

E. The body forms and metabolic functions of the two types of lizards differ in ways that support the requirements of their different foraging behaviors.

F. Sit-and-wait lizards derive energy for movement from anaerobic metabolism alone, while active lizards rely almost equally on aerobic and anaerobic metabolisms.

答案

Attempts at Determining Earth's Age

Attempts at Determining Earth's Age答案: A C C B D B C C A C B D D BCE

The Upper Paleolithic Revolution

The Upper Paleolithic Revolution答案：C B C D A A D B C D C C B BCF

Two Kinds of Lizards

Two Kinds of Lizards答案：B B C C D; A B D A C; C D D ACE

第9套

The Western Roman Empire in the Fifth Century

Shortly after the death of emperor Theodosius in 395 A.D., the Roman Empire was permanently divided into Eastern and Western empires. By the fifth century A.D., the power of the Western Roman Empire had declined considerably, though the Eastern Roman Empire centered in Byzantium continued to flourish. Various problems contributed to this undermining of the West.

1. The word unfavorable in the passage is closest in meaning to

A. negative

B. uncontrollable

C. unexpected

D. long lasting

The accessions of Arcadius and Honorius, sons of Theodosius, as emperors in the East and West, respectively, illustrate the unfortunate pattern of child heirs that had unfavorable effects for both empires. When Arcadius died in 408, he was succeeded by his seven-year-old son, Theodosius II. Reigning until 423, Honorius was succeeded by his nephew Valentinian III, who was only five. Because of their young ages,【Theodosius' sons and grandsons could not rule without older advisors and supervising regents upon whom they naturally became dependent and from whom they were unable to break away after reaching maturity.】As powerful individuals vied for influence and dominance at court, the general welfare was often sacrificed to private rivalries and ambitions. Moreover, it was the women of the dynasty who were the more capable and interesting characters. Holding the keys to succession through birth and inheritance, they became active players in the political arena.

2. According to paragraph 2, which of the following was one result of the pattern of rule by child emperors

A. The common people lost respect for the position of emperor.

B. Regents and advisors attempted to put an end to traditional rivalries for dominance within the court.

C. Women within the dynasty gained increased influence and power.

D. Traditional rules of succession by inheritance were changed.

3. 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.

【Theodosius' sons and grandsons could not rule without older advisors and supervising regents upon whom they naturally became dependent and from whom they were unable to break away after reaching maturity.】

A. As young rulers, the sons and grandsons of Theodosius necessarily depended on older advisors, and as adults, they were unable to rule independently of these advisors.

B. The sons and grandsons of Theodosius were too young when they came to power to rule without the assistance of older advisors.

C. On reaching maturity, the sons and grandsons of Theodosius attempted to break away from the older officials who had advised them since childhood.

D. Because the sons and grandsons of Theodosius were young when they became rulers, older advisors were able to prevent them from breaking away.

Compared with the East, however, the West faced a greater number of external threats along more permeable frontiers. Whereas the East could pursue war and diplomacy more effectively with their enemies on the long eastern frontier, the West was exposed to the more volatile tribal Germanic peoples on a frontier that stretched along the Rhine and Danube rivers for 1,000 miles. The East, however, only had to guard the last 500 miles of the Danube. In addition, the East had many more human and material resources with which to pursue its military and diplomatic objectives. The East also had a more deeply rooted unity in the Greek culture of the numerous Greek and Near Eastern cities that Rome had inherited from earlier Grecian empires. Latin culture had not achieved comparable penetration of the less urbanized West outside of Italy. The penetration of Germanic culture from the north had been so extensive along the permeable Rhine-Danube frontier that it was often difficult to distinguish between barbarians (speakers of German and other languages unrelated to Latin) and Romans in those regions by the fifth century anyway.

4. In describing the frontiers of the Western Empire as more permeable the author means that these frontiers

A. had more places where crossings could occur

B. were more distant from the center

C. were more likely to be changed

D. were more poorly equipped

5. The word pursue in the passage is closest in meaning to

A. expand

B. engage in

C. control

D. avoid

6. The word comparable in the passage is closest in meaning to

A. similar

B. desirable

C. necessary

D. noticeable

7. Which of the following is NOT identified in paragraph 3 as a factor contributing to the greater stability and success of the Eastern empire

A shorter border subject to invasion by Germanic tribes

B. Greater cultural unity among the inhabitants

C. More resources available for achieving political goals

D. Lower population densities outside of urban areas

8. In paragraph 3, why does the author discuss the Germanic culture

A. To compare the less urbanized West outside of Italy to the more urbanized East

B.To explain why Roman military and political objectives necessarily changed in the fifth century

C. To emphasize that the Romans had more of a cultural disadvantage in the West than in the East

D. To explain why there were as many speakers of German as there were Romans on the western frontier

One of the most outstanding features at the beginning of this period was the prominence of Germanic generals in the high command of the Roman Imperial army. The trend became significant, and several practical reasons can explain it. The foremost probably was the sheer need for military manpower that made it attractive to recruit bands of Germanic peoples for the armies, which, in turn, gave chieftains and warlords the opportunity to gain Imperial favor and advance in rank. Second, one way to turn Germanic chieftains from potential enemies into loyal supporters was to offer them a good position in the Roman military. Third, although Theodosius had risen to power as a military leader, he was also a cultured aristocrat and preferred to emphasize the civilian role of the emperor and to rely for protection on Germanic generals whose loyalties were primarily to him, their patron.

9. Which of the following is NOT identified in paragraph 4 as a reason the practice arose of making Germanic chieftains generals in the Roman high command

A. It helped reduce the number of possible enemies against the empire.

B. It helped make it possible to maintain an imperial military force of sufficient size.

C. It was cheaper than recruiting and training Roman generals.

D. It gave Theodosius confidence that his generals would remain loyal while he focused on other matters.

10. According to paragraph 4, by becoming generals in the Roman army, Germanic chieftains were given a chance to

A. obtain benefits from the emperor

B. influence Roman civilian life

C. help shape military policy

D. attract Germanic recruits into the Roman army

Unfortunately, the high positions achieved by Germanic officers often aroused the jealousy and hostility of high-ranking Roman military and civilian officials. Such positions also gave their Germanic holders a chance to act on both personal and tribal animosities in the arena of Imperial politics. Internal Roman rivalries and power struggles aggravated the situation. Rival factional leaders often granted Imperial titles and conceded territory to one Germanic leader or another in return for help against fellow Romans. While the Romans were thus distracted by internal conflict, other tribes seized the opportunity to cross into Roman territory unopposed. When the Romans could not dislodge them, peace was bought with further titles and territorial concessions as allies. In the midst of it all, alliances and coalitions between Roman emperors or powerful commanders and various tribes or tribal kings were made, unmade, and remade so often that it is nearly impossible to follow their course. Accordingly, all of these situations proved dangerous to the peace and safety of the West.

11. Which of the following is identified in paragraph 5 as a negative consequence of making Germanic chieftains high-ranking officers in the Roman army

A. Romans no longer sought achievement through the military.

B. Germanic generals sometimes used their military power to advance their own and their tribes' interests.

C. Germanic soldiers focused on achieving imperial titles rather than military success.

D. Greater divisions developed between the Western Empire and the Eastern Empire, which lacked military leadership.

12. According to paragraph 5, what is one way that internal conflict in Rome endangered the peace and safety of the West

A. The conflict made it more difficult to make peace through the process of granting imperial titles and territorial concessions.

B. The conflict made it easier for invaders to cross the frontier and enter Roman territory.

C. The conflict discouraged Roman leaders from creating alliances and coalitions with Germanic tribes.

D. The conflict made it nearly impossible to track the activities of enemy tribes outside Roman territory.

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

Once within Roman borders, they proved difficult to remove.

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

Unfortunately, the high positions achieved by Germanic officers often aroused the jealousy and hostility of high-ranking Roman military and civilian officials. Such positions also gave their Germanic holders a chance to act on both personal and tribal animosities in the arena of Imperial politics. Internal Roman rivalries and power struggles aggravated the situation. Rival factional leaders often granted Imperial titles and conceded territory to one Germanic leader or another in return for help against fellow Romans. While the Romans were thus distracted by internal conflict, other tribes seized the opportunity to cross into Roman territory unopposed. 【A】When the Romans could not dislodge them, peace was bought with further titles and territorial concessions as allies. 【B】In the midst of it all, alliances and coalitions between Roman emperors or powerful commanders and various tribes or tribal kings were made, unmade, and remade so often that it is nearly impossible to follow their course. 【C】Accordingly, all of these situations proved dangerous to the peace and safety of the West. 【D】

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. The division of the Roman Empire into two parts was particularly damaging for the Western Empire because it relied on the Eastern Empire for economic support.

B. The heirs of Theodosius came to the throne as young children, allowing them to be dominated by advisors who competed for influence at the expense of the empire's welfare.

C. Western emperors after Theodosius were unable to emphasize their civilian role because of their need to rely on the protection of Germanic generals loyal to them.

D. Compared to the Eastern Empire, the Western Empire had many disadvantages, including more foreign enemies and fewer material and human resources.

E. Resentment against Germanic chieftains achieving high rank in the Roman military and factionalism among Roman leaders were among the causes of the period's considerable instability.

F. As the resources needed to secure Rome's borders increased, serious conflicts developed among Roman leaders over how best to protect Roman territory against invading tribes.

Features of Tropical Mammals

There are several important features of tropical mammals and their habitats that differentiate them from temperate-zone mammals. First, tropical mammals face different environmental stresses than do temperate-zone mammals, and they respond to stresses in different ways. Many temperate-zone mammals, of course, must endure extreme variation within a year; from cold winters with snow and low food supplies to hot summers with dry weather and abundant food. Many mammals respond with hibernation, staying more or less dormant for several months until conditions improve. 【Tropical mammals, except in the high-altitude mountains, do not encounter such extreme annual changes, but they do face dry seasons, up to five months long, that sometimes severely reduce food supplies.】For some surprising reasons, they cannot alleviate this stress by hibernating, waiting for the rainy season to arrive with its increased food supplies. When a mammal in Canada or Alaska hibernates, many of its predators leave the area. This is not the case in the tropics. A mammal sleeping away the dry season in a burrow would be easy prey to snakes and other predators. Moreover, a big danger to sleeping mammals would be army ants. These voracious insects are very common in the tropics and would quickly eat a sleeping mouse or squirrel. Also, external parasites, such as ticks and mites, which are inactive in extreme cold, would continue to be very active on sleeping tropical mammals, sucking blood and doing considerable damage. Last, the great energy reserves needed to be able to sleep for an extended period through warm weather may be more than any mammal can physically accumulate. Therefore, tropical mammals need to stay active throughout the year. One way they counter the dry season's reduction in their normal foods is to switch food types seasonally. For instance, some rodents that eat mostly insects during the rainy season switch to seeds during the dry season; some bats that feed on insects switch to dry-season fruits.

1. The word extreme in the passage is closest in meaning to

A. great

B. repeated

C. unusual

D. constant

1. 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.

【Tropical mammals, except in the high-altitude mountains, do not encounter such extreme annual changes, but they do face dry seasons, up to five months long, that sometimes severely reduce food supplies.】

A. Most tropical mammals do not experience extreme temperature changes but can suffer severe food losses from long dry seasons.

B. Tropical mammals in high-altitude mountains encounter more severe food shortages than other tropical mammals.

C. Dry seasons up to five months long cause as much damage to food resources of tropical mammals as extreme annual changes.

D. Dry seasons do not severely reduce the food supplies of tropical mammals every year but they do occur sometimes.

3. According to paragraph 1, mammals in the tropics encounter extreme temperature variations in which of the following situations

A. During hot summers

B. During the dry season

C. In high-altitude mountains

D. During the rainy season

4. According to paragraph 1, a tropical mammal hibernating throughout the dry season would encounter all of the following difficulties EXCEPT:

A. It would be easy prey for predators such as snakes.

B. It would not be able to maintain a steady body temperature.

C. It might be attacked by army ants.

D. It could not accumulate sufficient energy reserves.

The abundance of tropical fruit brings up another interesting difference between temperate and tropical mammals: a surprising number of tropical mammals eat a lot of fruit, even among the carnivore group, which, as its name implies, should be eating meat. All the carnivores in Brazil, save pumas, jaguars, and otters, are known to eat fruit on occasion. Upon reflection, however, it makes sense that these mammals consume fruit. Fruit is very abundant in the tropics, available throughout much of the year, and, at least when it is ripe, easily digested by mammalian digestive systems. A consequence of such frugivory (fruit eating) is that many mammals have become, together with frugivorous birds, major dispersal agents of fruit seeds, which they spit out or which travel unharmed through their digestive tracts to be deposited in feces far from the mother tree. Some biologists believe that, even though the carnivores plainly are specialized for hunting down, killing, and eating animal prey, it is likely that fruit has always been a part of their diet.

5. The phrase Upon reflection in the passage is closest in meaning to

A. For this reason

B. After consideration

C. Most importantly

D. In general

6. Paragraph 2 indicates which of the following about fruit trees in the tropics

A. They have been the plants most studied by biologists in the tropics.

B. They don't need to grow much before they begin to produce fruit that tropical animals can eat.

C. They can spread to areas far from the mother tree, in part because of the eating habits of some carnivores.

D. They have become the main source of food for pumas, jaguars, and otters.

Finally, there are some differences in the kinds of animals inhabiting tropical and temperate regions. For instance, in tropical regions there are few social rodents like beavers and prairie dogs and very few rabbit species. On the other hand, some groups occur solely in the tropics and do extremely well there. There are about 75 to 100 species of New World monkeys (depending on which primate specialist you consult), all of which occur in tropical areas. Arboreal (tree-living) mammals such as monkeys and sloths are plentiful in tropical forests, probably because there is a rich, resource-filled, dense canopy to occupy and feed in. The closed canopy blocks light to the ground, which allows only an undergrowth that is sparse and poor in resources, and consequently permits few opportunities for mammals to live and feed there. Bats thrive in the tropics, being very successful both in terms of number of species and in their abundances. Nine families of bats occur in Brazil, including more than 140 species; only four families and 40 species occur in the entire United States, an area similar in size to Brazil. While most North American bats feed on insects, the diets of Brazilian bats are more varied and include fruit, nectar, and fish.

7. The word consult in the passage is closest in meaning to

A. believe

B. admire

C. find

D. ask

8. Why does the author provide the information that The closed canopy blocks light to the ground

A. To illustrate why rodents living in tropical forests live in social groups

B. To illustrate why tropical forests have so many species of bats

C. To explain why there are few mammals that live on the ground

D. To explain why some species of monkeys do very well in the tropics

9. It can be inferred from paragraph 3 that the animals most likely to inhabit tropical regions are animals that

A. live in trees

B. outnumber social rodents

C. do not require a variety of food resources

D. prefer the dark

10. Select the TWO answer choices that indicate ways in which Brazilian and North American bats discussed in paragraph 3 differ. To obtain credit, you must select TWO answers.

A. Their diets

B. Their ability to co-exist with abrboreal mammals

C. The size of their habitats

D. The number of species in each location

11. What can be inferred from paragraph 3 about the greater variety of bats in Brazil compared to bats in North America

A. North America is too cold for many varieties of bats.

B. The more varied diets of Brazilian bats allow more diversity in the bat population.

C. An insect diet is less nutritious than a diet of fruit, nectar, and fish.

D. Brazilian bats are arboreal and North American bats are not.

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

A possible explanation for this difference is related to what they eat.

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

Finally, there are some differences in the kinds of animals inhabiting tropical and temperate regions. For instance, in tropical regions there are few social rodents like beavers and prairie dogs and very few rabbit species. On the other hand, some groups occur solely in the tropics and do extremely well there. There are about 75 to 100 species of New World monkeys (depending on which primate specialist you consult), all of which occur in tropical areas. Arboreal (tree-living) mammals such as monkeys and sloths are plentiful in tropical forests, probably because there is a rich, resource-filled, dense canopy to occupy and feed in. The closed canopy blocks light to the ground, which allows only an undergrowth that is sparse and poor in resources, and consequently permits few opportunities for mammals to live and feed there.【A】Bats thrive in the tropics, being very successful both in terms of number of species and in their abundances.【B】Nine families of bats occur in Brazil, including more than 140 species; only four families and 40 species occur in the entire United States, an area similar in size to Brazil.【C】While most North American bats feed on insects, the diets of Brazilian bats are more varied and include fruit, nectar, and fish.【D】

13. Directions: Select from the seven phrases below the phrases that correctly characterize tropical mammals and the phrases that correctly characterize temperate-zone mammals. Drag each phrase you select into the appropriate column of the table. Two of the phrases will NOT be used. This question is worth 3 points.

Answer Choices

A. Endure extreme temperature fluctuations

B. May reproduce several times a year

C. Endure a long dry season

D. Have thick fur coats

E. Some amass large energy reserves

F. Some have predators that are not present all year

G. Remain active all year

|  |  |
| --- | --- |
| tropical mammals | temperate-zone mammals |
|  |  |
|  |  |
|  |

Honeybee Society

Honeybee colonies are essentially societies of females. In a hive of perhaps 20,000 bees, only a few hundred will be male bees, called drones.【A】They are around only in the spring or summerlong enough to rise to treetop level in a comet-like swarm, chasing after one of the queen bees that have assembled from various hives at a mating site. 【B】Of the many drones assembled, only 10 to 15 will actually mate with a queen during one of her mating flights.【C】 Each drone that is successful dies in the process, however, and a similar fate awaits drones that aren't successful; once mating is done, they will be expelled from their hives or killed. 【D】

1..The phrase expelled from in the passage is closest in meaning to

A. forced from

B. carried from

C. left by

D. guided from

2..It can be inferred from paragraph 1 that drones are around only in spring or summer because

A. they are born in these seasons

B. mating flights occur in these seasons

C. they are expelled from the hive in these seasons

D. they are unable to survive in colder seasons

3..According to paragraph 1, all of the following are true about honeybee drones EXCEPT:

A. They are a small percentage of the bees in a hive.

B. They die in the process if they mate with a queen bee.

C. They are accepted back in the hive if they fail to mate.

D. They swarm at mating sites to chase after a queen bee.

The week of mating flights prepares the queen for a lifetime of prodigious egg laying; she will produce up to 2,000 fertile eggs a day for years. Nearly all of the offspring that hatch from these eggs are female; they are the hive's worker bees; and they are well named, for it is they who will maintain the hive, forage for food, store the food away, care for newly laid eggs, and more. It is they who will do everything for the colony, in other words, except lay eggs and mate with the queen.

4..Which of the following can be inferred from the discussion of bee society in paragraphs 1 and 2

A. Male bees have no function other than to mate with the queen.

B. Male bees have higher status than female bees in the hive.

C. Female bees produce numerous offspring.

D. Female bees play a relatively unimportant role in the hive.

Over their brief adult lives of perhaps six weeks, every worker bee takes on, in a predictable order, nearly all the worker tasks that the hive has to offer. For the first three days of her life, a worker is primarily a cleaner of the cells that the bee larvae (immature, wormlike bees) are stored in. As the days pass, she becomes primarily a larvae feeder, then a hive construction worker, then an entrance guard and food storer, and finally a forager, going out to secure nectar, pollen, and water for the colony. Within this structure, however, a worker's life is one of surprising flexibility. After becoming a construction worker, for example, she still engages in some cell cleaning; and throughout her life, she spends a good deal of time resting and patrolling the hive.

5..According to paragraph 3, the main task for the most mature worker bees is

A. storing nectar and pollen

B. cleaning bee larvae cells

C. guarding the entrance to the hive

D. obtaining food and water for the hive

Importantly, there is no chain of command in a colonyno group of workers communicating the message more food needed now or cell cleaning needed over here. How, then, does all this work get organized among tens of thousands of bees Bees are prompted to act either because of environmental conditions (the temperature of the hive, for example) or because of signals or cues they receive from other bees. The signals are explicit acts of communication, as with the famous waggle dance that bees perform to inform their fellow workers of the location of food sites.

6..The word prompted in the passage is closest in meaning to

A. able

B. required

C. programmed

D. stimulated

7..The word explicit in the passage is closest in meaning to

A. unusually creative

B. clearly expressed

C. ordinary

D. necessary

8..Why does the author mention the famous waggle dance that bees perform in the passage

A. To give an example of a signal shared between worker bees

B. To indicate how worker bees are able to find good food sites

C. To show how environmental conditions affect bee behavior

D. To illustrate how the presence of food stimulates bee activity

Quite often, however, bees are reacting to cues they get from other bees that simply imply a given condition. Take, as an example, a cue that researcher Thomas Seeley confirmed that has to do with unloading time at the hive. In a well-fed hive, forager bees gather food only from flower patches that have lots of nectar. When a hive is near starvation, however, the foragers aren't so choosy; then low-yield flower patches will do. So, how does a forager know whether to be choosy or not How is she informed of the nutritional status of the colony, in other words Her informational source is the length of time it takes her to unload her food. Providing the cues are the food-storer bees, which receive the food the foragers bring back and then process it into honey and pack it away in the hive. It takes a returning forager a relatively long time to make contact with a food-storer bee in a well-fed hive, but a relatively short time in a starving hive. Why Because in a well-fed hive, the food storers have plenty to keep them busythere is plenty of food to store away. If, however, a forager can make contact with a food storer within 15 seconds of entering the hive, the forager knows the colony is low on food and will start paying visits to low-yield sites. This is but one example of how life in the colony is self-organizing; each bee's behavior is shaped by the behavior of other bees.

9..The word imply in the passage is closest in meaning to

A. introduce

B. suggest

C. state

D. reveal

10..According to paragraph 5, which of the following describes forager bee activity when a hive has not been receiving sufficient food

A. The foragers spend time looking for high-yield flower patches.

B. The foragers return to the hive only infrequently.

C. The foragers bring nectar from low-yield as well as high-yield flower patches.

D. The foragers travel long distances looking for nectar.

11..According to paragraph 5, how does a returning forager bee know that the hive is well fed

A. The food-storer bees signal the foragers to remain in the hive.

B. The food-storer bees are producing honey, not storing food.

C. The food-storer bees ignore forager bees that are bringing low-quality food.

D. The food-storer bees are busy and not readily available to unload food.

12..In which of the following ways does paragraph 5 relate to paragraph 4

A. Paragraph 5 continues the discussion of the location of food sites begun in paragraph 4.

B. Paragraph 5 elaborates on the topic introduced in paragraph 4 about types of communication between bees.

C. Paragraph 5 discusses the research that made the waggle dance in paragraph 4 famous.

D. Paragraph 5 explains in further detail the foraging activities of worker bees mentioned in paragraph 4.

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

Lacking the body parts to collect nectar and pollen, they have no function in the community once the opportunity to mate has passed.

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

Honeybee colonies are essentially societies of females. In a hive of perhaps 20,000 bees, only a few hundred will be male bees, called drones.【A】They are around only in the spring or summerlong enough to rise to treetop level in a comet-like swarm, chasing after one of the queen bees that have assembled from various hives at a mating site. 【B】Of the many drones assembled, only 10 to 15 will actually mate with a queen during one of her mating flights.【C】 Each drone that is successful dies in the process, however, and a similar fate awaits drones that aren't successful; once mating is done, they will be expelled from their hives or killed. 【D】

14.. Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

A. Although a hive may contain as many as 20,000 bees, only a few of its females become queens and mate with drones.

B. Once a queen has completed mating, she lays thousands of eggs each day, thereby supplying the colony with offspring for many years.

C. Worker bees accomplish all the work necessary to maintain the hive by following an orderly pattern of taking on new tasks as they mature.

D. Mature workers are typically required to play a variety of roles daily to ensure that the needs of the hive are being met.

E. Rather than following orders from leaders, workers determine what needs to be done from environmental cues or from signals from other workers.

F. Bees communicate most efficiently when they provide explicit signals to their fellow workers.

The Western Roman Empire in the Fifth Century

The Western Roman Empire in the Fifth Century答案：A C A C B; A D A C A; B B A (BDE)

Features of Tropical Mammals

Features of Tropical Mammals答案：A A C B B; C D C A AD; B C (CG)(AEF)

Honeybee Society

Honeybee Society答案： C B C A D; D B A B C; D B D BCE

第10套

Individual Performance and the Presence of Others

Paragraph1：A person's performance on tasks can be enhanced or impaired by the mere presence of others, and a person's behavior as part of a group can be quite different from the person's behavior when acting alone.

1..The word enhanced in the passage is closest in meaning to

○ interrupted

○ improved

○ influenced

○ hurt

2..What role does paragraph 1 play in the passage

○ It introduces a common opinion that the rest of the passage challenges on the basis of scientific evidence.

○ It explains why the passage focuses on actions people take individually rather than on actions people take as part of a group.

○ It offers a specific example of a general principle discussed in the rest of the passage.

○ It describes two phenomena, possible explanations of which are considered in the rest of the passage.

Paragraph2：In certain cases, individual performance can be either helped or hindered by the physical presence of others. The term social facilitation refers to any effect on performance, whether positive or negative, that can be attributed to the presence of others. Research on this phenomenon has focused on two types of effects: audience effects (the impact of passive spectators on performance) and coaction effects (the effect on performance caused by the presence of other people engaged in the same task).

3..According to paragraph 2, the term "social facilitation" refers to the phenomenon that a person's performance

○ is intended to help someone

○ is influenced by the presence of other people

○ is evaluated by other people

○ has an effect on others working on the same task

Paragraph3：In one of the first studies in social psychology, psychologist Norman Triplett looked at coaction effects. He had observed in official bicycle records that bicycle racers pedaled faster when they were pedaling against other racers than when they were racing against the clock. Was this pattern of performance peculiar to competitive bicycling Or was it part of a more general phenomenon whereby people work faster and harder in the presence of others than when performing alone Triplett set up a study in which he told 40 children to wind fishing reels as quickly as possible under two conditions: alone or in the presence of other children performing the same task. He found that the children worked faster when other reel turners were present than when they performed alone.

4..The phrase peculiar to in the passage is closest in meaning to

○ damaging to

○ unique to

○ rare in

○ new in

5..The study conducted by Norman Triplett described in paragraph 3 supported the hypothesis that

○ coaction effects are stronger on the performance of children than they are on the performance of adults

○ coaction effects are limited to situations in which the time taken for a task matters

○ people perform better when they know that their performance is being measured by someone

○ people perform better in the presence of others who are doing the same thing they are

Paragraph4：Social psychologist Robert Zajonc proposed an explanation for these seemingly contradictory effects. He reasoned that we become aroused by the presence of others and that arousal facilitates the dominant response the one most natural to us. On simple tasks and on tasks at which we are skilled, the dominant response is to perform effectively. However, on tasks that are difficult or tasks we are just learning, the incorrect response (making a mistake or not performing effectively) is dominant. This reasoning accounts for the repeated findings that, in the presence of others, performance improves on tasks that people do easily but suffers on difficult tasks. Other researchers have suggested that concern over the observers' evaluation is what most affects people's performance, particularly if they expect a negative evaluation.

6..According to paragraph 4, Robert Zajonc proposed that whether the presence of others hurts or helps a person's performance is determined by

○ how skilled the observers are in the task that they are observing

○ how closely the person is being watched

○ whether or not the person finds the task difficult

○ whether or not the person likes the people who are watching

7..According to paragraph 4, if other people are present, a person's performance on a task that he or she is just learning would most likely be

○ somewhat worse than if no one else is there

○ somewhat better than if no one else is there

○ completely unaffected by the presence of those other people

○ dependent on the number of people who are present

Paragraph5：What happens in cooperative tasks when two or more people are working together instead of competing Do they increase their effort or slack off Researcher Bibb Latan used the term social loafing to refer to people's tendency to exert less effort when working with others on a common task than when they work alone. Social loafing occurs in situations where no one person's contribution to the group can be identified and individuals are neither praised for a good performance nor blamed for a poor one. In one experiment, Latan and others asked male students to shout and clap as loudly as possible, first alone and then in groups. In groups of two, individuals made only 71 percent of the noise they had made alone; in groups of four, each student put forth 51 percent of his solo effort; and with six students, each made only a 40 percent effort.

8..The word exert in the passage is closest in meaning to

○ put forth

○ waste

○ demand

○ accept

9..According to paragraph 5, people tend to engage in social loafing when they

○ prefer to work alone

○ fear being blamed for a poor performance

○ believe that their individual performance will not be identified

○ desire to be loyal to their group

10..Which of the following can be inferred from paragraph 5 about Bibb Latan¨¦'s research on social loafing

○ The less a person likes to work alone, the harder that person is likely to work as a member of a group.

○ The less a person contributes to a group, the more likely it is that person will be blamed if the group performs poorly.

○ The more people there are in a group, the more likely they are to compete with each other.

○ The fewer people there are in a group, the less likely it is that social loafing will occur.

Paragraph6：Harkins and Jackson found that social loafing disappeared when participants in a group believed that each person's performance could be monitored and evaluated; indeed, even the idea that the group performance may be evaluated against some standard can be sufficient to eliminate the loafing effect. When a group is relatively small and group evaluation is important, some members will even expend extra effort if they know that some of their coworkers are unwilling, unreliable, or incompetent to perform well. Moreover, social loafing is unlikely when participants can evaluate their own individual contribution or when they have a personal stake in the outcome. It is also unlikely when participants feel that the task is challenging or when they are working with close friends or teammates. Some 80 experimental studies have been conducted on social loafing in diverse cultures. Based on evidence these studies have produced, social loafing probably occurs in almost all cultures.

11..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.

○ Social loafing does not occur when participants in the group believe that evaluating individual performance will improve the group's performance.

○ The loafing effect is eliminated if the members of the group accept the standard by which their performance and that of the group is evaluated.

○ Social loafing tends to disappear if the members of the group believe that their or the group's performance may be evaluated.

○ Researchers have found that when group members receive monitoring and evaluation of their performance, their performance improves.

12..According to paragraph 6, which of the following has NOT been shown to decrease social loafing

○ Participants know that fellow group members are willing, reliable, and competent.

○ The group's task is seen as a challenge.

○ Group members know and like each other.

○ Participants know that their group is being judged on its performance.

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

Paragraph6：Harkins and Jackson found that social loafing disappeared when participants in a group believed that each person's performance could be monitored and evaluated; indeed, even the idea that the group performance may be evaluated against some standard can be sufficient to eliminate the loafing effect. 【】 When a group is relatively small and group evaluation is important, some members will even expend extra effort if they know that some of their coworkers are unwilling, unreliable, or incompetent to perform well.（担心队友偷懒采取行动） 【】 Moreover, social loafing is unlikely when participants can evaluate their own individual contribution or when they have a personal stake in the outcome. 【】It is also unlikely when participants feel that the task is challenging or when they are working with close friends or teammates. Some 80 experimental studies have been conducted on social loafing in diverse cultures. Based on evidence these studies have produced, social loafing probably occurs in almost all cultures. 【】

However, it appears to be most common in individualistic Western cultures such as that of the United States.

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

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ When people are present, the performance of individuals generally improves on tasks they already do well but worsens on tasks they generally do poorly.

○ Studies show that bicycle racers pedal faster when they are competing against other racers, but children wind fishing reels slower when in the presence of others than when alone.

○ People's performance on a task is more affected by the presence of others when those others are engaged in the same task than when the others are passive spectators.

○ When people work together on a common task but no one's contribution is measured, there is a tendency for individuals to work less hard than if they were working alone.

○ Social loafing decreases under certain conditions, such as when the performance of the group or its members is evaluated or when a positive outcome matters to the participants.

○ While social loafing occurs in almost all groups across cultures, the extent to which it occurs in any particular group depends on the individual personalities of the group's members.

The Identification of the Genetic Material（此篇在17年5月13日又考了一次）

Paragraph 1：The history of biology is filled with incidents in which research on one specific topic has contributed richly to another, apparently unrelated area. Such a case is the work of Frederick Griffith, an English physician whose attempts to prevent the disease pneumonia led to the identification of the material in cells that contains genetic information the information that determines an organism's characteristic structure. In the 1920s, Griffith was studying the bacterium Streptococcus pneumoniae, or pneumococcus, one of the organisms that cause pneumonia in humans. He was trying to develop a vaccine against this devastating illness. He was working with two strains of the bacteria pneumococcus. A bacterial strain is a population of cells descended from a single parent cell; strains differ in one or more inherited characteristics. Griffith's strains were designated S and R because, when grown in the laboratory, one produced shiny, smooth (S) colonies or groups of bacteria, and the other produced colonies that look rough (R).

1..The word apparently in the passage is closest in meaning to

○ seemingly

○ surprisingly

○ relatively

○ previously

2..According to paragraph 1, Griffith experimented with strains of the pneumococcus bacteria because he wanted to discover which of the following

○ A strain of bacteria that could be used to develop a vaccine

○ How bacterial strains developed under laboratory conditions

○ Why the strains of bacteria differed in appearance

○ Which bacterial strains were most infectious in humans

Paragraph 2：When the S strain was injected into mice, the mice became diseased. When the R strain was injected, the mice did not become diseased. Bacteria of the S strain are virulent (able to cause disease) because they are surrounded by a protective jelly-like coating that prevents the mouse's immune defense mechanisms from destroying the bacteria before they can multiply. The R strain lacks this coating.

3..Why does the author provide the information that The R strain lacks this coating

○ To provide an example of variations within strains of pneumococcus bacteria

○ To explain why the R strain is not able to cause disease

○ To suggest that the R strain has other ways to defend itself from immune defense mechanisms

○ To explain why mice became diseased when injected with the R strain

strain

Paragraph 3：With the hope of developing a vaccine against pneumonia, Griffith injected some mice with heat-killed S pneumococci. These heat-killed bacteria did not produce infection. Griffith assumed the mice would produce antibodies to the bacteria that would allow them to fight the virulent form if they were exposed to it. However, when Griffith inoculated other mice with a mixture of living R bacteria and heat-killed S bacteria, to his astonishment, the mice became ill with pneumonia. When he examined blood from these mice, he found it full of living bacteria many with characteristics of the virulent S strain. Griffith concluded that, in the presence of the dead S pneumococci, some of the living R pneumococci had been transformed into virulent S-strain organisms.

4..The word astonishment in the passage is closest in meaning to

○ alarm

○ surprise

○ disappointment

○ interest

1. .According to paragraph 3, why did Griffith conclude from his experiment injecting both R and S strains pneumococci into mice that some of the R strain bacteria transformed into disease-causing S strain pneumococci

○ All the living bacteria he found in the blood of the injected mice were S strain bacteria.

○ He already knew from earlier experiments that R strain pneumococci sometimes transform into S strain pneumococci.

○ He could tell from examining the bacteria under a microscope that some individual pneumococci cells had characteristics of both the S and R strains.

○ He observed living cells in the mice's blood with S strain characteristics, but the only living cells injected were R strain pneumococci.

Paragraph 4：Did this transformation of the bacteria depend on something the mouse did to the bacteria No. It was shown that simply putting living R and heat-killed S bacteria together in a test tube yielded the same transformation. Next it was discovered that a cell-free extract of heat-killed S cells also transformed R cells. (A cell-free extract contains all the contents of cells, but no intact cells.) This result demonstrated that some substance called at the time a chemical transforming principle from the extract of S pneumococci could cause a heritable change (a change that could be passed on to future generations) in the affected R cells. From these observations, some scientists concluded that this transforming material carried heritable information, and thus was the genetic material that scientists had been searching for.

6..According to paragraph 4, why was Griffith's experiment repeated in a test tube

○ To provide additional support for the transformation of R-strain into S-strain pneumococci

○ To establish whether or not the transformation of R cells was caused by something the mouse's body did

○ To determine why the S-strain pneumococci somehow survived if they were in the presence of the R-strain

○ To test the results of adding a cell-free extract to the mixture

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.

○ This result showed that the chemical transforming principle in S pneumococci was passed on to future generations of S pneumococci.

○ After exposure to the cell-free extract from the S pneumococci, R pneumococci strain cells acquired the ability to transform themselves into S pneumococci.

○ The transformation of R cells by a cell-free extract of S pneumococci demonstrated the existence of a chemical transforming principle that brought about heritable change.

○ This transformation showed that the characteristics that the S pneumococci possess are superior to the characteristics of R pneumococci.

Paragraph 5：The identification of the transforming material was a crucial step in the history of biology, accomplished over a period of several years by Oswald Avery and his colleagues at what is now Rockefeller University. They treated samples of the transforming extract in a variety of ways to destroy different types of substances proteins, nucleic acids, carbohydrates, and lipids and tested the treated samples to see if they had retained transforming activity. The answer was always the same: If the DNA (deoxyribo nucleic acid) in the extract was destroyed, transforming activity was lost; everything else could be eliminated without removing the transforming ability of the extract. As a final step, Avery, with Colin MacLeod and Maclyn McCarty, isolated virtually pure DNA from a sample of pneumococcal transforming extract and showed that it caused bacterial transformation.

8..According to paragraph 5, why did Oswald Avery and his colleagues treat the transforming extract in a variety of destructive ways

○ They hoped to destroy the virulent part of the transforming extract.

○ They wanted to identify the substance responsible for the transforming activity.

○ They wanted to identify which methods would destroy particular substances in the transforming extract.

○ They needed to determine which treatments were most successful in destroying DNA.

9..The word virtually in the passage is closest in meaning to

○ perfectly

○ nearly

○ partially

○ relatively

Paragraph 6：In retrospect, the work of Avery, MacLeod, and McCarty, published in 1944, was a milestone in establishing that DNA is the genetic material. However, at the time, it had little impact on scientists' view about the physical basis of inheritance. The genetic material had to encode all the information needed to specify an organism, and the chemical complexity and diversity of proteins were known to be impressive. So during the first half of the twentieth century, the hereditary material was generally assumed to be a protein. Nucleic acids, by contrast, were known to have only a few components and seemed too simple to carry such complex information.

10..The phrase In retrospect in the passage is closest in meaning to

○ By general agreement

○ In reality

○ Looking back

○ Practically speaking

11..According to paragraph 6, why did scientists continue to believe that the hereditary material was a protein

○ Scientists thought that the research of Avery and his colleagues provided insufficient information about the nature of DNA.

○ Scientists believed that only proteins were complex enough to carry genetic information.

○ Scientists thought Avery and his colleagues had little understanding of the physical basis of inheritance.

○ Scientists ignored important milestones that indicated the chemical complexity of DNA.

12..Which of the following can be inferred from the passage about the transformed R-strain pneumococci

○ They had acquired the genetic information for producing a protective coating.

○ They were unable to cause transformation in other strains of pneumococci.

○ In the presence of heat-killed R-strain bacteria, they lost their virulence.

○ They did not multiply as quickly as nontransformed cells did.

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

Why

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

此题被插入句不完整，无法做

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ From the 1920s through 1944, researchers used pneumococcus bacteria to discover the properties of DNA because the bacteria was relatively simple, having only two strains.

○ Frederick Griffith discovered that a nonvirulent strain of bacteria could be transformed into a virulent strain by being exposed to dead cells from the virulent strain.

○ By selectively destroying various substances in the cells of pneumococci bacteria, Oswald Avery and his colleagues identified DNA as the substance that caused bacterial transformation.

○ Oswald Avery injected the combination of heat-killed, virulent cells and nonvirulent cells into mice because he hoped this would lead to a vaccine for pneumonia.

○ Avery and his colleagues were able to isolate Griffith's transforming principle by injecting mice with the extract that contained the transforming principle.

○ Scientists did not initially recognize the importance of the discovery that DNA could cause genetic transformation because the hereditary material was assumed to be a protein.

How Birds Acquire Their Songs

Paragraph 1：Most songbirds hatch in the spring and then merely listen to the songs of adult male birds until sometime in late summer or autumn, when the adults stop singing, not to resume until the end of winter the following year. It is usually male birds that are doing the singing in northern latitudes, though female singing is common in the tropics. Many young songbirds do no singing of their own until nearly a year after their birth. With the coming of their second spring, their testosterone levels rise and this in turn prompts them to begin singing, with their song development following a predictable pattern over a period of weeks. At first, their songs may be a quiet, jumbled series of chirps and whistles. Over time, young birds begin to use the syllables of their species' songs, though the order in which these syllables appear will vary. Finally, their songs crystallize (take form) into the clear, orderly song of their species.

1..The word prompts in the passage is closest in meaning to

○ stimulates

○ strengthens

○ prepares

○ forces

2..According to paragraph 1, which of the following is true of male songbirds in the first year of life

○ They do not begin singing until sometime in late summer or autumn.

○ They begin singing earlier in the tropics than in northern latitudes.

○ They listen to songs of adults for an extended period of time before they themselves sing.

○ Their earliest songs contain the characteristic order of syllables for their species.

Paragraph 2：There is a songbird, called the white-crowned sparrow, whose song development follows this general script while providing some variations that are instructive about the interplay of internal influences and learning in birdsong. White-crowned sparrows raised in captivity will follow the pattern of song acquisition just described: they listen to songs in their first spring and summer but do not themselves begin singing until they are perhaps six months old. In nature, however, things are different. For example, the white-crown found year-round in the San Francisco area sings a particular regional variant or dialect of the basic white-crown song and begins singing within six weeks or so of birth and may progress to fully crystallized song as early as three months after birth, meaning about September.

3..The word particular in the passage is closest in meaning to

○ popular

○ specific

○ well-known

○ complex

Paragraph 3：Why would there be a difference between singing in nature and singing in the laboratory █ The pressures of nature. █ As year-round residents, the San Francisco white-crowns do not fly into an area in spring and then establish territories. █ Rather, they establish territories as early as their first autumn. █ One function of birdsong is to announce, I have a territory here. Young white-crowns, like many species, will extend this practice by counter singing, meaning a male, upon hearing the song of a nearby male of its species, will repeat the exact song he has heard, thus setting off a back-and-forth duel, like two children in an argument, each of them saying, I'm still here.

4..According to paragraphs 2 and 3, all of the following are true about San Francisco white-crowns EXCEPT:

○ They do not migrate to another area in spring to establish territories.

○ They completely acquire their song as early as three months after birth.

○ They establish territories in their first autumn.

○ They begin singing much earlier in captivity than they do in nature.

5..In paragraph 3, the author points out that San Francisco white-crowns establish their territories in the area in which they are born in order to explain which of the following

○ Why they practice counter-singing

○ Why they get better territories than white-crowns that establish territories in areas in which they are not born

○ Why they are more competitive than white-crowns raised in captivity

○ Why in their natural habitat they start singing earlier than white-crowns raised in captivity

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

○ Many species, including white-crowns, use a dueling technique to spread the practice of countersinging to other males of the species.

○ A young white-crown male uses countersinging to learn the songs of nearby males by repeatedly practicing them.

○ A young white-crown male engages in countersinging with a nearby male in order to assert its continuing presence in its territory.

○ Young white-crown males, much like young children, are competitive.

Paragraph 4：Internal influences and learning are also on display in white-crowns in the way they acquire their songs. We know that there is often a so-called sensitive period for animal learninga kind of window in which an animal is able to acquire certain skills or information. In laboratory-raised white-crowns, the sensitive period starts at about ten days after birth and extends until about fifty days after birth. A white-crown that became deaf prior to the opening of the sensitive period eventually will sing individual notes, but it will never learn to sing its species' song. Meanwhile, white-crowns that are raised in nature through part of their sensitive period and then taken to the laboratory will begin singing the following winter in the dialect of the area in which they were hatched. Two points are worth observing about this. First, note that these birds are learning the white-crown song months before they ever start practicing it themselves. Indeed, the learning window will be closed completely (in their first summer) before these lab-reared birds ever sing a note (the following winter). Second, learning is important enough in song acquisition that white-crowns learn not just their species' song but local or regional variants of it, which they are able to recall months after last hearing them.

7..The word eventually in the passage is closest in meaning to

○ generally

○ probably

○ in the end

○ at the least

8..The word recall in the passage is closest in meaning to

○ repeat

○ remember

○ recognize

○ complete

9..According to paragraph 4, white-crowns with which of the following life histories demonstrate the importance of memory in song acqusition

○ White-crowns that learn a dialect before they learn their standard song

○ White-crowns that first heard a dialect of the white-crown song before they were ten days old

○ White-crowns that were moved from where they were born to a different region during their sensitive period

○ White-crowns that were raised in nature through part of their sensitive period and then transferred to the laboratory

10..What can be inferred from paragraph 4 about the local dialect of the species song that a white-crown sings after the sensitive period has closed

○ Those dialects must be learned during the sensitive period and are retained thereafter even in new environments.

○ Those dialects can be learned after the sensitive period if they are common in the local area.

○ Those dialects can be learned after the sensitive period if the birds are raised in the laboratory.

○ Those dialects are learned during the sensitive period and afterward used only when they hear others sing them.

Paragraph 5：But what about internal influences Interestingly, all white-crowns that are reared in isolation from birth eventually sing nearly identical versions of a kind of standard white-crown song. In other words, there seems to be a built-in version of the white-crown song that becomes modified with local dialects only when birds are raised in the wild. Beyond this, isolated white-crowns that are exposed to tapes of other species' songs will ignore the other birds' songs entirely and go on to sing the basic white-crown song. White-crowns are thus genetically disposed to learn their own song while ignoring the songs of others.

11..According to paragraph 5, which of the following statements is true about white-crowns reared in isolation that are exposed to tapes of other species' songs

○ The tapes cause the white-crowns to begin singing earlier than those not exposed to the tapes.

○ The tapes do not affect the white-crowns' singing development or change their song.

○ The tapes help the white-crowns learn the standard song of their species.

○ The tapes aid the white-crowns in learning local dialects of other species.

12..What can be inferred from paragraph 5 about the song of white-crowns raised in the wild

○ It is less complex than the song of birds raised in isolation.

○ It is the standard song of the white-crown species.

○ It is a mixture of the basic white-crown song and the dialects of other white-crowns that inhabit the local area.

○ It is identical to dialects learned from exposure to tapes.

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

So San Francisco white-crowns need to start quickly making their presence known.

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

Paragraph 3：Why would there be a difference between singing in nature and singing in the laboratory █ The pressures of nature. █ As year-round residents, the San Francisco white-crowns do not fly into an area in spring and then establish territories. █ Rather, they establish territories as early as their first autumn. █ One function of birdsong is to announce, I have a territory here. Young white-crowns, like many species, will extend this practice by counter singing, meaning a male, upon hearing the song of a nearby male of its species, will repeat the exact song he has heard, thus setting off a back-and-forth duel, like two children in an argument, each of them saying, I'm still here.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Male birds have a standard process for acquiring their songs that involves a sensitive period when learning takes place.

○ Birds raised in the wild can differ from those raised in captivity in when they begin to sing their song, which is used to establish their territory.

○ Testosterone levels in male birds affect the quality of the young bird's song.

○ Birds that do not need to establish their territory, such as those raised in isolation, are unlikely to learn to sing.

○ The learning of local dialects demonstrates that song acquisition involves both internal and environmental influences.

○ Birds raised in the wild may acquire the songs of other species in their local area.

Cereals and Legumes: A Partnership

Paragraph 1： Cereals are flowering grasses that sprout, flower, seed, and die in the space of a year, which is why gardeners refer to them as annuals. █Grown for their seeds or kernels, cereals are excellent sources of energy: although they lack some amino acids, as well as calcium, vitamin A, and vitamin C, they provide starch and oil, and in some cases, considerable amounts of protein. █Once ripe, the kernels are relatively easy to store, and they retain their nutrients for a long time. Even the stalks of cereals are useful as animal food, as bedding in stables and barns, and as a building material. █A major drawback with cereals is that they depend on the soil for nitrogen. █Without fertilization they eventually exhaust the fields they are growing in, but despite this, two cereals (wheat and barley) were the very first plants to be domesticated (grown for human use); and a third (rye) may have been cultivated, or even domesticated, at about the same time. Today, cereal crops including wheat, rice, maize, sorghum, millet, and oats provide most of the calories in the human diet.

1..According to paragraph 1, all of the following are advantages of cereals EXCEPT:

○ They provide large amounts of energy when consumed.

○ They store easily and retain nutrients for a long time.

○ They provide considerable amounts of calcium, vitamin A, and vitamin C.

○ They have multiple uses, including as bedding or building material.

2..According to paragraph 1, a major disadvantage of cereals is that they

○ cannot be used as animal food

○ must be planted in a different field every year

○ take a long time to ripen before they can be used or stored

○ use up all of the nitrogen in a field unless fertilizer is used

Paragraph 2： Like cereals, legumes are annuals. Some legumes are grown for animal fodder. Many other legumes, however, are cultivated for their seeds, which ripen in pods. The seeds are rich in B vitamins and iron, contain on average two times the protein but less starch than cereals, and can be eaten, sometimes pods and all, while they're still green. (Snow peas and green beans are familiar examples.) Legumes are characterized by a long period of sequential ripening, during which a single plant may have ripe pods, green pods, and flowers, all at the same time, which means that a stand of legumes can be harvested again and again over several weeks. Like cereals, legumes can be dried and stored for later use (the pods open easily when dry), and again like cereals, legumes provide food for both people and animals. However, legume plants add nitrogen to the soil, so when they are grown in the same fields as cereals, they can replace much of the nitrogen the cereals have depleted.

3..According to paragraph 2, one way in which legumes differ from cereals is that legumes

○ are a better source of starch

○ contain far more protein

○ take much longer to ripen

○ must be dried before being stored

4..According to paragraph 2, all of the following statements about legumes are true EXCEPT:

○ Legumes have pods that help seeds ripen quickly.

○ Legumes contain a lot of iron and B vitamins.

○ Legumes return nitrogen to the soil.

○ Legume plants can be harvested many times during a growing season.

Paragraph 3： Growing cereals and legumes together is good for the fields, and eating them together is good for the farmers. In order to build and maintain body tissue, people need protein or more specifically, the amino acids in protein. Some amino acids are synthesized in the adult human body, but eight essential ones cannot be and have to come from food. Although all eight are present in animal protein, plant proteins are usually missing one or two. When cereals and legumes are eaten together, they provide all eight of the essential amino acids, a fact that the ancestors of early agriculturalists undoubtedly understood at least on a practical level and their descendants took advantage of that knowledge. In Asia, rice, wheat, and barley were grown along with soybeans; in India rice was paired with hyacinth bean, black gram, and green gram; in the African savanna, pear millet and sorghum were domesticated along with cow pea and Bambara groundnut; and in the New World, maize and Phaseolus beans in Central America and maize and groundnuts in South America were the bases for agriculture.

5..The word specifically in the passage is closest in meaning to

○ precisely

○ importantly

○ frequently

○ likely

6..The word undoubtedly in the passage is closest in meaning to

○ possibly

○ typically

○ certainly

○ initially

7..Paragraph 3 supports which of the following ideas about amino acids

○ Amino acids are not produced by the human body and must be obtained from food.

○ Certain amino acids that people need for building and maintaining body tissue cannot be acquired from plant proteins.

○ When legumes or cereals are consumed alone, they do not provide all of the essential amino acids.

○ Legumes are missing many more of the eight essential amino acids than cereals are.

8..In paragraph 3, why does the author discuss crops grown in Asia, India, the African savanna, and the New World

○ To show how widely the understanding of the benefits of combining legumes and cereals was applied

○ To suggest that it was most effective for the same crops to be grown year after year in many parts of the world

○ To emphasize that proteins that come from plants were recognized as valuable in many parts of the world

○ To demonstrate that a wide variety of very different cereals and legumes could be grown together

Paragraph 4： Cereals and legumes are technically dry fruits (they have a hard dry layer around their seeds). Early agriculturalists also experimented with growing succulent fruits like apples, olives, grapes, and melons, but most of these were brought into domestication much later than cereals and legumes, and in most cultures they've always been supplementary foods rather than staples. Many of them are propagated vegetatively asexually by using a plant part such as a bulb or cutting rather than sexually through seeds, so they are more complicated to grow than cereals and legumes, and this may account for their typically late addition to agricultural assemblages. It should be noted, however, that recent research in Israel suggests that figs may have been domesticated at a site near Jericho in the Jordan Valley at about the same time as the first experiments with cereals and legumes, and some archaeologists believe that in New Guinea, tubers may have been domesticated long before other crops were imported.

9..The word technically in the passage is closest in meaning to

○ more complex than

○ generally understood to be

○ often confused with

○ scientifically classified as

10..The word supplementary in the passage is closest in meaning to

○ valued

○ rare

○ seasonal

○ extra

11..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.

○ Many of the cereals and legumes can be propagated asexually through offshoots, cuttings, tubers, bulbs and corns or sexually through seeds, which are less complicated to grow.

○ Fruits were typically domesticated later than cereals and legumes, possibly because they tend not to be propagated through seeds and are thus more complicated to grow.

○ Plants that are propagated sexually through seeds are generally much less complicated to grow than asexually propagated plants are.

○ In addition to being propagated asexually, rather than sexually through seeds, many fruits can be added and grown later in the season than cereals and legumes.

12..Paragraph 4 supports which of the following ideas about the figs that may have been domesticated in the Jordan Valley near Jericho

○ Their early domestication casts doubt on the idea that succulent fruits were grown much later than cereals and legumes.

○ They were a more important crop to inhabitants of the Jordan Valley than cereals and legumes were.

○ They are closely related to the plants domesticated in New Guinea before other crops were imported.

○ They are much easier to grow than any other succulent fruit.

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

Although they must be replanted each year, they can be grown for a variety of uses.

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

Paragraph 1： Cereals are flowering grasses that sprout, flower, seed, and die in the space of a year, which is why gardeners refer to them as annuals. █Grown for their seeds or kernels, cereals are excellent sources of energy: although they lack some amino acids, as well as calcium, vitamin A, and vitamin C, they provide starch and oil, and in some cases, considerable amounts of protein. █Once ripe, the kernels are relatively easy to store, and they retain their nutrients for a long time. Even the stalks of cereals are useful as animal food, as bedding in stables and barns, and as a building material. █A major drawback with cereals is that they depend on the soil for nitrogen. █Without fertilization they eventually exhaust the fields they are growing in, but despite this, two cereals (wheat and barley) were the very first plants to be domesticated (grown for human use); and a third (rye) may have been cultivated, or even domesticated, at about the same time. Today, cereal crops including wheat, rice, maize, sorghum, millet, and oats provide most of the calories in the human diet.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Cereals, annual flowering grasses with usable stalks and nutritious seeds that dry and store well, were the first domesticated plants, but they must be grown with legumes to preserve soil nitrogen.

○ Legumes contain a large amount of protein and, when they are eaten with cereals, provide all the amino acids essential to humans.

○ Both the seeds and stalks of wheat and barley were eaten by early agriculturalists, who needed to take in enough nutrients and calories to work the fields.

○ Planting cereals and legumes together sped up their growing period, which meant that they could both be harvested many times over a period of several weeks to several months.

○ Cereals and legumes were typically domesticated well before succulent fruits, which are harder to cultivate, and became staples in early agricultural societies.

○ Because soil conditions in New Guinea and the Jordan Valley made it difficult to grow cereals such as wheat and barley, these regions began to cultivate figs and tubers instead.

Individual Performance and the Presence of Others

Individual Performance and the Presence of Others：B D B B D; C A A C D; C A D ADE

The Identification of the Genetic Material

The Identification of the Genetic Material：A A B B D; B C B B C; B A [插入题缺题目] BCF

How Birds Acquire Their Songs

How Birds Acquire Their Songs：A C B D D; C C B D A; B C D ABE

Cereals and Legumes: A Partnership

Cereals and Legumes: A Partnership答案：C D B A A; C C A D D; B A A ABE

第11套

Alaska and Bark Beetles

Paragraph 1：Over the twentieth century, global temperatures increased by an average of about 0.7 degrees Celsius, but some places have warmed a lot more than this, and other places have warmed less. These temperature increases have been enough to trigger changes in ecosystems all over the world, especially in places where the warming has been the greatest. In some places, the changes have been subtle, perhaps a slight shift in vegetation that only a careful observer would notice. In other cases, small changes in climate have sparked a chain of larger effects, leading to massive changes.

1..The word subtle in the passage is closest in meaning to

○ limited

○ unimportant

○ not obvious

○ gradual

Paragraph 2：The biggest climate-caused ecosystem shifts today are happening at the world's most northern latitudes, where the temperature over the last century has been rising about two times faster than the global average. In the northernmost state of the United States, Alaska, for example, warming has paved the way for a spike in the numbers of spruce bark beetles. Bark beetles have been a pest to Alaskan white spruce trees for thousands of years, but their numbers were held in check by the cold climate, which forced the insects to hide in the bark of individual trees for most of the year. As the length of the warm season increased over the 1980s and 1990s, however, bark beetles had more time to fly from one tree to the next, burrow, and lay their eggs between the bark and the wood. The beetles had another thing going for them, too: a multi-year drought had weakened many of the spruce trees, leaving them vulnerable to attack. In the mid-1990s, the bark beetle population exploded, and over the next few years the pests wiped out white spruce forests over an area the size of the U.S. state of Connecticut. In the years since, the combined forces of a longer insect-breeding season and forest management practices that left forests overcrowded gave way to similar epidemics farther south. Large swaths of pine and spruce have been destroyed by insects in several other parts of the United States.

2..The phrase paved the way for in the passage is closest in meaning to

○ come together with

○ made possible

○ increased the intensity of

○ made absolutely certain

3..The phrase wiped out in the passage is closest in meaning to

○ damaged

○ threatened

○ spread through

○ killed off

4..Paragraph 2 suggests that the warming of the Alaskan climate affected bark beetles in which of the following ways

○ By making it possible for a beetle to deposit its eggs in a greater number of trees

○ By making it possible for beetles to survive in the bark of trees for longer lengths of time

○ By making it unnecessary for a beetle to protect its eggs by laying them between the bark and the wood

○ By increasing the number of spruce trees, thereby providing the beetles with far more places to live

5..According to paragraph 2, all of the following contributed to the destruction of forests in different parts of the United States EXCEPT

○ a drought that had lasted for several years

○ a lack of forest management practices

○ overcrowding in forests

○ a huge increase in spruce tree pest populations

Paragraph 3：In the late 1990s, the effects of the bark beetle epidemic rippled throughout Alaska's white spruce ecosystem and affected virtually every population of living organisms, but not all of the impacts were negative. Fewer spruce trees meant a sunnier area in the forest below the treetops, which allowed grasses to move in and take hold. The grasses, in turn, changed the soil temperature, making the environment more friendly for some other types of vegetation. Animals that feed on grasses, including moose, elk, and some birds, also benefited. But the beetle infestation was bad news for organisms that rely on white spruce for their habitat, like hawks, owls, red squirrels, and voles. Voles a type of small, mouselike rodent are an especially vital part of the ecosystem because they help spread mycorrhizal fungi, which attach to the roots of plants and help them take in water and nutrients. Voles are also an important food for a number of predators.

6..Which of the following statements most accurately describes the relationship of paragraph 3 to paragraph 2

○ Paragraph 2 explains the causes of the spruce bark beetle epidemic in Alaska, and paragraph 3 discusses the chain of events that occurred as a result of that epidemic.

○ Paragraph 2 shows that warming air temperatures can affect a large number of species, and paragraph 3 shows that warming soil temperatures can have even greater effects.

○ Paragraph 2 discusses one explanation for the disappearance of spruce trees from a part of Alaska, but paragraph 3 shows that an alternative explanation is more likely to be correct.

○ Paragraph 2 describes the negative consequences of climate warming for some species, but paragraph 3 shows that there are also some positive consequences for these same species.

7..According to paragraph 3, which of the following effects did the bark beetle epidemic have on moose, elk, and some birds

○ The epidemic increased the availability of water for these animals.

○ The epidemic increased the availability of food for these animals.

○ The epidemic destroyed the habitat of these animals.

○ The epidemic meant that these animals experienced more competition from hawks, owls, red squirrels, and voles.

8..According to paragraph 3, a decline in the vole population in Alaska may have which TWO of the following consequences To receive credit, you must select TWO answer choices.

○ Some predators may have less to eat.

○ Hawk and red squirrel populations may be more successful.

○ Plants may find it more difficult to absorb water and nutrients.

○ Mycorrhizal fungi numbers may increase.

Paragraph 4：█Ecosystem changes always hurt some living creatures and help others. It's hard to say, therefore, whether a change is good or bad overall. █Instead, ecologists (people who study ecosystems) often focus on the impacts on a single species: for instance, us. █ In the short term, the Alaskan spruce beetle epidemic supplied a lot of people with firewood, but only by destroying tons of otherwise valuable timber and threatening the livelihoods of loggers. █And no one knows for sure what the long-term impacts on the forest will be. Ecosystems tend to return to their previous states after disturbances like pest outbreaks, fires, or major storm events, but if the Alaskan spruce ecosystem is disturbed too often or too much, it might shift to a different type of forest, a woodland, or a grassland instead.

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.

○ Ecosystems like the spruce ecosystem in Alaska tend to return to their previous states after disturbances such as pest outbreaks, fires, or major storm events.

○ While ecosystems tend to return to their previous states after disturbances, the Alaskan spruce ecosystem might not if it is disturbed too often or too much.

○ Ecosystems tend to return to their previous states after disturbances, so Alaska might again become covered with woodlands or grasslands.

○ After certain types of disturbances such as pest outbreaks, ecosystems do not always return to their previous states but shift to being woodlands or grasslands instead.

Paragraph 5：In extreme cases, major assaults on ecosystems can lead to a total collapse in which the ecosystem doesn't bounce back to the way it was or transition to a new, healthy state. The result is an area with very little life; in the oceans, biologists refer to these areas as dead zones. One such example is the coral reef die-off that happened in the Indian Ocean in the late 1990s.

10..The phrase assaults on in the passage is closest in meaning to

○ imbalances in

○ changes in

○ problems for

○ attacks on

11..In paragraph 5, coral reefs in the Indian Ocean are presented as an example of which of the following

○ Ecosystems that totally collapsed

○ Ecosystems that transitioned to a new, healthy state

○ Ecosystems that bounced back to the way they were

○ Ecosystems that were affected by a nearby dead zone

12..The passage provides an answer to which of the following questions

○ Why has the temperature at northern latitudes been rising faster than the global average

○ Why did corals in the Indian Ocean die off in the late 1990s

○ What types of vegetation benefited from the change in soil temperatures in Alaska

○ What were some of the effects of the bark beetle epidemic for humans

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

But even from this limited perspective, the answer is not completely straightforward.

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

Paragraph 4：█Ecosystem changes always hurt some living creatures and help others. It's hard to say, therefore, whether a change is good or bad overall. █Instead, ecologists (people who study ecosystems) often focus on the impacts on a single species: for instance, us. █ In the short term, the Alaskan spruce beetle epidemic supplied a lot of people with firewood, but only by destroying tons of otherwise valuable timber and threatening the livelihoods of loggers. █And no one knows for sure what the long-term impacts on the forest will be. Ecosystems tend to return to their previous states after disturbances like pest outbreaks, fires, or major storm events, but if the Alaskan spruce ecosystem is disturbed too often or too much, it might shift to a different type of forest, a woodland, or a grassland instead.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Global warming has led to changes in ecosystems all over the world, with ecosystems at northern latitudes being affected the most.

○ A longer warm season in Alaska caused a sharp increase in the number of bark beetles, leading to the destruction of spruce forests, which in turn seriously affected many other species.

○ Sometimes ecosystems are able to recover from disturbances or to develop into different, but healthy, systems, but in extreme cases, they may collapse completely.

○ The loss of spruce forests caused an epidemic in mycorrhizal fungi, and these fungi damaged the roots of many plants, making them unable to take in water and nutrients.

○ Whereas some types of changes are good for the majority of species in an ecosystem, ecologists believe that most disturbances to ecosystems are bad overall.

○ Coral reefs may die off as a result of the global increase in temperatures, but after a transition period as a dead zone, they are able to return to their original state.

Motor Development in Children

Paragrah 1：Control over one's motor behavior ranks among the infant's greatest achievements. Psychologists who study the acquisition of motor skills in children find it useful to distinguish between gross motor development, that is, motor skills which help children to get around in their environment such as crawling and walking, and fine motor development, which refers to smaller movement sequences like reaching and grasping.

1..According to paragraph 1, the distinction between gross motor development and fine motor development is based primarily on

○ how much control the infant has over the motor skills

○ when the motor skills are developed

○ the size of the movement sequences involved

○ the usefulness of the movement sequences involved

Paragrah 2：The development of motor skills has implications beyond simply learning how to perform new actions: motor skills can have profound effects on other areas of development. For example, researchers have shown that infants with locomotor experience (experience moving around their environment) were less likely to make errors while searching for hidden objects. The ability to initiate movement around one's environment stimulates the development of XXX（此处缺具体的词）, making hidden object tasks easier to solve. Psychology professor Carolyn Rovee-Collier argues that the onset of independent locomotion at around nine months old marks an important transition in memory development. Children who can move about the environment develop an understanding of locations such as here and there. Because infant memory is initially highly dependent on context that is, the similarity between the situation where information is encoded (stored in memory) and where it is recalled infants who have experience moving about the environment and who learn to spatially encode information become less dependent on context for successful recall. These examples show that gross motor development has implications beyond the immediately apparent benefits of crawling and walking.

2..The word onset in the passage is closest in meaning to

○ achievement

○ beginning

○ improvement

○ practice

3..The phrase immediately apparent in the passage is closest in meaning to

○ available

○ obvious

○ desirable

○ useful

4..According to paragraph 2, why do infants with locomotor experience have less trouble locating hidden objects

○ Moving around their environment helps infants to develop a better memory for spatial locations.

○ Moving around their environment increases infants' ability to make use of context to identify objects.

○ Moving around their environment gives infants more opportunity to correct their errors when searching for objects.

○ Moving around their environment reduces the time infants have to spend spatially encoding information.

5..According to paragraph 2, as a result of developing an understanding of here and there, infants are better able to

○ describe the locations of objects in space

○ feel comfortable in new and unfamiliar situations

○ use context as an aid to recalling previously encoded information

○ recall information in situations unlike the one in which it was originally encoded

Paragrah 3：Renowned psychologist Jean Piaget argued that the development of reaching and grasping was a key aspect of development because it formed an important link between biological adaptation and intellectual adaptation. Reaching and grasping are voluntary actions under the infant's control, and as such, they open up exciting new possibilities in their ability to explore the environment. An infant who reaches for and grasps an object so as to explore it pushes his development forward as he engages in processes such as adapting his grip to the size and shape of the object. Piaget argued that these early processes drive cognitive development in the first two years of an infant's life.

6..The word Renowned in the passage is closest in meaning to

○ Educational

○ Controversial

○ Famous

○ Theoretical

7..The phrase engages in in the passage is closest in meaning to

○ repeats

○ learns about

○ performs

○ imitates

8..What can be inferred from paragraph 3 about the cognitive development of an infant in its first two years of life as described by Piaget

○ It is a sign of advanced development when an infant is able to control its urges to reach and grasp.

○ Repeated practice reaching for and grasping objects results in important biological adaptations.

○ Infants who spend large amounts of time in exciting environments have more difficulty in their intellectual development.

○ An infant's development will be slower if it is not given the opportunity to reach for and hold objects.

Paragrah 4：█The development of reaching begins early on in life. Newborn infants seated in an upright position will swipe and reach towards an object placed in front of them, a behavior labeled "prereaching." █These poorly coordinated behaviors start to decline around two months of age and are replaced by "directed reaching" which begins at about three months of age. █At this time reaching becomes more coordinated and efficient, and improves in accuracy. █According to research conducted by Clifton et al., the infant's reaching does not depend simply on the guidance of the hand and arm by the visual system but is controlled by proprioception, the sensation of movement and location based on the stimulation arising from bodily sources such as muscle contractions. By about nine months old, infants can adjust their reaching to take into account a moving object. However, nine month olds are far from expert reachers. A good deal of skill must still develop.

9..In paragraph 4, why does the author emphasize the point that nine month olds are far from expert reachers

○ To support the idea that nine-month-olds vary a great deal in their reaching abilities

○ To distinguish between the directed reaching and the non directed reaching of infants

○ To stress that an infant's reaching skills continue to improve even after the first nine months

○ To call into question the accuracy of the results presented by Clifton et al

10..According to paragraph 4, which of the following statements about directed reaching is true

○ Directed reaching behaviors have typically developed by the time an infant is about two months old.

○ Directed reaching behaviors do not appear until an infant is able to account for the movement of an object.

○ Directed reaching is the earliest form of reaching behavior that infants develop.

○ Directed reaching is controlled both by the visual system and by proprioception.

Paragrah 5：Once infants begin reaching they also begin to grasp the objects that are the target of their reaches. The ulnar grasp is seen when infants first engage in directed reaching. The ulnar grasp is a primitive form of grasping in which the infant's fingers close against its palm. The fingers seem to act as a whole, requiring the use of the palm in order to hold an object. Shortly after this accomplishment, when infants can sit upright on their own, they can acquire the ability to transfer objects from hand to hand. Around the end of the first year, infants will have graduated to using the pincer grasp where they use their index finger and thumb in an opposable manner (placing them opposite each other), resulting in a more coordinated and finely tuned grip which allows for the exploration of very small objects or those objects which demand specific actions for their operation, such as the knobs on a stereo system which require turning to the left or right to adjust volume.

11..All of the following statements about the ulnar grasp are true EXCEPT:

○ It is a relatively uncoordinated form of grasping.

○ It is used by infants when they first engage in directed reaching.

○ It develops only after infants become able to sit upright on their own.

○ It makes use of the palm as well as the fingers to hold an object.

12..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.

○ Infants of about a year old begin using their index finger and thumb to make more coordinated and finely tuned movements, allowing them to explore and manipulate small objects.

○ Around the end of the first year, infants begin to use a type of grip on small objects that is more coordinated and finely tuned than was the pincer grasp.

○ Infants begin handling very small or difficult-to-operate objects at about one year of age, resulting in improvements in their ability to grip objects with their thumb and fingers.

○ When one-year-old infants begin using the pincer grasp, they become much more interested in very small objects (such as knobs on a stereo system).

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

What accounts for this greater accuracy

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

Paragrah 4：█The development of reaching begins early on in life. Newborn infants seated in an upright position will swipe and reach towards an object placed in front of them, a behavior labeled "prereaching." █These poorly coordinated behaviors start to decline around two months of age and are replaced by "directed reaching" which begins at about three months of age. █At this time reaching becomes more coordinated and efficient, and improves in accuracy. █According to research conducted by Clifton et al., the infant's reaching does not depend simply on the guidance of the hand and arm by the visual system but is controlled by proprioception, the sensation of movement and location based on the stimulation arising from bodily sources such as muscle contractions. By about nine months old, infants can adjust their reaching to take into account a moving object. However, nine month olds are far from expert reachers. A good deal of skill must still develop.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ The ability to move around in an environment gives infants an understanding of location and thus reduces the extent to which their memory is dependent on context.

○ Infants become better at finding hidden objects once they have developed the type of grasp that allows them to handle and explore very small objects in their environment.

○ Piaget argues that an infant's cognitive development is related to the development of fine motor skills that make it possible for infants to interact with and adapt their actions to their environment.

○ Fine motor skills tend to develop later than do gross motor skills because fine motor skills require smaller, more finely tuned movements and a great deal of coordination.

○ When infants first begin to grasp objects, they transfer the objects from hand to hand and firmly close their fingers against their palms.

○ Reaching and grasping begin early; by about three months, reaching is more coordinated and efficient, and by one year, infants begin to develop a coordinated and finely tuned grip.

Bison and Humans

Paragraph 1：When human beings first migrated from Asia into North America at the end of the last ice age, they found an enormous, now extinct creature known as the giant long-horned bison (Bison priscus). We know that early Americans hunted these beasts because excavated skeletons of the bison bear stone spear tips. The style of the points dates them to twelve to thirteen thousand years ago, not long after the first wave of human immigrants washed south and east across the continent. These early Americans ate a variety of plants and animals, but judging from the campsite remains, they had a special taste for long-horned bison. It was their favorite prey, perhaps because one animal filled so many stomachs.

1..According to paragraph 1, which of the following best describes the relationship between humans twelve to thirteen thousand years ago and the giant long-horned bison

○ Humans first came to the Americas as a result of following long horned bison that were migrating from Asia to the Americas.

○ Humans in the Americas preferred hunting long-horned bison to hunting other animals.

○ Humans in the Americas were forced to migrate south and east across the continent as a result of the presence of long-horned bison.

○ Humans in the Americas generally ate plants and small animals because long-horned bison were difficult to hunt.

Paragraph 2：The giant horns that gave Bison priscus its common name tell us some important things about its lifestyle. Animals with gigantic weapons on their heads usually live alone or in small groups. Animals that live in herds usually have small horns. Horns and antlers help males in several ways. Animals use these horns and antlers to fight with other members of the same species, to increase their appeal to potential mates, and to protect themselves from predators. Fossil bones suggest that giant bison used their long, outward-facing horns to injure their opponents. An individual with longer horns had a better chance of circumventing its opponents' horns and fatally wounding them than one with shorter horns, and females probably preferred to mate with winners of these contests rather than with losers, either because they liked what they saw in the male or because they liked the territory that the male could defend from competitors.

2..The word gigantic in the passage is closest in meaning to

○ very big

○ very dangerous

○ powerful

○ sharp

3..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.

○ Females may have chosen their mates based on the male's ability to win contests with other males, or perhaps they decided based on territory.

○ The longer-horned opponent was more likely to win in a fight, which probably made him more attractive to females because of his physical characteristics or his ability to protect territory.

○ Males engaged in contests in which they tried to wound one another with their horns while avoiding being hit by the horns of their opponent.

○ An individual that was able to avoid its opponents' horns had a better chance of fatally wounding them and winning the contest for territory or females.

4..According to paragraph 2, the fact that Bison priscus had giant horns suggests which of the following about its lifestyle

○ The bison were probably more concerned with protecting themselves from predators than with fighting each other.

○ The horns were probably more for display to attract mates than for use as actual weapons.

○ Those individuals with smaller horns probably banded together to fight the males with larger horns.

○ Individuals probably lived by themselves or with only a few other bison.

Paragraph 3：The giant bison's architecture served it well for thousands of years, but its body shrank and changed shape starting about twelve thousand years ago. The timing gives us an important clue about the cause. Only two major predators, wolves and lions, had hunted giant bison for tens of thousands of years. If they caused the change, it would have happened much earlier. The big change in the bison's environment twelve to thirteen thousand years ago was the arrival of a new predator. This one walked on two feet, hunted in cooperative bands, and carried spears with well-designed stone points. Its remarkable efficiency at hunting seems to have caused a reduction in the body size of other large mammals, too. Over the past ten thousand years, North American sheep, elk, moose, musk ox, bears, antelope, and wolves have all shrunk.

5..In paragraph 3, why does the author include the information that wolves and lions "had hunted giant bison for tens of thousands of years"

○ To emphasize how good the bison's defenses were

○ To support the claim that only wolves and lions hunted the bison for long enough to cause changes in its evolution

○ To help explain why predation by wolves and lions cannot account for the changes that occurred in bison twelve thousand years ago

○ To introduce a discussion of how changes in bison directly affected other large animals in North America

6..Which of the following can be inferred from paragraph 3 about North American sheep, elk, moose, musk ox, bears, antelope, and wolves

○ They have all changed as a result of hunting by humans.

○ They all originated in North America at about the same time.

○ They all contributed to the change in the bison's environment.

○ They all contributed to the change in the bison's size and shape.

Paragraph 4：Scholars have offered various explanations for these changes, but it seems likely that these new hunters converted the giant bison's shape and habits from virtues into liabilities. Hunters who needed to get close to their prey, such as wolves and human beings armed with spears, preferred to attack lone individuals rather than many victims at once. Hunting punished solitary, territorial giant bison and rewarded those that stayed close together. Clumps of bison became more common and grew into herds.

7..According to paragraph 4, which of the following is true about humans and wolves when hunting large animals

○ Both needed to attack their prey when their prey were outside their territory.

○ Both attacked the animals in the closest part of a herd.

○ Both preferred to attack animals that were far from others.

○ Both preferred to attack multiple animals at the same time.

Paragraph 5：Herding is a classic response to heavy predation. It brings a statistical advantage to herd members because the odds that a predator will hone in on any one individual will decrease with the size of the herd. Herds further improved odds for members through cooperative behavior. Members warned each other of danger, and they fought off predators by joining forces (e.g. by forming a circle with vulnerable backsides to the center and dangerous horns facing the periphery).

8..The word vulnerable in the passage is closest in meaning to

○ hidden

○ defenseless

○ harmless

○ useless

9..Which of the following is NOT one of the reasons given in paragraph 5 for why herding is a classic response to heavy predation

○ Herd members can teach one another strategies for avoiding predators.

○ Herd members can alert one another to approaching predators.

○ Herd members can fight off predators together.

○ Being in a herd reduces the chance that any particular individual will be a target.

Paragraph 6：But bison paid a price for herding. In a given area, the supply of food per individual declined along with the chances of being attacked. Smaller bodies probably resulted from a decline in food availability as bison crowded together. Herding changed the bison's shape as well as size. Now survival depended on the ability to crop grass, bison's main food, quickly. Shifting the head closer to the ground, reducing horn size, and growing a hump to cantilever, or support, the head's weight enabled bison to graze for long periods without strain. Giant horns, which enabled males to defend territory, may also have become a liability as being able to stay close together became more valuable.

10..The word strain in the passage is closest in meaning to

○ stopping

○ rest

○ movement

○ stress

11..The word valuable in the passage is closest in meaning to

○ common

○ possible

○ important

○ natural

12..According to paragraph 6, bison in herds needed to be able to crop grass quickly because

○ the amount of food available for an individual had decreased

○ the bison body had become smaller

○ the chances of being attacked by a predator had increased

○ bison had grown a hump to support the head's weight

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

In sum, by forcing bison to live in herds, humans encouraged the development of a new kind of bison, the short-horn, humpbacked bison that we know today.

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

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Judging from campsite remains, the first wave of immigrants to North America carried with them hunting tools they had successfully used to hunt large animals in Asia.

○ Fossil bones suggest that several species of the long-horned bison once existed in North America, but by the time humans arrived, most of them had become extinct.

○ The size of the bison's horns suggest that individuals lived alone or in small groups, a habit that made them attractive prey for human hunters.

○ The bison began living in herds, which would have provided protection from hunters but also decreased the amount of food available for each individual.

○ Early Americans preferred hunting long-horned bison for their horns which could be used to create sharp spear tips for hunting other large animals such as moose and musk ox.

○ When bison began to live close together, this led to other adaptations in size and shape necessary for survival.

Alaska and Bark Beetles

Alaska and Bark Beetles答案：C B D A B; A B [AC] B D; A D C ABC

Motor Development in Children

Motor Development in Children：C B B A D; C C D C D; C A D ACF

Bison and Humans

Bison and Humans答案：B A B D C; A C B A D; C A D CDF

第12套

Primitive and Advanced Termite Species

Paragraph 1：Termites are insects that collect vegetation, chew it up, and leave the chemical breakdown to other organisms. There are two strategies. The most primitive termites swallow the chewed vegetation and pass it to a fermentation chamber in their bodies. There, anaerobic bacteria break down the cellulose, an organic compound that forms about 33 percent of all plant matter. The termites are nourished by the ever-growing population of microorganisms in their guts that turn the grass, leaves, and twigs the insects ingest into glucose. Cattle do much the same thing: they allow bacteria to ferment the cellulose in an airtight rumen (digestive chamber), and then digest the bacteria.

1..According to paragraph 1, in what way are the most primitive termites like cattle

○ They have two ways of breaking down the cellulose in vegetation.

○ They get no nutritional benefit from eating vegetation.

○ Their digestive chambers are not airtight.

○ They rely on bacteria to process the vegetation they ingest.

Paragraph 2：Termite evolution has several obvious trends, from primitive species, which live in small hidden colonies, to groups millions strong, the builders of enormous mounds that allow for heat and gas exchange. The less advanced groups digest microorganisms, which do the real work of breaking food down. The culture (colony) of cellulose digesters is passed along through a special exchange. Young termites feed on a special liquid secretion provided by adults, rich in the group's digestive heritage. When reproductive termites those destined to produce offspring leave the nest, they carry in their stomachs the microorganisms essential for the digestive success of their offspring. Treat a colony of these termites with an antibiotic solution, and they will slowly starve to death.

2..The phrase special exchange in the passage refers to

○ the transfer of cellulose digesters from one colony of termites to another

○ the development of small colonies into much larger ones

○ the transfer of liquid secretions from adult termites to young termites

○ the departure of certain reproductive termites and the arrival of others

3..Why does the author include the statement Treat a colony of these termites with an antibiotic solution, and they will slowly starve to death

○ To suggest one reason why termites sometimes leave a colony

○ To emphasize how dependent the termites are on bacteria

○ To account for the elimination of certain termite lineages

○ To help explain why termites protect essential microorganisms by carrying them in their stomachs

Paragraph 3：More advanced species have a different feeding strategy. The energy source is still cellulose, but it is digested outside the termite's body. Not having to carry around large chambers of slowly fermenting cellulose solution makes these species more nimble and efficient. Foragers bring twigs and leaves back to special areas and chew them. They then transplant bits of fungus growing on other pieces of nearby vegetation onto the gnawed edges, where the fungi break down the cellulose. Fungi is the only kingdom of organisms able to digest cellulose in air, though they need warmth and humidity to do the job efficiently. This is just what the termites provide. Moreover, these social insects carefully tend the fungus-covered vegetation by treating it with antibiotics they secrete to keep bacterial growth to a minimum. When it is time for the fungus to reproduce, pieces are carried into the open to complete the life cycle. Some species of fungi are found only in termite mounds of a particular species; without their caretakers, these fungi would die. Needless to say, the termites eat the fungi; neither can live without the other. Reproductive termites even carry a chunk of fungi when they leave on mating flights.

4..The phrase Needless to say in the passage is closest in meaning to

○ On the other hand

○ Most importantly

○ Obviously

○ Besides

5..According to paragraph 3, each of the following is true about the fungi found in termite nests EXCEPT:

○ The fungi can digest cellulose in the presence of air.

○ The fungi secrete antibiotics to keep bacterial growth to a minimum.

○ The fungi reproduce in the open with the help of termites.

○ The fungi need a warm, humid environment to function effectively.

Paragraph 4：The evolutionary trend in termites is to forsake excavated nests in soil or wood, like those of most ants, for carton nests constructed inside excavations or on trees. (When referring to termites, carton means, broadly, nesting material consisting of a mix of adhesive saliva or feces with earth or pulp, and even sand, to create cells, floors, walls, graceful arches, tiered roofs, chimney stacks, and buttressed towers up to twenty feet high.) Primitive termites do not store food; they live from hand to mouth, inside a rotting tree, for instance. Advanced termites have special carton areas for food they hold in reserve; these supplies consist of nonperishable material such as grass clippings, analogous to the hay and straw fed to cattle in the winter, and are kept in a dry carton loft. Primitive species need wet cellulose, such as damp wood; more advanced species can also process dry material.

6..The word adhesive in the passage is closest in meaning to

○ sticky

○ wet

○ ordinary

○ released

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.

○ In winter, when fresh grass is not available, termites must rely on nonperishable food sources such as hay and straw.

○ Advanced termites store different foods in different chambers, reserving the least perishable material for winter.

○ Advanced termites have special chambers where they store nonperishable food supplies.

○ Advanced termites' supplies of grass clippings are like hay and straw fed to cattle in winter.

8..Paragraph 4 suggests that for primitive termites, a major advantage of nesting inside a rotting tree is that a rotting tree

○ is a very easy site to excavate

○ provides a ready source of wet cellulose

○ provides a lot of raw material for making carton

○ helps preserve stored food

Paragraph 5：To expand their niche in this way, dry-diet termites require a source of water. In arid habitats, they excavate vertical tunnels down to the water table, as much as 150 feet below, which fan out at the base to increase the area of contact and thus maximize the rate of subsurface water accumulation. Finally, less advanced termites remain their entire lives in tunnels and cells excavated in or near wood. More complex species, on the other hand, search for food away from a central nest. To ensure that they can work in safety, they burrow shallowly through the earth or build mud-covered tunnels on the surface of the ground or trees and around the food they wish to harvest.

9..The word ensure in the passage is closest in meaning to

○ show

○ prove

○ suggest

○ guarantee

10..According to paragraph 5, which of the following is true about the vertical tunnels constructed by dry-diet termites

○ They allow water from the surface to accumulate underground.

○ They are generally wider at the top than at the bottom.

○ They provide extra space so that dry-diet termite populations can expand.

○ They are constructed to provide direct access to water.

11..According to paragraph 5, why do termites build mud-covered tunnels on the surface of the ground

○ To make harvesting food less dangerous

○ To create a safe place to live

○ To avoid contact with surface water

○ To avoid competition with species that create deep underground tunnels

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

This remarkable adaptation, however, is not unique to termites.

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

Termites are insects that collect vegetation, chew it up, and leave the chemical breakdown to other organisms. 【A】There are two strategies. The most primitive termites swallow the chewed vegetation and pass it to a fermentation chamber in their bodies.【B】 There, anaerobic bacteria break down the cellulose, an organic compound that forms about 33 percent of all plant matter. The termites are nourished by the ever-growing population of microorganisms in their guts that turn the grass, leaves, and twigs the insects ingest into glucose. 【C】Cattle do much the same thing: they allow bacteria to ferment the cellulose in an airtight rumen (digestive chamber), and then digest the bacteria.【D】

13.Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices(左边选两个，右边选三个，判断各个行为符合哪种)

|  |  |
| --- | --- |
| Primitive termites | Advanced termites |
|  |  |
|  |  |
|  |

Answer Choices

A. Grow fungi on chewed vegetation

B. Do not chew vegetation

C. Must remain close to or inside wood

D. Are able to digest cellulose in air

E. Can consume dry vegetation

F. Take care of fungi that break down cellulose

G. Have a body chamber specifically for breaking down cellulose

Elements of Life

Paragraph 1：The creation of life requires a set of chemical elements for making the components of cells. Life on Earth uses about 25 of the 92 naturally occurring chemical elements, although just 4 of these elements oxygen, carbon, hydrogen, and nitrogen make up about 96 percent of the mass of living organisms. Thus, a first requirement for life might be the presence of most or all of the elements used by life.

1..The word components in the passage is closest in meaning to

○ parts

○ bodies

○ combinations

○ characteristics

Paragraph 2：Interestingly, this requirement can probably be met by almost any world. Scientists have determined that all chemical elements in the universe besides hydrogen and helium (and a trace amount of lithium) were produced by stars. These are known as heavy elements because they are heavier than hydrogen and helium. Although all of these heavy elements are quite rare compared to hydrogen and helium, they are found just about everywhere.

2..According to paragraphs 1 and 2, living cells contain which of the following

○ All chemical elements in the universe except lithium

○ About 25 different elements

○ About 96 percent of all known elements

○ Ninety-two naturally occurring elements

Paragraph 3：Heavy elements are continually being manufactured by stars and released into space by stellar deaths, so their amount compared to hydrogen and helium gradually rises with time. Heavy elements make up about 2 percent of the chemical content (by mass) of our solar system; the other 98 percent is hydrogen and helium. In some very old star systems, which formed before many heavy elements were produced, the heavy-element share may be less than 0.1 percent. Nevertheless, every star system studied has at least some amount of all the elements used by life. Moreover, when planetesimals---small, solid objects formed in the early solar system that may accumulate to become planets condense within a forming star system, they are inevitably made from heavy elements because the more common hydrogen and helium remain gaseous. Thus, planetesimals everywhere should contain the elements needed for life, which means that objects built from planetesimals planets, moons, asteroids, and comets also contain these elements. The nature of solar-system formation explains why Earth contains all the elements needed for life, and it is why we expect these elements to be present on other worlds throughout our solar system, galaxy, and universe.

3..Why does the author provide the information that "Heavy elements are continually being manufactured by stars and released into space by stellar deaths"

○ To explain how it is that the elements required for life can be found everywhere

○ To provide evidence that our solar system is relatively young

○ To argue that some solar systems are more likely to support life than others

○ To explain why heavy elements have greater mass than hydrogen and helium

4..Paragraph 3 suggests that which of the following may be a difference between very old star systems and newer star systems

○ Older star systems are likely to have fewer planets, moons, asteroids, and comets than newer star systems.

○ Newer star systems probably contain more hydrogen and helium than older star systems.

○ Newer star systems probably contain more heavy elements than older star systems.

○ The process of solar-system formation may have been fundamentally different in older star systems than in newer star systems.

5..The word Nevertheless in the passage is closest in meaning to

○ additionally

○ however

○ in particular

○ on the contrary

6..The word inevitably in the passage is closest in meaning to

○ typically

○ unsurprisingly

○ necessarily

○ naturally

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.

○ Planetesimals may remain in star systems when hydrogen and helium combine with less common heavier elements.

○ Planetesimals are composed of heavy elements because hydrogen and helium stay in the form of gases.

○ Planetesimals are small, solid objects that condense within a forming star system and may become planets.

○ When planetesimals accumulate to form planets, they inevitably contain gaseous as well as heavy elements.

Paragraph 4：Note that this argument does not change, even if we allow for life very different from life on Earth. Life on Earth is carbon based, and most biologists believe that life elsewhere is likely to be carbon based as well. However, we cannot absolutely rule out the possibility of life with another chemical basis, such as silicon or nitrogen. The set of elements (or their relative proportions) used by life based on some other element might be somewhat different from that used by carbon-based life on Earth. But the elements are still products of stars and would still be present in planetesimals everywhere. No matter what kinds of life we are looking for, we are likely to find the necessary elements on almost every planet, moon, asteroid, and comet in the universe.

8..According to paragraph 4, which of the following is true about possible life on other planets

○ It cannot be based on silicon or nitrogen.

○ It could not survive on Earth.

○ It probably would not be made of elements produced by stars.

○ It is likely to have carbon as its chemical basis.

Paragraph 5：A somewhat stricter requirement is the presence of these elements in molecules that can be used as ready-made building blocks for life, just as early Earth probably had an organic soup of amino acids and other complex molecules. Earth's organic molecules likely came from some combination of three sources: chemical reactions in the atmosphere, chemical reactions near deep-sea vents in the oceans, and molecules carried to Earth by asteroids and comets. The first two sources can occur only on worlds with atmospheres or oceans, respectively. But the third source should have brought similar molecules to nearly all worlds in our solar system.

9..According to paragraph 5, all of the following are true of the organic molecules on early Earth EXCEPT:

○ Some of them were probably brought to Earth by asteroids or comets.

○ Some of them probably formed in the atmosphere and oceans.

○ They were probably significantly different from the organic molecules present on other planets in the solar system.

○ They included complex molecules.

Paragraph 6：Studies of meteorites and comets suggest that organic molecules are widespread among both asteroids and comets. Because each body in the solar system was repeatedly struck by asteroids and comets during the period known as the heavy bombardment (about 4 billion years ago), each body should have received at least some organic molecules. However, these molecules tend to be destroyed by solar radiation on surfaces unprotected by atmospheres. Moreover, while these molecules might stay intact beneath the surface (as they evidently do on asteroids and comets), they probably cannot react with each other unless some kind of liquid or gas is available to move them about. Thus, if we limit our search to worlds on which organic molecules are likely to be involved in chemical reactions, we can probably rule out any world that lacks both an atmosphere and a surface or subsurface liquid medium, such as water.

10..The phrase widespread among is closest in meaning to

○ frequently present in

○ widely separated in

○ a significant part of

○ found throughout the bodies of

11..The word intact in the passage is closest in meaning to

○ buried

○ whole

○ confined

○ active

12..According to paragraph 6, why is life unlikely to be found on any planet that lacks both an atmosphere and a surface or subsurface liquid medium

○ Organic molecules must be protected from solar radiation by a surface layer of liquid.

○ Planets that lack both of these features are probably too small to have been hit by many asteroids or comets carrying organic matter.

○ Organic molecules need a liquid or gaseous environment to bring them together so they can interact.

○ An atmosphere is needed to protect organic molecules from being destroyed by asteroids and comets.

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

To answer the question “Could life exist on other planets”, we must first look at the necessary preconditions for life.

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

Paragraph 1：【A】The creation of life requires a set of chemical elements for making the components of cells.【B】Life on Earth uses about 25 of the 92 naturally occurring chemical elements, although just 4 of these elements oxygen, carbon, hydrogen, and nitrogen make up about 96 percent of the mass of living organisms.【C】Thus, a first requirement for life might be the presence of most or all of the elements used by life. 【D】

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Somewhere between 4 and 25 naturally occurring elements are necessary for life, depending on the complexity of the organism.

○ The most common elements used by life oxygen, carbon, hydrogen, and nitrogen are also some of the most widely distributed elements in the universe.

○ Life is most likely to be found in the oldest star systems, where heavy elements have been continually produced since those systems were formed.

○ Planets, moons, asteroids, and comets are all composed of heavy elements, which means they contain the basis for any life form, carbon based or otherwise.

○ Life is most likely to exist on those bodies that were not heavily bombarded with asteroids and comets during the formation of the solar system.

○ Organic molecules are widely available, but chemical reactions among these molecules probably require either an atmosphere or a liquid medium.

Agriculture in the Late Ottoman Empire

Paragraph1：Throughout its history, agriculture was the economic mainstay of the Ottoman Empire, which dominated North Africa, the Middle East, Turkey, and southeastern Europe for over 600 years until the early twentieth century. Most cultivators possessed small landholdings, engaging in a host of tasks, with their crops and animal products mainly dedicated to self-consumption. But enormous changes over time prevailed in the agrarian sector. Beginning in the late eighteenth century, agriculture became more and more commercialized, with increasing amounts of produce going to sale to domestic and international consumers.

1..According to paragraph 1, in which of the following ways did agricultural production in the Ottoman empire begin to change at end of the eighteenth century

○ Agricultural products no longer contributed as much to the Ottoman economy.

○ Agricultural workers left their farms to work in commercial industries in the cities.

○ Farmers with small landholdings began to focus on a single task rather than on many tasks.

○ Farm products were sold commercially instead of being kept for personal use.

Paragraph2：At least three major engines increased this agricultural production devoted to the market, the first being rising demand, both international and domestic. Abroad, especially after 1840, the living standards and buying power of many Europeans improved substantially, permitting them to buy a wider choice and quantity of goods. Rising domestic markets within the empire were also important, thanks to increased urbanization as well as mounting personal consumption. In the late nineteenth century, newly opened railroad districts brought a flow of domestic wheat and other cereals to major coastal cities. Railroads also attracted market gardeners who now could grow and ship fruits and vegetables to the expanding and newly accessible markets of these cities.

2..The word substantially in the passage is closest in meaning to

○ without interruption

○ significantly

○ rapidly

○ unexpectedly

3..The word accessible in the passage is closest in meaning to

○ profitable

○ competitive

○ created

○ reachable

4..According to paragraph 2, all of the following contributed to a rising demand for the agricultural products of the Ottoman empire during the nineteenth century EXCEPT

○ the sale of domestic wheat in place of other cereals in coastal cities

○ the development of railroad systems leading to coastal cities

○ the rise in living standards and buying power among Europeans

○ the emergence of new domestic markets in the Ottoman Empire

Paragraph3：The second engine driving agricultural output concerns cultivators' increasing payment of their taxes in cash rather than in kind (that is, in agricultural or other products). Some historians have asserted that the increasing commitment to market agriculture was a product both of a mounting per capita tax burden and the state's growing preference for tax payments in cash rather than in kind. In this view, such government decisions forced cultivators to grow crops for sale in order to pay their taxes. Thus, state policy is seen as the most important factor influencing the cultivators' shift from subsistence farming to market agriculture.

5..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.

○ Some historians have asserted that the increasing commitment to market agriculture allowed the government to raise taxes and have them paid in cash.

○ The government raised taxes and required they be paid in cash, so farmers had to use the cash they obtained from selling their farm products in the market to pay their taxes

○ Some historians have asserted that the increasing commitment to market agriculture was a product of the state's growing preference for tax payments in cash rather than kind.

○ According to some historians, the growth of market agriculture was the result of mounting taxes which the government wanted individuals to pay in cash.

6..Which of the following best represents the explanation for the change in agricultural production mentioned in paragraph 3

○ The state allowed cultivators to pay their taxes in crops as well as in cash.

○ Cultivators needed crops they could sell to pay taxes in cash.

○ State policies began favoring farmers who shifted to market agriculture by lowering those farmers' taxes.

○ Cultivators had more money to invest in crops because of a lower tax burden.

Paragraph4：However, cultivators' rising involvement in the market was not simply a reactive response to the state's demands for cash taxes; other factors were at work. There was a third engine driving increased agricultural production cultivators' own desires for consumer goods. Among Ottoman consumers, increasingly frequent changes in taste, along with the rising availability of cheap imported goods, stimulated a rising consumption of goods. This pattern of rising consumption began in the eighteenth century, as seen by the urban phenomenon of the Tulip Period (1718¨C1730)a time of urban revival and orientation toward the West and accelerated subsequently. Wanting more consumer goods, cultivators needed more cash. Thus, rural families worked harder than they had previously, not merely because of cash taxes. In such circumstances, leisure time diminished, cash incomes rose, and the flow of consumer goods into the countryside accelerated.

7..The word stimulated in the passage is closest in meaning to

○ encouraged

○ followed

○ suggested

○ demonstrated

8..According to paragraph 4, the increasing desire of Ottoman cultivators to purchase consumer goods led to all of the following changes EXCEPT:

○ Cultivators worked harder and for longer hours.

○ Cultivators had less cash available to use for tax payments.

○ Cultivators succeeded in increasing the amount of cash income they earned.

○ More consumer goods became available in rural areas.

Paragraph5：Increases in agricultural production both promoted and accompanied a vast expansion of the area of land under cultivation. At the beginning of the eighteenth century and indeed until the end of the empire, there remained vast stretches of uncultivated, sometimes nearly empty, land on every side. These spaces began to fill in, a process finally completed only in the 1950s in most areas of the former empire. Many factors were involved. In many cases, families increased the amount of time at work, bringing into cultivation uncultivated land already under their control. They also engaged in sharecropping agreeing to work another's land and paying that person a share of the output. Often such acreage had been pastureland for animals but now was given over to crop production. The extraordinarily fertile lands of Moldavia and Wallachia (modern Romania), for example, had been among the least populated lands of the Ottoman empire in the eighteenth century, but now saw large amounts of land brought under the plow. Significant concentrations of commercial agriculture first formed in areas easily accessible by water, such as the Danube River basin. During the nineteenth century, expansion in such areas continued, and interior regions joined the list as well. █ There were also some increases in productivity. █ Irrigation projects, one form of intensive agriculture, developed in some areas, and the use of modern agricultural tools increased. █ But more intensive exploitation of existing resources remained comparatively unusual, and most increases in production derived from placing additional land under cultivation. █

9..The word engaged in the passage is closest in meaning to

○ succeeded

○ believed

○ invested

○ participated

10..The word exploitation in the passage is closest in meaning to

○ improvement

○ use

○ management

○ investigation

11..According to paragraph 5, which of the following was true of the process of bringing new land under cultivation

○ It began in interior areas and quickly spread to areas near water.

○ It was completed near the end of the eighteenth century.

○ It occurred slowly because most uncultivated land was not very fertile.

○ It often occurred as a result of farming families working longer hours.

12..What can be inferred from paragraph 5 about agricultural production during the nineteenth century

○ Irrigation and the use of modern tools contributed little to increased production in comparison with other factors.

○ Interior regions increased their agricultural production much more than regions near river basins did.

○ Agricultural production was aided by using less-productive land for animal pasture instead of for growing crops.

○ Agricultural production increased in some areas but decreased in others during the nineteenth century.

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

These increases resulted from using technology to improve yields on existing farmland, a system known as intensive agriculture.

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

Paragraph5：Increases in agricultural production both promoted and accompanied a vast expansion of the area of land under cultivation. At the beginning of the eighteenth century and indeed until the end of the empire, there remained vast stretches of uncultivated, sometimes nearly empty, land on every side. These spaces began to fill in, a process finally completed only in the 1950s in most areas of the former empire. Many factors were involved. In many cases, families increased the amount of time at work, bringing into cultivation uncultivated land already under their control. They also engaged in sharecropping agreeing to work another's land and paying that person a share of the output. Often such acreage had been pastureland for animals but now was given over to crop production. The extraordinarily fertile lands of Moldavia and Wallachia (modern Romania), for example, had been among the least populated lands of the Ottoman empire in the eighteenth century, but now saw large amounts of land brought under the plow. Significant concentrations of commercial agriculture first formed in areas easily accessible by water, such as the Danube River basin. During the nineteenth century, expansion in such areas continued, and interior regions joined the list as well. █ There were also some increases in productivity. █ Irrigation projects, one form of intensive agriculture, developed in some areas, and the use of modern agricultural tools increased. █ But more intensive exploitation of existing resources remained comparatively unusual, and most increases in production derived from placing additional land under cultivation. █

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Until the late eighteenth century, farmers were limited to selling their crops and animal products for cash in nearby towns.

○ Starting in the late eighteenth century, farmers increasingly produced crops for sale in domestic and international markets.

○ Many farmers sold their products in order to be able to pay their taxes in cash and buy consumer goods for themselves.

○ Railroads changed the way farming was done, since they brought modern tools from towns to the agricultural areas.

○ Increased productivity resulted more from the cultivation of additional land than from the use of new tools and intensive agricultural processes.

○ Farming was concentrated in river basins throughout the nineteenth century, while interior areas were devoted to pastureland for animals.

Primitive and Advanced Termite Species

Primitive and Advanced Termite Species答案：D C B C B; A C B D D; A C; (CG)(AEF)

Elements of Life

Elements of Life答案：A B A C B; C B D C A; B C A BDF

Agriculture in the Late Ottoman Empire

Agriculture in the Late Ottoman Empire答案：D B D A B; B A B D B; D A B BCE

第13套

Early Modern Industrialization

Paragraph 1：

Industrial output increased smartly across nearly all of Europe between 1450 and 1575. Although trade with the Americas had something to do with this, the main (determinants) of this industrial advance lay within Europe itself.

1..The word determinants in the passage is closest in meaning to

○ origins

○ long-term benefits

○ causes

○ effects

Paragraph 2：

Population grew from 61 million in 1500 to 78 million a century later, and the proportion of Europeans living in cities of 10,000 or more and thus dependent on the market for what they consumed expanded from less than 6 percent to nearly 8 percent during the same period. More important than sheer numbers, many Europeans' incomes rose. This was especially true among more fully employed urban groups, farmers who benefited from higher prices and the intensifying commercialization and specialization in agriculture (which also led them to shed much non-agricultural production in favor of purchased goods), and landlords and other property owners who collected mounting rents. Government activities to build and strengthen the state were a stimulus to numerous industries, notably shipbuilding, textiles, and metallurgy. To cite just one example, France (hastened) to develop its own iron industry when the Hapsburgs the family that governed much of Europe, and whom France fought repeatedly in the sixteenth century came to dominate the manufacture of weapons in Germany and the cities of Li¨¨ge and Milan, which boasted Europe's most advanced technology.

2..The word hastened in the passage is closest in meaning to

○ needed

○ rushed

○ decided

○ attempted

3..According to paragraph 2, the fact that more people lived in European cities meant that

○ more people had to purchase food and other basic necessities rather than producing these things themselves

○ industrial output increased because more people were available for employment in manufacturing

○ fewer people were available for agricultural work and thus farmers were forced to pay higher wages

○ more people competed for full-time urban employment, driving wages down

4..Which of the following is discussed in paragraph 2 as contributing to the growth in the market for manufactured goods that occurred in Europe after 1500

○ Lower costs for food and housing

○ Advancements in manufacturing technology

○ Higher incomes

○ Increased property ownership by farmers

Paragraph 3：

The supply of goods was also significantly modified. ■ Migration had long been critical for the (diffusion) of knowledge that spawned new trades or revived others. Now thousands of workers, and sizeable amounts of capital, moved from one region to another. ■ At the same time, new commodities appeared on the market, often broadening and deepening demand. ■ Most were inexpensive items destined for individual consumers. ■ Knitted stockings, ribbon and lace, buttons, starch, soap, vinegar brewed from beer, knives and tools, pots and ovens, and many more goods, formerly made only for local sale, now entered into channels of national or international trade. The best-known and most widely adopted new industry was printing with movable type, which spread swiftly throughout Europe after Johannes Gutenberg (perfected) his innovation in 1453. Despite isolated cases of resistance the scribes' guild (an association of book copiers) delayed printing's introduction into Paris for twenty years, for example more than 380 working presses had sprung up by 1480, and 1,000 (in nearly 250 towns) by 1500. Between 1453 and 1500, all the presses of Europe together turned out some 40,000 editions (known as incunabula), but from 1501 to 1600, that same quantity was produced in Lyon and Paris alone.

5..The word diffusion in the passage is closest in meaning to

○ creation

○ spread

○ explosion

○ application

6..The word perfected in the passage is closest in meaning to

○ marketed

○ completed

○ announced

○ exhibited

7..Paragraph 3 suggests that one reason for the change in the supply of goods available to European consumers was

○ the development of the new industry of printing with movable type

○ a decrease in the demand for European goods in areas outside Europe

○ an increase in the wider European market for goods that before had been intended only for local markets

○ the overturning of rules preventing workers from moving from one region to another

8..According to paragraph 3, which of the following was true about the new technology for printing with movable type

○ It met with opposition wherever attempts were made to introduce it.

○ It spread with increasing rapidity throughout Europe after 1453.

○ It rapidly turned printing into the most important industry in Paris.

○ It was controlled in most places by the local scribes' guild.

Paragraph 4：

In metals and mining, technical improvements were available that saved substantially on raw materials and fuel, causing prices to drop. The construction of ever-larger furnaces capable of higher temperatures culminated in the blast furnace, which used cheaper ores and economized on scarce and expensive wood, cutting costs per ton by 20 percent while boosting output substantially. A new technique for separating silver from copper allowed formerly worthless ores to be exploited. Better drainage channels, pumps, and other devices made it possible to tunnel more deeply into the earth as surface deposits began to be exhausted. 【In most established industries, however, technological change played little role; as in the past, new customers were sought by developing novel products based on existing technologies, such as a new type of woolen cloth with the texture of silk.】

9..Which of the following is NOT identified in paragraph 4 as an improvement made possible by technological developments

○ The mining of ores that had previously been too deep to reach

○ The use of previously worthless ores

○ A reduction in the cost of expensive wood

○ The construction of furnaces that cost less to operate

10..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.

○ Although most established industries continued operating with existing technologies, some novel products required the development of new technologies.

○ In the past, technological change had been unimportant in most established industries because the products that customers wanted could be produced using existing technologies.

○ In most established industries, technological change played a role only when it made possible the production of novel products that attracted new customers.

○ Most established industries attracted new customers by developing new products based on existing technologies rather than by applying new technologies.

Paragraph 5：

Sharply declining transaction costs (the direct and indirect expenses associated with transporting, distributing, and marketing goods and services) were more influential. On a general level, the decrease was due to greater security thanks to the lessening of wartime disruptions and to the achieved when selling to large, concentrated urban populations. More specifically, it can be traced to transport innovations such as the carrack, a large ship that reduced rates for ocean borne freight by up to 25 percent, and big four-wheeled Hesse carts for overland routes. The spread of efficient organizational forms further contributed to declining costs, as did falling interest rates, which dropped from 20 percent or 25 percent in the mid-fifteenth century to 10 percent 100 years later.

11..According to paragraph 5, what was one reason for the increase in security

○ Reductions in transaction costs

○ Improvements to overland routes

○ Less war

○ More sophisticated techniques for distributing goods

12..In paragraph 5, the author mentions the transport innovations of the carrack and Hesse carts in order to

○ provide examples of wartime inventions that were adapted for use in industry

○ explain how knowledge of more efficient organizational forms was spread

○ provide reasons for the decline in transaction costs

○ identify innovations that led to falling interest rates

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

For example, during this period, international investment in Switzerland rapidly expanded after the country was flooded by skilled workers fleeing religious persecution in Italy and France.

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

Paragraph 3：The supply of goods was also significantly modified. ■ Migration had long been critical for the (diffusion) of knowledge that spawned new trades or revived others. Now thousands of workers, and sizeable amounts of capital, moved from one region to another. ■ At the same time, new commodities appeared on the market, often broadening and deepening demand. ■ Most were inexpensive items destined for individual consumers. ■ Knitted stockings, ribbon and lace, buttons, starch, soap, vinegar brewed from beer, knives and tools, pots and ovens, and many more goods, formerly made only for local sale, now entered into channels of national or international trade. The best-known and most widely adopted new industry was printing with movable type, which spread swiftly throughout Europe after Johannes Gutenberg (perfected) his innovation in 1453. Despite isolated cases of resistance the scribes' guild (an association of book copiers) delayed printing's introduction into Paris for twenty years, for example more than 380 working presses had sprung up by 1480, and 1,000 (in nearly 250 towns) by 1500. Between 1453 and 1500, all the presses of Europe together turned out some 40,000 editions (known as incunabula), but from 1501 to 1600, that same quantity was produced in Lyon and Paris alone.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Industrial development was stimulated by rising incomes and growing populations especially in market-dependent urban centers and by government support for certain industries.

○ With increased mobility of labor and capital, more and more goods especially inexpensive consumer goods were produced for wide distribution rather than being limited to local markets.

○ Numerous technological innovations that could be applied to the manufacture of consumer goods grew out of the weapons industry that had developed in Germany, Li¨¨ge, and Milan.

○ Industrial development was limited in some areas due to the high costs of transportation, labor, and rents, and because of the localized nature of industrial knowledge.

○ New industries that manufactured goods for individual consumers were able to keep prices low in large part because of new technologies designed to accommodate economies of scale.

○ Lower prices for manufactured goods were the result of lower interest rates; of improvements in transportation, security, and organization; and of innovations in metal-making, mining, and printing.

Mesopotamian and Egyptian Settlement Patterns（17年3月考过，4月又考过）

Paragraph 1：On the basis of available evidence, there existed in ancient state-level societies a variety of urban types. These have been classified under a number of different headings, ranging from city-states to territorial- or village-states. Mesopotamia and Egypt, for example, traditionally represent the two opposing extremes along a spectrum of possible settlement distributions and types.

1..According to paragraph 1, which of the following best describes how ancient societies were organized

○Ancient societies were classified as either city-states or village-states.

○Most ancient societies started out as city-states and then became territorial- or village-states.

○With the exception of Mesopotamia and Egypt, ancient societies were generally not urbanized.

○Ancient societies likely followed a number of different urban settlement patterns.

Paragraph 2：【Mesopotamian city-state systems were made up of densely populated urban areas that shared a common language, status symbols, and economic systems, but their elites tended to compete with each other, often militarily, to control territory, trade routes, and other resources.】 Each city-state controlled a relatively small territory, often only a few hundred square kilometers, and had its own capital city, which in many cases was enclosed by a wall. In addition to its capital, a city-state might govern a number of smaller centers, as well as numerous farming villages and hamlets. Ancient Sumer is a classic example of such a system.

2..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.

○Although composed of very similar societies, Mesopotamian city-states were also characterized by conflicts among elites over trade, territory, and resources.

○City-states that shared a common language, status symbols, and economic systems were more likely to compete militarily than were other city-states.

○Most military conflicts among Mesopotamian city-states were about economic issues, such as territory or trade routes, but some were over the status symbols of elites.

○Despite the military control of elites, Mesopotamian city-states tended to compete with each other.

3..The author mentions Ancient Sumer as an example of

○an unusual settlement that differed from the classic city-state

○a small farming village under the control of a large city

○a city-state consisting of a capital and outlying settlements

○a city-state that was particularly small in size for Mesopotamia

Paragraph 3：In ancient Mesopotamia, urban centers tended to be relatively large, with populations ranging from less than 1,000 to more than 100,000 inhabitants, depending on the ability of a particular city-state to control and collect payments from its neighbors. Often, a considerable number of farmers lived in these centers to secure greater protection for themselves and their possessions. It is estimated that in southern Mesopotamia (circa 2900¨C2350 BC) more than 80 percent of the total population lived in cities.

4..According to paragraph 3, what determined the size of an urban center in ancient Mesopotamia

○The number of people defending it

○The amount of available space between the city and its nearest neighbor

○The extent of its political and economic enforcement power over its neighbors

○The number of farmers and the amount of food they produced

Paragraph 4：These cities also supported craft production, which sought to satisfy the demands of the urban elite and society as a whole. The development of craft specialization and commercial exchanges between town and countryside as well as between neighboring urban centers encouraged the growth of public markets. Although the evidence for actual marketplaces is less than clear for southern Mesopotamia, the (remnants) of shop-lined streets indicate vigorous commercial activity involving large numbers of people. This activity in turn promoted competition among city-states to obtain supplies of (exotic) raw materials. As a result of widespread access to goods produced by full-time specialists and the development of more intensive agriculture close to urban centers, Mesopotamian city-states were able to support numerous nonfood producers, possibly as high a proportion as 20 percent of the total population.

5..The word remnants in the passage is closest in meaning to

○remains

○locations

○number

○existence

6..According to paragraph 4, which of the following is NOT true of commercial activity in ancient Mesopotamia

○Perhaps 20 percent of the population was involved in commercial activity rather than food production.

○Commercial exchanges took place not only between urban and rural areas, but also between cities.

○Although most urban centers had marketplaces, the largest ones were located in southern Mesopotamia.

○Goods were plentiful and widely available to inhabitants of Mesopotamian cities.

7..The word exotic in the passage is closest in meaning to

○high-quality

○popular

○diverse

○foreign

Paragraph 5：In contrast to Mesopotamia, ancient Egypt's population has traditionally been perceived as more evenly dispersed across the landscape, a characteristic of village-states. Topography and the formation of the early state were the major factors contributing to this dispersal. Unlike Mesopotamia, Egypt had relatively secure and defined borders, allowing a single state to (dominate) the area. Additionally, the villages and towns of Egypt, all of which were situated near the Nile on the river's narrow flood plain, had approximately equal access to the river and did not have to compete among themselves for water as their contemporaries in Mesopotamia were forced to do. As the main highway through Egypt, the Nile offered innumerable harbors for shipping and trading, so there was no strong locational advantage to be gained in one area as opposed to another; hence the Egyptian population generally remained dispersed throughout the valley and delta in low densities. Trade specialists apparently were evenly spread throughout Egypt, supported by both independent workshops in small towns and royal patronage in the territorial capitals. In contrast to the defensive walls of Mesopotamian city-states, the walls of Egyptian towns primarily defined and delineated sections of the town (for example, a temple precinct from a residential area).

8..The word dominate in the passage is closest in meaning to

○enclose

○control

○protect

○acquire

9..In paragraph 5, why does the author provide the information that all Egyptian villages and towns were located near the Nile and had equal access to the river

○To explain why flooding was a frequent problem for the Egyptian people

○To identify a contributing cause of the dispersal of Egypt's population

○To support the claim that Egypt had well-defined borders

○To demonstrate the similarity between Egyptian and Mesopotamian settlement patterns

10..According to paragraph 5, the primary purpose of city walls in ancient Egypt was to

○distinguish territorial capitals from other urban areas

○prevent the city's population from becoming too spread out

○protect the city from outside attack

○separate parts of the city designated for different uses

Paragraph 6：Egypt, however, was not without urban centers. At points where goods entered the Nile valley via maritime routes or overland routes from the Red Sea via wadis (stream beds that remain dry except during the rainy season), the right circumstances existed for the growth of larger cities. Egyptian cities and towns shared certain characteristics with other (contemporary societies) but also displayed unique traits influenced by the culture and environment of the Nile valley. Thus, the geopolitical system that evolved in ancient Egypt was different from that of Mesopotamia; Egypt developed a village or territorial state characterized by dispersed settlements of varying size, a form of urbanism that gave Egypt its distinctive identity.

11..Paragraph 6 suggests that Egypt's urban centers were located near stream beds called wadis because these areas

○had the most fertile soil

○provided opportunities for trade

○had increased their water supplies

○could easily be protected from invaders

12..The phrase contemporary societies in the passage means societies that

○existed at the same time

○were located in the same region

○were the same size

○had the same resources

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

For example, Egypt's capital, Memphis, was located at a strategic point near the mouth of the Nile and grew to be one of the largest settlements of its time.

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

Paragraph 6：Egypt, however, was not without urban centers. ■At points where goods entered the Nile valley via maritime routes or overland routes from the Red Sea via wadis (stream beds that remain dry except during the rainy season), the right circumstances existed for the growth of larger cities. ■Egyptian cities and towns shared certain characteristics with other (contemporary societies) but also displayed unique traits influenced by the culture and environment of the Nile valley. ■Thus, the geopolitical system that evolved in ancient Egypt was different from that of Mesopotamia; Egypt developed a village or territorial state characterized by dispersed settlements of varying size, a form of urbanism that gave Egypt its distinctive identity.■

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○Mesopotamia was characterized by large, densely-populated urban centers, while the population of Egypt was more evenly distributed across the Nile valley.

○Unlike Mesopotamian city-states, which were culturally and economically distinct, Egyptian villages and towns shared a common language and economy.

○While defense was crucial in Mesopotamian cities due to competition for territory, trade routes, and raw materials, it was less important in Egypt.

○Once they realized that craft production was more profitable than crop production, many Mesopotamians moved from rural to urban areas.

○Differences in settlement patterns help to explain why the Egyptian central government survived and the Mesopotamian city-states did not.

○Trade specialists were evenly spread throughout Egypt, while Mesopotamia's vibrant commercial trade was concentrated in its large urban centers.

Extinctions at the End of the Cretaceous（17年4月和5月又考到）

Paragragh 1: It has long been recognized that the dinosaurs disappeared from the fossil record at the end of the Cretaceous period (65 million years ago), and as more knowledge has been gained, we have learned that many other organisms disappeared at about the same time. The microscopic plankton (free-floating plants and animals) with calcareous shells suffered massively. The foundation of the major marine food chain that led from the minute plankton to shelled animals to large marine reptiles had collapsed.

1..The word recognized in the passage is closest in meaning to

○ suspected

○ argued

○ assumed

○ accepted

2..According to paragraph 1, which of the following was true of small planktonic organisms at the end of the Cretaceous

○ They lost their main sources of food.

○ They developed calcareous shells.

○ They decreased greatly in number as did many other types of organisms.

○ They replaced other minute organisms as a food source in the major marine food chain.

Paragraph 2: On land it was not only the large animals that became extinct. The mammals, most of which were small, lost some 35 percent of their species worldwide. Plants were also affected. For example, in North America 79 percent did not survive, and it has been noted that the survivors were often deciduous they could lose their leaves and shut down while others could survive as seeds. As in the sea, it seems that on the land one key food chain collapsed: the one with leaves as its basic raw material. These leaves were the food of some of the mammals and of the herbivorous dinosaurs, which in turn were fed on by the carnivorous dinosaurs. Furthermore, it is most likely that these large dinosaurs had slow rates of reproduction, which always increases the risk of extinction. Crocodiles, tortoises, birds, and insects seem to have been little affected. The two first named are known to be able to survive for long periods without food, and both can be scavengers (feed on dead material). Indeed, with the deaths of so many other animals and with much dead plant material, the food chain based on detritus would have been well-supplied. Many insects feed on dead material; furthermore, most have at least one resting stage in which they are very resistant to damage. In unfavorable conditions some may take a long time to develop: there is a record of a beetle larva living in dead wood for over 40 years before becoming an adult. Some birds were scavengers, but the survival of many lineages is a puzzle.

3..Which of the following statements is NOT supported by the information provided in paragraph 2 about extinctions at the end of the Cretaceous

○ About 35 percent of mammal species were lost.

○ 79 percent of North American plants disappeared.

○ Most birds, tortoises, and crocodiles escaped extinction.

○ Deciduous trees were especially likely to go extinct.

4..According to paragraph 2, which of the following factors probably contributed to the extinction of the dinosaurs

○ The length of time it took dinosaurs to reproduce

○ Large quantities of dead material disturbing their habitats

○ Increased competition for food from scavengers

○ An increase in carnivore populations

5..In paragraph 2, why does the author provide the information that there is a record of a beetle larva living in dead wood for over 40 years before becoming an adult

○ To help explain why insects were less likely to go extinct than other species

○ To show that not all species that relied on trees disappeared during the late Cretaceous

○ To suggest that insects that lived long ago had much longer life spans than those living today

○ To support the claim that conditions at the end of the Cretaceous were highly unfavorable

Paragragh 3: What happened in the biological story just after these extinctions？ What is found in and just above the boundary layer between the deposits of the Cretaceous and those of the Tertiary (65¨C2.6 million years ago), termed the K/T boundary？ ■ For a very short period the dominant microorganisms in marine deposits were usually diatoms and dinoflagellates (both single-celled types of plankton). ■ The important feature for the survival of both these groups was the ability to form protective cysts (sacs around organisms) that rested on the sea floor. Above these, in the later deposits, are the remains of other minute plankton, but the types are quite different from those of the Late Cretaceous. ■ In terrestrial deposits a sudden and dramatic increase in fern plant spores marks the boundary in many parts of the world; ferns are early colonizers of barren landscapes. The fern spike (sudden increase), as it is termed, has been found also in some marine deposits (such was the abundance of fern spores blown around the world), and it occurs in exactly the same layer of deposit where the plankton disappear. We can conclude that the major marine and terrestrial events occurred simultaneously.■

6..The word simultaneously in the passage is closest in meaning to

○ rapidly

○ repeatedly

○ at the same time

○ for different reasons

7..According to paragraph 3, which of the following is true of plankton after the extinctions at the end of the Cretaceous

○ Diatoms and dinoflagellates suddenly became very rare.

○ Single-celled types of plankton were replaced by more complicated microorganisms.

○ The plankton found in later deposits are closely related to single-celled Late Cretaceous microorganisms.

○ The only types of Late Cretaceous plankton to survive extinction were those protected by cysts.

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

【The fern spike (sudden increase), as it is termed, has been found also in some marine deposits (such was the abundance of fern spores blown around the world), and it occurs in exactly the same layer of deposit where the plankton disappear. 】

The fern spike is the term given to this sudden increase in the abundance of fern spores blown into the oceans around the world.

The sudden increase in fern spores occurred in exactly the same parts of the world where the plankton was disappearing.

Fern spores have even been found in some marine deposits from exactly the same layer as that showing the disappearance of the plankton.

Most marine deposits from around the world contain either plankton or a lot of fern spores but not both together in the same layer.

Paragragh 4: Many theories have been put forward for the extinction of the dinosaurs, but most of them can be dismissed. Since 1980 there have been more focused, but still controversy-ridden, investigations. In that year Louis and Walter Alvarez and colleagues from the University of California published their research on the amounts of various metals in the boundary between Cretaceous and Tertiary rocks (K/T boundary) in Italy, Denmark, and New Zealand. They had found, accidentally, that a rare metal, iridium, suddenly became very abundant exactly at the boundary and then slowly fell away. This phenomenon, known as the iridium spike, has now been identified in K/T boundary deposits in over a hundred other sites in the world. Iridium occurs in meteorites and volcanic material, but in the latter case it is accompanied by elevated levels of nickel and chromium. These other metals are not especially abundant at the K/T boundary. The Alvarezes concluded that the iridium spike was due to a large asteroid that struck Earth 65 million years ago.

9. The word dismissed in the passage is closest in meaning to

○ further explored

○ rejected

○ completely revised

○ replaced

10..The word elevated in the passage is closest in meaning to

○ high

○ varying

○ unusual

○ adequate

11..According to paragraph 4, what evidence is there that an asteroid hit Earth

○ The fact that the metals nickel and chromium were found at sites around the world

○ The presence in K/T boundary deposits of large amounts of a metal that is found in meteorites

○ The fact that iridium amounts decreased at the same time that the Cretaceous ended and the Tertiary began

○ The differences in the types of metals found in deposits in Italy, Denmark, and New Zealand

12..Paragraph 4 suggests which of the following about the Alvarezes' theory

○ Their theory was accepted until 1980, when more focused investigations showed it to be incorrect.

○ It rules out the possibility that the iridium spike was the result of volcanic activity.

○ Before it can be accepted, more evidence must be gathered from locations outside Europe and New Zealand.

○ Experts believe the research done by the Alvarezes was too broad.

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

This change in plankton found in marine deposits is what marks the boundary between the Cretaceous and the Tertiary.

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

What happened in the biological story just after these extinctions？ What is found in and just above the boundary layer between the deposits of the Cretaceous and those of the Tertiary (65¨C2.6 million years ago), termed the K/T boundary?【A】 For a very short period the dominant microorganisms in marine deposits were usually diatoms and dinoflagellates (both single-celled types of plankton). 【B】 The important feature for the survival of both these groups was the ability to form protective cysts (sacs around organisms) that rested on the sea floor. Above these, in the later deposits, are the remains of other minute plankton, but the types are quite different from those of the Late Cretaceous.【C】 In terrestrial deposits a sudden and dramatic increase in fern plant spores marks the boundary in many parts of the world; ferns are early colonizers of barren landscapes. The fern spike (sudden increase), as it is termed, has been found also in some marine deposits (such was the abundance of fern spores blown around the world), and it occurs in exactly the same layer of deposit where the plankton disappear. We can conclude that the major marine and terrestrial events occurred simultaneously.【D】

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Aside from the dinosaurs, most of the organisms affected were very small, such as single-celled plankton and insects.

○ Herbivores and carnivores were both affected, but the hardest-hit group was the scavengers, including many birds and some mammals.

○ Two major food chains were eliminated, one in the oceans based on plankton, and one on land based on leaves.

○ Examinations of marine and terrestrial deposits show clearly that ocean extinctions occurred well before those on land.

○ In geological samples from around the world, the K/T boundary is marked by a sudden change in plankton and by a spike in fern spores.

○ Sudden, high levels of iridium found at the K/T boundary suggest that a meteorite might have caused the extinctions.

Early Modern Industrialization:

Early Modern Industrialization答案:C B A C B B C B C B C C B ABF

Mesopotamian and Egyptian Settlement Patterns

Mesopotamian and Egyptian Settlement Patterns答案：D A C C A; C D B B D; B A B (AEF)

Extinctions at the End of the Cretaceous

Extinctions at the End of the Cretaceous答案：D C D A D; C D C B A; B B C CEF

第14套

Gondwana

Paragragh 1: Among the (enduring) legacies of the famous European voyages of discovery in the eighteenth and nineteenth centuries are a collection and scientific description of plants and animals from around the world. These form the nucleus of the great collections in modern museums and have been responsible for a radical revision in the way that we perceive the structure of Earth and the forces that have shaped its surface over time. As the fauna and flora from far-flung lands came to be described and incorporated into the body of knowledge about the world, it was noted that there were some striking similarities among living and extinct organisms of the Southern Hemisphere continents.【In the 1840s, the English botanist Sir Joseph Dalton Hooker commented on the remarkable fact that the flora of South America and Oceania (mainly Australia, New Zealand, New Guinea, and the Malay Archipelago) shared seven families of flowering plants and 48 genera that were not to be found elsewhere. 】 Later, similar patterns were observed in other groups of plants and animals, such as liverworts, lichens, mayflies, midges, and various types of vertebrates. How could these similarities be explained in view of the enormous stretches of ocean that separate the Southern Hemisphere continents today One idea developed during the late nineteenth century was that there existed in the remote geological past a vast Southern Hemisphere continent in other words, that the modern continents of the Southern Hemisphere were somehow connected long ago, thus explaining the similarities in fauna and flora.The name given to this hypothetical continent was Gondwana.

1..The word enduring in the passage is closest in meaning to

○ exciting

○ lasting

○ unexpected

○ well-known

2..Why does the author mention the enormous stretches of ocean that separate the Southern Hemisphere continents today

○ To emphasize the importance of the famous European voyages of discovery in the eighteenth and nineteenth centuries

○ To suggest a reason why so many genera of flowering plants are found only in the Southern Hemisphere

○ To question the accuracy of Sir Joseph Dalton Hooker's observations about the similarities between the flora of Australia and that of South America

○ To explain why the similarities between flora pointed out by Sir Joseph Dalton Hooker seemed so remarkable

3.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.

○ The similarities in fauna and flora across Southern Hemisphere continents were explained in the late nineteenth century.

○ In the nineteenth century it was discovered that the Southern Hemisphere continents contain fauna and flora that are highly similar.

○ In the nineteenth century, it was suggested that the modern continents of the Southern Hemisphere were once connected.

○ The fauna and flora of the modern continents of the Southern Hemisphere were found to be very similar in the late nineteenth century.

Paragragh 2: One of the most distinctive fossil plants of this hypothetical continent is called Glossopteris. ■When first described by the French paleobotanist Adolphe Brongniart in 1828, Glossopteris was thought to be a type of fern. ■Now, however, it is known to be a woody seed-bearing shrub or tree. ■The trunks of Glossopteris could reach 4 meters in height.■ Seeds and pollen-containing organs were borne in clusters at the tips of slender stalks attached to the leaves, but some species may have borne seeds in cones. It is thought that Glossopteris lived in a seasonal environment, and this is consistent with the occurrence of growth rings in the wood. Also, there is evidence that the plant was deciduous (that is, that it shed its leaves annually at the end of the growing season) and that it grew under very wet soil conditions, like the modern swamp cypress. The large leaves of Glossopteris which exceeded 30 centimeters in length are common fossils in rocks of the Permian period (299¨C251 million years ago) in India, Africa, South America, Australia, and Antarctica.

4..In paragraph 2, the author discusses Glossopteris in order to

○ provide an example of a fossil species that was attributed to Gondwana on the basis of its wide distribution

○ explain why the descriptions of ancient plants made by Adolphe Brongniart were not completely accurate

○ establish the importance of nineteenth-century paleobotanist Adolphe Brongniart

○ show that similarities among flora in the Southern Hemisphere continents were not limited to flowering plants

5..According to paragraph 2, current evidence indicates that Glossopteris had all of the following characteristics EXCEPT:

○ It was deciduous.

○ It was a type of fern.

○ It had large leaves.

○ It grew in wet soil conditions.

6..According to paragraph 2, what suggests that Glossopteris may have lived in a seasonal environment

○ It grew in what is now Antarctica.

○ It was a seed-bearing plant.

○ There is evidence that it lost its leaves annually.

○ There were stalks attached to its leaves.

Paragragh 3: At the time the Gondwana hypothesis was conceived, the (prevailing) theory of Earth saw continents as fixed in their relative positions. The problem of linking up the various elements of Gondwana was solved by hypothesizing the existence of ancient land bridges. This changed in 1912 with the proposal of the theory of continental drift by the German meteorologist and geophysicist Alfred Wegener, an idea that was later developed and championed by the famous South African geologist Alex Logan du Toit. Wegener and du Toit argued that the continents are not fixed; rather, they have moved apart or drifted to their present-day positions. In the past, Gondwana was a single contiguous landmass comprising the present-day Southern Hemisphere continents.

7..The word prevailing in the passage is closest in meaning to

○ best understood

○ most controversial

○ generally accepted

○ recently proposed

8..According to paragraph 3, why did geologists initially hypothesize the existence of ancient land bridges across continents

○ To explain how the continents may have drifted to their present-day positions

○ To explain how organisms could spread across distant continents

○ To argue against Wegener's theory of continental drift

○ To help explain the present-day positions of the Southern Hemisphere continents

9..According to paragraph 3, what did Alfred Wegener and Alex Logan du Toit have in common

○ Both were originally trained as meteorologists.

○ Both had doubts about the hypothesis that Gondwana was once a single contiguous landmass.

○ Both believed that continents change their position over time.

○ Both believed that the present-day Southern Hemisphere continents were too far apart to have been linked by a land bridge.

Paragragh 4: These ideas seemed (incredible) at the time, but in support of their theory Wegener and du Toit pointed to similarities in fauna and flora, and the distributions of fossils such as Glossopteris provided an important piece of evidence in the assembly of the Gondwana jigsaw puzzle. Wegener and du Toit also drew together other different sources of evidence, such as the remarkable geometric fit of South America and Africa, and similarities between the ages and types of rock found in areas of Southern Hemisphere continents that are now thousands of miles apart. The notion of drifting continents only became widely accepted in the 1960s following the discovery of paleomagnetism (the study of changes in the polarity of Earth's magnetic field through time) and the development of the theory of plate tectonics, which explained the growth and movement of continents and other geological phenomena.

10..The word incredible in the passage is closest in meaning to

○ unfamiliar

○ unsupported

○ hard to understand

○ impossible to believe

11..According to paragraph 4, Wegener and du Toit offered all of the following evidence in support of their hypothesis EXCEPT

○ distributions of fossils across the Southern Hemisphere continents

○ the geometric fit of South America and Africa

○ similarities in rocks across the Southern Hemisphere continents

○ differences in geological phenomena across the Southern Hemisphere continents

12..Paragraph 4 strongly suggests that the theory of continental drift was not widely accepted before the 1960s in part because

○ the distributions of fossils such as Glossopteris were not yet generally known

○ other explanations for the geometric fit of South America and Africa were available

○ there was no satisfactory explanation for the movement of continents

○ few scientists accepted the claims made by Wegener and du Toit about the similarities in the ages of groups of rocks

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

This led to its name, which means tongue fern in Greek and is a reference to its tongue-shaped leaves.

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

Paragragh 2: One of the most distinctive fossil plants of this hypothetical continent is called Glossopteris. ■When first described by the French paleobotanist Adolphe Brongniart in 1828, Glossopteris was thought to be a type of fern. ■Now, however, it is known to be a woody seed-bearing shrub or tree. ■The trunks of Glossopteris could reach 4 meters in height.■ Seeds and pollen-containing organs were borne in clusters at the tips of slender stalks attached to the leaves, but some species may have borne seeds in cones. It is thought that Glossopteris lived in a seasonal environment, and this is consistent with the occurrence of growth rings in the wood. Also, there is evidence that the plant was deciduous (that is, that it shed its leaves annually at the end of the growing season) and that it grew under very wet soil conditions, like the modern swamp cypress. The large leaves of Glossopteris which exceeded 30 centimeters in length are common fossils in rocks of the Permian period (299¨C251 million years ago) in India, Africa, South America, Australia, and Antarctica.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ The plants and animals collected during the eighteenth- and nineteenth-century voyages of discovery made it possible to advance important scientific theories.

○ By 1828, fossils of Glossopteris had been discovered to have inhabited both the Northern and Southern Hemisphere continents in the remote geological past.

○ To explain the observed distribution patterns of flora and fauna, scientists hypothesized that land bridges had linked the widely separated Southern Hemisphere continents in the geological past.

○ The theory of continental drift, proposed in 1912, held that the Southern Hemisphere continents once formed an unbroken landmass and subsequently moved apart to their present locations.

○ To support their hypothesis that continents are not fixed in their relative positions, Alfred Wegener and Alex Logan du Toit used paleomagnetic evidence to develop the theory of plate tectonics.

○ Continental drift explained the distribution of organisms as well as the similarities in rocks and the geometric fit of Africa and South America, but the theory was not generally accepted until the 1960s.

Removing Dams（17年3月4日又考过一次）

Paragraph 1

For nearly a century, two United States governmental agencies, the United States Army Corps of Engineers and the Bureau of Reclamation, have constructed dams to store water and to generate electricity. Building these dams provided cheap electricity, created jobs for workers, stimulated regional economic development, and allowed farming on lands that would otherwise be too dry. But not everyone agrees that big dam projects are entirely beneficial. Their storage reservoirs stop the flow of rivers and often submerge towns, farms, and historic sites. They prevent fish migrations and change aquatic habitats essential for native species.

1. According to paragraph 1, building dams was beneficial in each of the following ways EXCEPT

A. increasing the amount of land that could be used for farming

B. strengthening local economies

C. increasing the availability of low-cost electricity

D. expanding the aquatic habitats of native species

Paragraph 2

The tide may have turned, in fact, against dam building. In 1998 the Army Corps announced that it would no longer be building large dams. In the few remaining sites where dams might be built, public opposition is so great that getting approval for projects is unlikely. Instead, the new focus may be on removing existing dams and restoring natural habitats. In 1999 Bruce Babbitt, then the United States interior secretary, said, Of the 75,000 large dams in the United States, most were built a long time ago and are now obsolete, expensive, and unsafe. They were built with no consideration of the environmental costs. As operating licenses come up for renewal, dam removal and habitat restoration to original stream flows will be among the options considered.

2. According to paragraph 2, the likelihood that new dams will be built has decreased because

A. construction costs have increased enormously

B. safety standards have become much higher

C. public opposition to dam construction has increased

D. at most suitable sites an existing dam would have to be removed first

3. The word obsolete in the passage is closest in meaning to

A. unpopular

B. inefficient

C. out of date

D. unnecessary

4. Paragraph 2 supports which of the following ideas about operating licenses for large dams

A. Since 1999 licenses have been renewed only for small dams.

B. Before 1999, owners applying for a license renewal were more likely to have their applications approved than they were after that date.

C. Strong public opposition to their renewal was common even before 1999, but it was based on safety considerations, not on environmental ones.

D. The environmental cost of dams has been a minor consideration in license renewal applications since 1999.

Paragraph 3

The first active hydroelectric dam in the United States to be removed against the wishes of its owners was the 162-year-old Edwards Dam, on the Kennebec River in Augusta, Maine. For many years, the United States Fish and Wildlife Service had advocated the removal of this dam, which prevented migration of salmon, shad, sturgeon, and other fish species up the river. In a precedent-setting decision, the Federal Energy Regulatory Commission ordered the dam removed after concluding that the environmental and economic benefits of a free-flowing river outweighed the electricity generated by the dam. In July 1999 the dam was removed and restoration work began on wetlands and stream banks long underwater.

5. According to paragraph 3, why did the United States Fish and Wildlife Service want the Edwards Dam removed

A. Because the age of the dam made it unsafe

B. Because the dam was negatively affecting various species of fish

C. Because the dam had caused wetlands to form

D. Because the dam no longer provided economic benefits

6. Paragraph 3 suggests that one main consideration for keeping the Edwards Dam was

A. the electricity it generated

B. the length of time it had been in operation

C. the high cost of removing it

D. the fact that removing it would set a bad example

Paragraph 4

The next dams likely to be taken down are the Elwha and Glines Dams on the Elwha River in Olympic National Park in the state of Washington. Built nearly a century ago to provide power to lumber and paper mills in the town of Port Angeles, these dams blocked access to upstream spawning beds for six species of salmon on what once was one of the most productive salmon rivers in the world. Simply removing the dams will not restore the salmon, however. [A] Where 50-kilogram king salmon once fought their way up waterfalls to lay their eggs in gravel beds, there now are only concrete walls holding back still water and deep beds of muddy deposits. [B] Removing the mud, uncovering gravel beds where fish spawn, and finding suitable salmon types to rebuild the population is a daunting task. [C] Congress will have to appropriate somewhere around $300 to $400 million to remove these two relatively small dams and rehabilitate the area. [D]

7. According to paragraph 4, why would removing the Elwha and Glines dams not be enough to restore salmon to the Elwha River

A. They are not the only dams on the Elwha River.

B. The lumber and paper mills in Port Angeles also block access to upstream spawning beds.

C. Too many species of salmon are competing for survival in one river.

D. The dams have left the river's spawning beds in an unusable condition.

8. The word suitable in the passage is closest in meaning to

A. new

B. healthy

C. appropriate

D. similar

Paragraph 5

Environmental groups, encouraged by these examples, have begun to talk about much more ambitious projects. Four giant dams on the Snake River in Washington State, for example, might be removed to restore salmon and steelhead fish runs to the headwaters of the Columbia River. The Hetch Hetchy Dam in Yosemite National Park might be taken down to reveal what John Muir, the founder of the prestigious environmental organization Sierra Club, called a valley just as beautiful and worthy of preservation as the majestic Yosemite. Some groups have even suggested removing the Glen Canyon Dam on the Colorado River. In each of these cases, powerful interests stand in opposition. These dams generate low-cost electricity and store water that is needed for agriculture and industry. Local economies, domestic water supplies, and certain types of recreation all would be severely impacted by destruction of these dams.

9. The word ambitious in the passage is closest in meaning to

A. impressive but difficult to achieve

B. dangerous and require considerable planning

C. complex and unlikely to be completed

D. greatly needed

10. According to paragraph 5, why do environmental groups want the Hetch Hetchy Dam removed

A. To restore salmon and steelhead runs to the Snake River

B. To allow access to the headwaters of the Columbia River

C. To increase the size of Yosemite National Park

D. To restore a valley to its original beauty

Paragraph 6

How does one weigh the many different economic, cultural, and aesthetic considerations for removing or not removing these dams? Do certain interests, such as the rights of native people or the continued existence of native species of fish or wildlife, take precedence over economic factors; or should this be a utilitarian calculation of the greatest good for the greatest number? And does that number include only humans or do other species count as well?

11.The phrase take precedence over in the passage is closest in meaning to

A. affect

B. have greater importance than

C. get included among

D. minimize

12. What is the role of paragraph 6 in the passage

A. To propose a method for deciding whether a given dam should be removed

B. To emphasize the complexity of the issues involved in deciding what should be done about dams

C. To suggest that the recent tendency not to build new dams may be wrong

D. To sum up the points made earlier in the passage about the advantages and disadvantages of removing dams

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

But aside from the technical challenges, the project will also pose a serious financial challenge.

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

The next dams likely to be taken down are the Elwha and Glines Dams on the Elwha River in Olympic National Park in the state of Washington. Built nearly a century ago to provide power to lumber and paper mills in the town of Port Angeles, these dams blocked access to upstream spawning beds for six species of salmon on what once was one of the most productive salmon rivers in the world. Simply removing the dams will not restore the salmon, however. [A] Where 50-kilogram king salmon once fought their way up waterfalls to lay their eggs in gravel beds, there now are only concrete walls holding back still water and deep beds of muddy deposits. [B] Removing the mud, uncovering gravel beds where fish spawn, and finding suitable salmon types to rebuild the population is a daunting task. [C] Congress will have to appropriate somewhere around $300 to $400 million to remove these two relatively small dams and rehabilitate the area. [D]

14. Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. Until recently, the emphasis in dam building was on the economic benefits of low-cost energy and water that dams provided, but more attention is now being paid to the damage they cause.

B. Since the late 1990s, the government has stopped building large dams, instead focusing on removing existing dams and restoring natural habitats.

C. Environmental groups now have a very good chance of forcing the removal of two major dams, the Glen Canyon Dam on the Colorado and the Hetch Hetchy Dam in Yosemite.

D. Until recently, the main reason for removing dams was to restore salmon runs, but it is now recognized that a more important reason to remove dams is that they are no longer safe.

E. The removal of dams remains controversial because of high restoration costs, loss of low-cost electricity, and the loss of water storage facilities.

F. Although the U.S. government originally planned to remove the Elwha and Glines Dams in Washington, the enormous expense of removal has resulted in a postponement of this effort.

Olmec Art

Paragragh 1: The earliest Mesoamerican art and architecture to combine ideological complexity, craft, and permanence was (that) of the Olmecs, whose civilization flourished between about 1500 B.C. and 100 B.C. The early Olmecs established major ceremonial centers along the rich lowlands of the modern Mexican states of Veracruz and Tabasco. At distant Teopantecuanitlan, the Olmecs established a sacred precinct, the first monumental evidence of the Olmecs in the highlands. But the Olmecs had an advanced social and economic system, with networks for commerce extending far to the west and south. The fertile gulf plain probably allowed for an agricultural (surplus), controlled by only a handful of individuals. From the art and architecture of their ceremonial centers (we know too little about Olmec domestic life to call their sites cities), it is clear that for the Olmecs, social stratification was sufficiently advanced for their society to place great importance on the records of specific individuals, particularly in the form of colossal heads (enormous stone sculptures of human heads and faces).

1..The word that in the passage refers to

○ Mesoamerican art and architecture

○ the ideological complexity, craft, and permanence

○ the earliest civilization

○ the permanent art and architecture

2..The word surplus in the passage is closest in meaning to

○ advantage

○ excess quantity

○ system

○ supply

3..According to paragraph 1, which of the following is true about the ceremonial centers established by the Olmecs

○ The centers served as the burial places of ancient Olmec rulers.

○ The inhabitants of each center had little or no contact with those in other centers.

○ The centers featured major works of art and architecture that were made to last.

○ The first and most important centers were built in the highlands.

4..Paragraph 1 supports which of the following ideas about Olmec society

○ Major artists and successful traders had roughly equal status.

○ The most important members of Olmec society resided in the highlands.

○ More people were engaged in producing monumental works of art than were engaged in agriculture.

○ There was a well developed social structure in which some individuals held more power than others.

Paragragh 2: Long before modern radiocarbon dating testified to the antiquity of this culture, archaeologists and art historians had become aware of the power of Olmec art through individual objects. ■ Some even identified the Olmec culture as the oldest of Mesoamerican civilizations, perhaps a mother culture from which all others derived, as the art historian Miguel Covarrubias once thought. ■ Eventually the antiquity of Olmec culture was confirmed, and today many important elements of Mesoamerican art and architecture can be seen to have had a probable Olmec origin: ball courts, pyramids, portraiture, and mirrors. ■ Some later Mesoamerican deities probably derive from Olmec gods, and even the famous “Maya” calendar was already in use by peoples in the Olmec area at the dawn of Maya civilization. ■

5..The author put the word Maya in quotation marks in order to indicate that

○ few Mesoamericans were familiar with the Maya calendar

○ the calendar commonly attributed to the Maya was not actually developed by them

○ the names of Mesoamerican gods were included in the Maya calendar

○ it is doubtful that the Olmec and the Maya used the same calendars

6..According to paragraph 2, how was the antiquity of Olmec culture confirmed

○ Through close study of the Maya calendar

○ By archaeologists' success at tracing later Mesoamerican gods back to those of the Olmec

○ By radiocarbon dating of Olmec objects

○ By comparing different references to an ancient mother culture

Paragragh 3: One of the first important Olmec objects to come to modern attention was the Kunz axe, acquired in the 1860s in Oaxaca, Mexico. 【The ceremonial axe puzzled and intrigued investigators for years because on the one hand, it was clearly neither Aztec nor Maya, the best-known ancient Mesoamerican cultures, and in fact it had no features that could be linked with any known civilization, while on the other hand, it had surely been made in Mesoamerica in antiquity.】

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.

○ Because the Kunz axe could not be linked with known Mesoamerican cultures of antiquity, investigators concluded that it was neither Aztec nor Maya.

○ The ceremonial axe puzzled and intrigued investigators because it was neither Aztec nor Maya, nor was it from any other ancient Mesoamerican civilization.

○ On the one hand the ceremonial axe was puzzling because it was not Aztec or Maya, and on the other hand it was intriguing because no other Mesoamerican culture made ceremonial axes.

○ The Kunz axe puzzled investigators for years because, although it was clearly made in ancient Mesoamerica, it could not be attributed to any known Mesoamerican culture.

Paragragh 4: The axe (exhibits) many qualities of the style we now call Olmec: precious blue-green translucent jade, worked to reveal a figure in both two and three dimensions. More than half the axe is devoted to the creature's face an open, toothless mouth, and closely set, slanting eyes which has often been likened to the face of a howling human infant. The creature's hands are worked in lower relief, and in them he grasps a miniature version of himself. Feet and toes are indicated only by incision (carved lines), and incision also marks the face, ears, and upper body, perhaps to suggest tattooing, ear ornaments, and a tunic. For over two millennia this large, precious axe was presumably kept as a treasure or heirloom. It was not until 1955, after several seasons of excavation at La Venta had produced many fine jade objects and a convincing series of radiocarbon dates in the first millennium B.C., that objects such as the Kunz axe were at last understood by scholars to (embody) the principles of the first great art style of Mesoamerica.

8..The word exhibits in the passage is closest in meaning to

○ displays

○ includes

○ combines

○ introduces

9..The word embody in the passage is closest in meaning to

○ utilize

○ reveal

○ incorporate

○ clarify

10..It can be inferred from paragraph 4 that the author provides a very detailed description of the Kunz axe because

○ the Kunz axe is more like later Mesoamerican art than it is like Olmec art

○ the Kunz axe is a characteristic example of Olmec artistic style and principles

○ the Kunz axe is the single most important and valuable piece of Olmec art so far discovered

○ the face of the creature represented on the Kunz axe resembles a human infant

Paragragh 5: Early scholars of the Olmec style noticed a pattern of imagery repeated on many of the carved stone objects. Many howling baby faces were found, and other faces seemed to combine the features of humans and jaguars (large cats). Today, while the presence of jaguar imagery is still acknowledged, scholars have discovered that aspects of many other tropical rainforest fauna can be identified in the carvings. The caiman (a kind of alligator), eagle, toad, jaguar, and snake all appear in the Olmec supernatural repertoire. Anthropologist Peter David Joralemon has suggested that most of the motifs and images can be allocated to a few Olmec deities. The paw-wing motif, for example, can be shown to be an element of the winged dragon, itself perhaps derived from the eagle and caiman. This whole intricate symbolic code appears to have been in use from the first appearance of the Olmecs, and to have been employed consistently for a thousand years.

11..In paragraph 5, the author uses the example of the paw-wing motif in order to illustrate

○ how Olmec images may be related to a few Olmec deities

○ why jaguar imagery is the most important of Olmec animal imagery

○ the importance of the paw-wing motif in cultures before the Olmec

○ how images of animals from beyond the rainforest were represented in Olmec art

12..According to paragraph 5, which of the following is true about the Olmec symbolic code

○ It included only animals that have paws or wings.

○ It did not change significantly from one century to the next.

○ It was not strongly connected to Olmec religion.

○ It developed gradually over a thousand-year period.

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

But these opinions lacked proof.

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

Paragragh 2: Long before modern radiocarbon dating testified to the antiquity of this culture, archaeologists and art historians had become aware of the power of Olmec art through individual objects. ■ Some even identified the Olmec culture as the oldest of Mesoamerican civilizations, perhaps a mother culture from which all others derived, as the art historian Miguel Covarrubias once thought. ■ Eventually the antiquity of Olmec culture was confirmed, and today many important elements of Mesoamerican art and architecture can be seen to have had a probable Olmec origin: ball courts, pyramids, portraiture, and mirrors. ■ Some later Mesoamerican deities probably derive from Olmec gods, and even the famous “Maya” calendar was already in use by peoples in the Olmec area at the dawn of Maya civilization. ■

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

○ Between 1500 B.C. and 100 B.C., the Olmecs developed complex ceremonial centers, an extensive agricultural and trading economy, and a highly distinctive art.

○ Early in their history, the Olmec left the fertile gulf plain and moved to Teopantecuanitlan.

○ The frequent reappearance of Olmec images in the art of the Maya and Aztecs suggests that the Olmecs gave rise to these later civilizations.

○ The Kunz axe, once linked with Maya culture after being found at an ancient Maya site, was eventually attributed to Olmec artists.

○ Many cultural innovations are now attributed to the Olmecs that were once attributed to other Mesoamerican cultures, including the calendar used by the Maya.

○ Olmec art involved a complex symbolic code, including various animal images and the howling baby seen on the Kunz axe and elsewhere, that was used consistently for a thousand years.

Gondwana：

Gondwana： 1-5. B D B A B; 6-10. C C B C D; 11-14. D C B ACD

Removing Dams（17年3月4日考过）

Removing Dams：D C C B B; A D C A D; B B C ABE

Olmec Art:

Olmec Art答案: 1-5. A B C D B ; 6-10. C D A C B; 11-14. A B B AEF

第15套

**Thermal Stratification**

**Paragraph 1**

Physical characteristics of aquatic environments at different depths such as salt level, light, inorganic nutrients, degree of acidity, and pressure all play key roles in the distribution of organisms. One of the most important physical features is thermal stratification.

**Paragraph 2**

When solar radiation strikes water, some is reflected, but most penetrates the surface and is ultimately absorbed. Although water may appear transparent, it is much denser than air and absorbs radiation rapidn clear water, 99 percent of the solar radiation is absorbed in the upper 50 to 100 meters. Longer wavelengths of light are absorbed first; the shorter wavelengths (which have more energy) penetrate farther, giving the depths their characteristic blue color.

1. The word ultimately in the passage is closest in meaning to
2. probably
3. quickly
4. eventually
5. frequently
6. According to paragraph 2, which of the following is true about solar radiation when it strikes water
7. Longer wavelengths travel farther.
8. Most of it is absorbed near the surface.
9. It is not absorbed by cloudy water.
10. More long wavelengths than short wavelengths are absorbed.

**Paragraph 3**

This rapid absorption of sunlight by water has two important consequences. First, it means that photosynthesis the process by which plants use the energy of sunlight to produce the organic carbon compounds necessary for life can only occur in surface waters where the light intensity is sufficiently high. Species that produce their own organic carbon compounds are called primary producers, and they are the base of the marine food web. Virtually all of the photosynthesis that supports the rich life of oceans and lakes comes from plants living in the upper 10 to 30 meters of water. Along shores and in very shallow bodies of water, some species such as kelp are rooted to the bottom. These plants may attain considerable size and structural complexity, and may support diverse communities of organisms. In the open waters that cover much of the globe, however, the primary producers of organic carbon are tiny, often one-celled algae (called phytoplankton), which are suspended in the water. Zooplankton, tiny invertebrates that feed on phytoplankton, migrate vertically on a daily cycle: up into the surface waters at night to feed and down into the dark, deeper waters during the day to escape predatory fish that rely on light to detect prey.

1. The word virtually in the passage is closest in meaning to
2. Apparently
3. Usually
4. Nearly
5. Fortunately

4. According to paragraph 3, all of the following are true of kelp EXCEPT:

A. They are found at the bottom of shallow waters.

B. They are the primary producers of organic carbon.

C. They can grow very large.

D. They are a source of food for a variety of organisms.

5. The word suspended in the passage is closest in meaning to

A. dissolved

B. floating

C. invisible

D. released

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

A. Zooplankton move up into surface waters at night to feed on phytoplankton, and

down into deep, dark waters in daytime to avoid detection by predatory fish.

B. Zooplankton migrate vertically on a daily basis in order to feed on phytoplankton,

following them up into surface waters by day and down into dark, deeper waters at

night.

C. Unlike zooplankton, which migrate between surface waters and deeper waters,

predatory fish must rely on the daytime light of surface waters to detect prey.

D. Zooplankton are so tiny that they can only be detected by predatory fish in the light

conditions of surface water, where they feed on phytoplankton.

**Paragraph 4**

Second, the rapid absorption of sunlight by water means that only surface water is heated. The density of pure water is greatest at 4 degrees and declines as the water's temperature rises above or falls below this point. When solar radiation heats the water surface above 4¡ãC, the warm surface water becomes lighter than the cool, deeper water, and so tends to remain on the surface, where it may be heated further and become even less dense. In tropical areas and in temperate climates during the summer, the surfaces of oceans and lakes are usually covered by a thin layer of warm water. Unless these bodies of water are shallow, the deep water below this layer is much colder (sometimes near 4 degrees). The change in temperature between the warm surface water and the cold, deep water is called the thermocline. Mixing of the surface water by wave action determines the depth of the thermocline and maintains relatively constant temperatures in the water above it.

7. According to paragraph 4, what is a thermocline

A. The deep, cold layer of water below the surface of oceans and lakes

B. The thin layer of warm water on the surface of oceans and lakes

C. The change in density of surface water as it is continually heated

D. The point at which the temperature of water in oceans and lakes changes from warm to cold

**Paragraph 5**

Tropical lakes and oceans show pronounced permanent stratification of their physical properties, with warm, well-oxygenated, and lighted surface water giving way to frigid, dark, deep water almost devoid of oxygen. Oxygen cannot be replenished at great depths where there are no photosynthetic organisms to produce it, and the stable thermal stratification prevents mixing and reoxygenation by surface water. Only relatively few organisms can live in such extreme conditions. The waste products and dead bodies of organisms living in the surface waters sink to the depths, taking their mineral nutrients with them. The lack of vertical circulation thus limits the supply of nutrients to the phytoplankton above. Consequently, deep tropical lakes are often relatively unproductive and depend on continued input from streams for the nutrients required to support life.

8. The word replenished in the passage is closest in meaning to

A. absorbed

B. restored

C. contained

D. obtained

9. According to paragraph 5, all of the following are true of the water at great depths in tropical lakes EXCEPT:

A. It has less oxygen than the surface water does.

B. It is very dark.

C. It contains relatively few living organisms.

D. It has low levels of mineral nutrients.

**Paragraph 6**

The situation is somewhat different in temperate and polar waters. Deep lakes, in particular, undergo dramatic seasonal changes: they develop warm surface temperatures and a pronounced thermocline in summer, but freeze over in winter. Twice each year, in spring and fall, the entire water column attains equal temperature and equal density; moderate winds may then generate waves that mix deep and shallow water, producing what is called overturn. This semiannual mixing carries oxygen downward and returns inorganic nutrients to the surface. Phosphorus and other nutrients may be depleted during the summer; overturn replenishes these nutrients by stimulating the growth of phytoplankton.

10. The word dramatic in the passage is closest in meaning to

A. partial

B. complex

C. frequent

D. striking

11. According to paragraph 6, after overturn, deep water levels of lakes in temperate climates will contain increased amounts of

A. warm water

B. phosphorus

C. oxygen

D. phytoplankton

12. According to paragraphs 5 and 6, temperate lakes are in general more productive than tropical lakes because

A. temperate lakes receive more nutrients from incoming streams

B. the summer thermocline is relatively deep in temperate lakes

C. solar radiation penetrates more of the water in temperate lakes

D. temperate lakes experience vertical circulation of water

**Paragraph 2**

When solar radiation strikes water, some is reflected, but most penetrates the surface and is ultimately absorbed. [A] Although water may appear transparent, it is much denser than air and absorbs radiation rapidly. [B] In clear water, 99 percent of the solar radiation is absorbed in the upper 50 to 100 meters. [C] Longer wavelengths of light are absorbed first; the shorter wavelengths (which have more energy) penetrate farther, giving the depths their characteristic blue color. [D]

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

**If the water is clouded by many microscopic organisms, absorption occurs even closer to the surface.**

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

14. Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. Sunlight is rapidly absorbed by the upper layer of water, which makes it warmer and consequently less dense than the water below.

B. Photosynthesizing plants, which provide the food and oxygen for most other forms of aquatic life, are limited to the levels of oceans and lakes where sunlight is available.

C. The diversity of plant life in shallow water makes it attractive to zooplankton.

D. As water becomes less dense and moves to the surface of the ocean or lake, it cools down and moderates the temperature of the surface.

E. Because more solar energy is absorbed by bodies of water in the tropics, the topmost layer of the thermocline is widest there.

F. In the tropics, permanent thermal stratification limits the amount of life supported in deep bodies of water; however, in temperate climates, seasonal thermal stratification allows vertical circulation and mixing of water, allowing the support of more life.

**Live Performance**

**Paragraph 1**

Unlike video and cinema (although sometimes employing elements of both), the theater is a living, real-time event, with both performers and audience mutually interacting, each aware of the other's immediate presence. This turns out to be an extremely important distinction. Distinguished film stars, particularly those with theater backgrounds (as most have), routinely return to the live dramatic stage despite the substantially greater financial rewards of film work and invariably prefer stage acting because of the immediate audience response theater provides, with its corresponding sensations of excitement and presence.

1. The word distinction in the passage is closest in meaning to

A. idea

B. blend

C. definition

D. difference

2. Paragraph 1 makes which of the following points about theater and film

A. Theater audiences tend to be more critical than film audiences.

B. Actors in the theater are usually not as well-known as film actors.

C. Theater companies tend to pay more than film companies do for the most distinguished actors.

D. Audiences respond to actors differently in theater than in film.

3. Paragraph 1 suggests that the reason distinguished film stars return to live theater is that they

A. are able to command higher fees as well-known actors

B. enjoy the excitement of performing before a live audience

C. have great respect for theatrical drama as an art form

D. are dissatisfied with the roles they are offered in films and television

**Paragraph 2**

The first of these is the rapport existing between actor and audience. [A] Both are breathing the same air; both are involved at the same time and in the same space with the stage life depicted by the play. [B] Sometimes their mutual fascination is almost palpable; every actor's performance is affected by the way the audience yields or withholds its responses: its laughter, sighs, applause, gasps, silences. [C] Live theatrical performance is always a two-way communication between stage and house.[D]

4. The word rapport in the passage is closest in meaning to

A. excitement

B. balance

C. bond

D. fascination

**Paragraph 3**

Second, theater creates a relationship among the audience members. Having arrived at the theaters as individuals or in groups of two or three, the audience members quickly find themselves fused into a common experience with total strangers: laughing at the same jokes, empathizing with the same characters, experiencing the same revelations. This broad communal response is never developed by television drama, which is played chiefly to solitary or clustered viewers who (because of frequent commercial advertisements) are only intermittently engaged, nor is it likely to happen in movie houses, where audience members essentially assume a one-on-one relationship with the screen and rarely (except in private or group screenings) break out in a powerful collective response, much less applause. By contrast, live theatrical presentations generate audience activity that is broadly social in nature: the crowd arrives at the theater at about the same time, people mingle and chat during intermissions, and all depart together, often in spirited conversation about the play. Moreover, they communicate during the play: laughter and applause build upon themselves and gain strength from the recognition that others are laughing and applauding. The final ovation unique to live performance inevitably involves the audience applauding itself, as well as the performers, for understanding and appreciating the theatrical excellence they have all seen together. And plays with political themes can even generate collective political response. In a celebrated example, 1935s Waiting for Lefty was staged as if the audience were a group of union members; by the play's end the audience was yelling Strike! Strike! in response to the play's issues. Obviously, only a live performance could evoke such a response.

5. In paragraph 3, which of the following is mentioned as support for the statement that This broad communal response is never developed by television drama

A. Television drama is rarely about serious social issues.

B. People do not usually talk to each other while watching television.

C. Television audiences vary greatly in their interest in television dramas.

D. People do not typically watch television in large groups.

6. According to paragraph 3, movie house audiences are different from audiences at live theatrical performances because movie house audiences do not

A. enjoy humor and jokes as much as theater audiences do

B. develop broad communal responses

C. sympathize with the characters they see dramatized

D. generally applaud unless everyone else is applauding

7. Why does the author mention the play Waiting for Lefty

A. To illustrate the power of the communal response to plays

B. To argue that plays about political subjects have more power to evoke deep feelings in an audience than nonpolitical plays do

C. To provide an example of a play that was a popular success because it dealt with important political issues

D. To compare the political importance of plays in recent times with the political importance of earlier plays

**Paragraph 4**

Finally, live performance inevitably has the quality of immediacy. The action of the play is taking place right now, as it is being watched, and anything can happen. Although in most professional productions the changes that occur in performance from one night to another are so subtle that only an expert would notice, the fact is that each night's presentation is unique, and everyone present the audience, the cast, and those behind the scenes knows it. This awareness lends an excitement that cannot be achieved by theatrical events that are wholly in the can. One reason for the excitement, of course, is that in live performance, mistakes can happen; this possibility occasions a certain abiding tension, perhaps even an edge of stage fright, which some people say creates the ultimate thrill of the theater. But just as disaster can come without warning, so too can splendor. On any given night, each actor is trying to better his or her previous performance, and no one knows when this collective effort will coalesce into something sublime. The actors' constant striving toward self-transcendence gives the theater a vitality that is missing from performances fixed unalterably on videotape or celluloid. But perhaps most appropriately, the immediacy of live performance embodies the fundamental uncertainty of life. One prime function of theater is to address the uncertainties of human existence, and the very format of live performance presents a moment-to-moment uncertainty right before our eyes. Ultimately, this immediate theater helps us define the questions and confusions of our lives and lets us grapple, in the present, with their implications.

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

A. Although experts can detect the changes that occur in different performances, the

changes are too subtle to be noticed by anyone else.

B. Although their performances vary only subtly from one night to another, actors in

most professional productions want audiences to believe that every performance is

unique.

C. Everyone involved in the professional production of a play knows that very small,

almost unnoticeable changes make each performance unique.

D. In most professional productions, changes are included from one performance to

another that are intended to make every performance a unique one.

9. The word thrill in the passage is closest in meaning to

A. goal

B. weakness

C. meaning

D. excitement

10. The word vitality in the passage is closest in meaning to

A. style

B. energy

C. purpose

D. quality

11. According to paragraph 4, on any given night the result of actors' efforts to better their previous performances is that the actors

A. form long-lasting relationships with the audience

B. are better able to overcome their stage fright

C. create a quality that is not present in film or television

D. are more likely to be admired by audiences

12. It can be inferred from paragraph 4 that one of the reasons filmed performances are less exciting than live theatrical performances is because

A. there is little chance that a mistake will occur in a filmed performance

B. most movies portray situations that audiences have seen before

C. audiences are interested in seeing famous actors live rather than on a screen

D. most people are accustomed to going to the movies but view the theater as a special event

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

**Such signs of an audience's engagement thus become part of every performance.**

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

The first of these is the rapport existing between actor and audience. [A] Both are breathing the same air; both are involved at the same time and in the same space with the stage life depicted by the play. [B] Sometimes their mutual fascination is almost palpable; every actor's performance is affected by the way the audience yields or withholds its responses: its laughter, sighs, applause, gasps, silences. [C] Live theatrical performance is always a two-way communication between stage and house.[D]

14. Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

1. Although live theater is unlike either video or cinema, the different genres sometimes overlap.

B. While live theater is regarded by most film actors as the most exciting place to perform, many are too troubled by stage fright to perform live.

C. In the theater, there is a two-way communication between actor and audience that has an effect on the actor's performance.

D. Audiences at live theatrical performances form a special connection, sharing the common experience of reacting to a live theatrical performance.

E. Many people go to the theater excited to see in a live performance an actor that they have never seen before except on television or in films.

F. The excitement of live theater cannot be achieved in any other medium, and its immediacy and uncertainty help us deal with life's fundamental uncertainty.

**Earthquake Prediction（此篇17年3月25日考到了）**

**Paragraph 1**

Accurate prediction of earthquakes is not currently possible, although intensive research is proceeding in many areas.

**Paragraph 2**

Two types of earthquake prediction are theoretically possible. The first type is long-term forecasting, in which the probability of an earthquake along a particular segment of a within a certain time interval is calculated by studying seismic gaps and historical records of earthquakes that have occurred along that fault segment. By plotting the number of earthquakes within specific time intervals against their magnitudes, diagrams can be constructed for a local area. From this plot it is possible to determine the recurrence interval, or the average time interval between earthquakes of a specific magnitude. Predictions can then be made that an earthquake of that magnitude has a high probability of occurrence within a specified time interval, if the date of the last earthquake is known.

1.The word specified in the passage is closest in meaning to

A. probable

B. stated

C. short

D. typical

2. According to paragraph 2, all of the following information is used in the process of long-term earthquake prediction EXCEPT the

A. analysis of seismic gaps

B. record of past earthquakes in the fault area

C. date of the last recorded earthquake in the area

D. pattern of earthquake activity in other nearby fault segments

3. According to paragraph 2, long-term forecasting can be used to predict which of the following

A. The influence of earthquake activity in one segment of the fault area on other segments

B. The frequency with which earthquakes of a certain size will occur

C. The possible date of the next earthquake

D. The magnitude of the next earthquake

**Paragraph 3**

Research leading to short-term forecasting, which involves a shorter time interval, has been focused on precursors observed prior to previous earthquakes. Precursors are physical or chemical phenomena that occur in a typical pattern before an earthquake. These phenomena include changes in the velocity of seismic waves, the electrical resistance of rocks, the frequency of the usually minor preliminary earthquakes (foreshocks), the deformation of the land surface, and the water level or water chemistry of wells in the area. Many of these precursors can be explained by a theory called the dilatancy model. Under this hypothesis, rocks in the process of strain along a fault show significant dilation or swelling before rupture. This volume increase is caused by the opening of microcracks, which are minute failure zones in weaker mineral grains in the rock and along grain boundaries. Groundwater flows into the highly stressed areas during the formation of microcracks. These changes in density and water content affect the ability of the rock to transmit seismic waves and conduct electricity. Therefore, seismic-wave velocity and electrical resistance progressively change as the overall rupture along the fault draws near. Localized changes in land-surface elevation are also related to volume changes at depth. An area of recent uplift along the San Andreas Fault near Los Angeles, which has been named the Palmdale Bulge, is being monitored in great detail as a possible indicator of a future earthquake.

4. The word focused in the passage is closest in meaning to

A. dependent

B. funded

C. concentrated

D. published

5. Paragraph 3 mentions all of the following as examples of precursors EXCEPT

A. changes in the speed of seismic waves

B. changes in the availability of electricity

C. changes in the frequency of foreshocks

D. changes in land surfaces

6. According to the dilatancy model, what happens to rocks shortly before an earthquake

A. They lose significant amounts of moisture.

B. They show signs of expanding.

C. They move downward at great speed.

D. They increase in temperature.

7. According to paragraph 3, the groundwater that flows into microcracks before an earthquake causes

A. changes in seismic waves and electrical activity

B. increases in the mineral content of rocks

C. the disappearance of grain boundaries in rocks

D. a release in the tension of highly stressed areas of rocks

8. The author discusses the San Andreas Fault near Los Angeles in order to

A. contrast past and future patterns of earthquake activity in the area

B. give an example of an area where underground earthquake activity is apparent from land changes above the ground

C. explain why recent earthquake predictions have increased accuracy

D. suggest that some areas of earthquake activity are easier to monitor than others

**Paragraph 4**

Volume changes and groundwater movement may be reflected by changes in water levels in wells and also by changes in the chemical composition of groundwater. Radon gas has been observed to increase in wells prior to earthquakes. These increases are perhaps related to the release of radon gas from rocks during the formation of microcracks. The pattern of seismic activity is also significant in the vicinity of a fault area where rupture is imminent. This pattern consists of an initial rise in the number of small events, followed by a decline in foreshocks just prior to the major earthquake. The decline may represent a temporary increase in rock strength before the newly formed microcracks are filled with water.

9. According to paragraph 4, which of the following occurs just before an earthquake

A. The chemical content of groundwater drops.

B. The rocks weaken as they fill with water.

C. Seismic activity decreases.

D. Radon gas causes microcracks to form.

10. The word imminent in the passage is closest in meaning to

A. frequent

B. well understood

C. known to occur

D. about to happen

**Paragraph 5**

The precursor phenomena can be grouped into stages according to the dilatancy model. Stage I consists of a gradual stress buildup along the fault. Stages II and III are correlated with dilatancy and water influx. Stage IV is the major earthquake, and stage V is the aftermath of the event. [A] If every earthquake followed the sequence with uniform stage duration, earthquake prediction would be a simple matter. [B] Instead of following the same patterns, each earthquake is unique in terms of specific precursor behavior patterns and length of precursor stages. [C] A magnitude 6.9 North American earthquake in 1989 was preceded by a substantially smaller magnitude 5 earthquake fifteen months before the event. [D] Another foreshock of similar size occurred two months before the event. In each case, a public advisory was issued stating that those smaller earthquakes could be foreshocks to a stronger earthquake within five days. However, the fault did not cooperate, and those predictions were not successful. Continued research and study of future earthquakes will certainly lead to refinement of the dilatancy model or to a replacement model with more accurate predictive capabilities.

11. How is paragraph 5 organized

A. The sequence of earthquake stages is given, and the effect of variable stage length on earthquake prediction is explained.

B. The earthquake stages are named, and the most important stage is illustrated with a specific earthquake event.

C. The sequence of earthquake stages is given, and evidence is presented that the intervals between stages are roughly equal in length.

D. The earthquake stages are first named, and each is then described in greater detail.

12. The word refinement in the passage is closest in meaning to

A. reconsideration

B. acceptance

C. improvement

D. extension

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

**But the reality of earthquake forecasting is considerably more complex.**

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

The precursor phenomena can be grouped into stages according to the dilatancy model. Stage I consists of a gradual stress buildup along the fault. Stages II and III are correlated with dilatancy and water influx. Stage IV is the major earthquake, and stage V is the aftermath of the event. [A] If every earthquake followed the sequence with uniform stage duration, earthquake prediction would be a simple matter. [B] Instead of following the same patterns, each earthquake is unique in terms of specific precursor behavior patterns and length of precursor stages. [C] A magnitude 6.9 North American earthquake in 1989 was preceded by a substantially smaller magnitude 5 earthquake fifteen months before the event. [D] Another foreshock of similar size occurred two months before the event. In each case, a public advisory was issued stating that those smaller earthquakes could be foreshocks to a stronger earthquake within five days. However, the fault did not cooperate, and those predictions were not successful. Continued research and study of future earthquakes will certainly lead to refinement of the dilatancy model or to a replacement model with more accurate predictive capabilities.

14. Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

Short-term forecasting has been used more widely than long-term forecasting in the prediction of earthquakes.

B. Long-term forecasting of earthquakes uses data on past seismic activity to determine the likelihood that an earthquake will occur in a certain area within a certain time period.

C. Short-term forecasting research has studied earthquake precursors such as volume increases in rocks and unusual movements in underground water that occur shortly before an earthquake takes place.

D. The dilatancy model has been used to successfully forecast some recent earthquakes.

E. Attempts to improve forecasting by using five stages of earthquake predictors have been unsuccessful because each earthquake has unique precursor patterns and durations.

F. The magnitude 6.9 North American earthquake in 1989 was not successfully predicted because the many foreshocks before the event were too small to measure.

**Thermal Stratification**

热量分层：C B C D B；A D B D D；C D C ABF

**Live Performance**

现场表演：D D B C D; B A C D B; C A C CDF

**Earthquake Prediction（3月25日已考）**

地震预测：B D C C B; B A B C D; A C B BCE

第16套

The Geographical Distribution of Gilding Animals

Paragraph 1

Southeast Asia has a unique abundance and diversity of gliding animals—flying squirrels, flying frogs, and flying lizards with wings of skin that enable them to glide through the tropical forest. What could be the explanation for the great diversity in this region and the scarcity of such animals in other tropical forests? Gliding has generally been viewed as either a means of escaping predators, by allowing animals to move between trees without descending to the ground, or as an energetically efficient way of traveling long distances between scattered resources. But what is special about Southeast Asian rain forests?

1. According to paragraph 1, what question about gliding species are researchers trying to answer?

A. Why it took millions of years for gliding animals to evolve in the tropical forests of Southeast Asia

B. Why gliding animals, though rare in most tropical forests, have evolved in so many different families in Southeast Asia

C. Why gliding animals evolved in many tropical forests in Southeast Asia before they evolved in any of the tropical forests elsewhere in the world

D. Why gliding animals evolved only in tropical rain forests.

2. According to paragraph 1, it is generally thought that the ability to glide is useful to forest-dwelling species because gliding

A. allows them to adapt to a wide variety of forest conditions

B. eliminates the need to travel long distances in search of food

C. provides a rapid, energy-efficient way of descending from the top of the tree to the ground

D. through the forest without being exposed

3. The word “scattered” in the passage is closest in meaning to

1. hard to find
2. seasonally available
3. widely separated
4. highly varied

Paragraph 2

Scientists have proposed various theories to explain the diversity of gliding animals in Southeast Asia. The first theory might be called the tall-trees hypothesis. The forests of Southeast Asia are taller than forests elsewhere due to the domination of the dipterocarp family, a family of tall, tropical hardwood trees. Taller trees could allow for longer glides and the opportunity to build up speed in a dive before gliding. The lower wind speeds in tall-tree forests might also contribute by providing a more advantageous situation for gliding between trees. This argument has several flaws, however. First, gliding animals are found throughout the Southeast Asian region, even in relatively short-stature forests found in the northern range of the rain forest in China, Vietnam, and Thailand. Some gliders also thrive in low secondary forests, plantations, and even city parks. Clearly, gliding animals do not require tall trees for their activities. In addition, many gliding animals begin their glides from the middle of tree trunks, not even ascending to the tops of trees to take off.

4. All of the following are mentioned in paragraph 2 in support of the tall-trees hypothesis EXCEPT:

A. Tall trees make longer glides possible.

B. Tall trees make building up speed in a dive possible.

C. Tall trees make gliding from the middle of tree trunks possible

D. Tall trees forests have lower wind speeds.

5. Select the TWO answer choices that point to flaws in the tall-trees hypothesis, according to paragraph 2. To receive credit, you must select TWO answers.

A. Many gliding animals are unable to ascend to the tops of tall trees.

B. Gliding animals are not evenly distributed throughout the forests of Southeast Asian region

C. In Southeast Asia, many gliding animals are found in places where trees tend to be relatively short

D. Many gliding animals begin their glides from positions midway up the trunks of trees.

Paragraph 3

A second theory, which we might call the broken-forest hypothesis, speculates that the top layer of the forest—the tree canopy—has fewer woody vines connecting tree crowns in Southeast Asian forests than in New World and African forests. As a result, animals must risk descending to the ground or glide to move between trees. In addition, the tree canopy is presumed to be more uneven in height in Asian forests, due to the presence of the tall dipterocarp trees with lower trees between them, again favoring gliding animals. Yet ecologists who work in different regions of the world observe tremendous local variation in tree height, canopy structure, and abundance of vines, depending on the site conditions of soil, climate, slope elevation, and local disturbance. One can find many locations in Southeast Asia where there are abundant woody vines and numerous connections between trees and similarly many Amazonian forests with few woody vines.

6. The word “speculates” in the passage is closest in meaning to

A. concludes from evidence

B. recognizes

C. puts forward as a possibility

D. claims

7. Paragraph 3 implies which of the following ideas about forests in which there are abundant woody vines connecting tree crowns?

A. The tree canopy is more even than it is in other forests.

B. In such forests, animals can move between trees by traveling on vines.

C. Such forests generally contain a wider diversity of animals than other forests do

D. There are likely to be fewer predators on the grounds in such forests than in other forests.

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

A. seasonal

B. endless

C. unexpected

D. Enormous

9. Paragraph 3 supports the idea that one problem with the broken-forest hypothesis is that

A. ecologists have found gliding animals in areas of Southeast Asia where trees are connected by vines and not found them in Amazonian forests where trees are not connected by vines

B. in southeast Asia, the forests with the fewest woody vines connecting the tops of the trees turn out to have the most gliding animals

C. according to ecologists in different regions of the world, gliding animals are as abundant and varied in some forests of Africa and the New World as they are in Southeast Asian forests

D. gliding is no easier in broken forests with an uneven canopy structure than it is in forests where the trees are all about the same height

Paragraph 4

A final theory differs from the others in suggesting that it is the presence of dipterocarp trees themselves that is driving the evolution of gliding species. According to this view, dipterocarp forests can be “food-deserts” for the animals that live in them. The animals living in dipterocarp forests that have evolved gliding consist of two main feeding groups, leaf eaters and carnivores that eat small prey such as insects and small vertebrates. For leaf-eating gliders the problem is not the absence of any leaves but the desert-like absence of edible leaves. Dipterocarp trees often account for 50 percent or more of the total number of canopy trees in a forest and over 95 percent of the large trees, yet dipterocarp leaves are unavailable to most vertebrate plant eaters because of the high concentration of toxic chemicals in their leaves. Many species of gliding animals avoid eating dipterocarp leaves and so must travel widely through the forest, bypassing the dipterocarp trees, to find the leaves they need to eat. And gliding is a more efficient manner of traveling between trees than descending to the ground and walking or else umping between trees.

10. According to paragraph 4, what special difficulty do leaf-eating animals face in a dipterocarp forest?

A. Dipterocarp trees are leafy than other canopy trees.

B. There is no efficient method of getting from one tree to another.

C. Most trees are very tall with leaves that are difficult to reach

D. There is a large distance between trees that have edible leaves.

Paragraph 5

Many carnivorous animals also may need to search more widely for food due to the lower abundance of insects and other prey. This is caused by dipterocarps’ irregular flowering and fruiting cycles of two- to seven-year intervals, causing a scarcity of the flowers, fruits, seeds, and seedlings that are the starting point of so many food chains. The lower abundance of prey in dipterocarp forests forces animals such as lizards and geckos to move between tree crowns, in search of food, with gliding being the most efficient means.

11. How does paragraph 5 relate to paragraph 4?

A. Paragraph 5 shows that the food-desert theory introduced in account for only part of what needs to be explained.

B. Paragraph 5 explains why the author calls the theory set out in paragraph 4 the food-desert theory.

C. Paragraph 5 completes the account of the food-desert theory begun in paragraph 4.

D. Paragraph 5 outlines an alternative to the food-desert theory described in paragraph

12. According to paragraph 5, what is responsible for the relative scarcity of insects and other prey in dipterocarp forests?

A. The inability of insects and other prey to eat the toxic seeds, flowers, and fruits of dipterocarp trees

B. The efficiency with which lizards and geckos hunt their prey

C. The abundance of carnivorous animals in dipterocarp forests

D. Dipterocarps’ irregular flowering and fruiting cycles

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

For each group, a dipterocarp forest is like a desert in that food resources are few and far apart.

Where would the sentence best fit?

A final theory differs from the others in suggesting that it is the presence of dipterocarp trees themselves that is driving the evolution of gliding species. ◼ According to this view, dipterocarp forests can be “food-deserts” for the animals that live in them. ◼ The animals living in dipterocarp forests that have evolved gliding consist of two main feeding groups, leaf eaters and carnivores that eat small prey such as insects and small vertebrates. ◼ For leaf-eating gliders the problem is not the absence of any leaves but the desert-like absence of edible leaves. Dipterocarp trees often account for 50 percent or more of the total number of canopy trees in a forest and over 95 percent of the large trees, yet dipterocarp leaves are unavailable to most vertebrate plant eaters because of the high concentration of toxic chemicals in their leaves. ◼ Many species of gliding animals avoid eating dipterocarp leaves and so must travel widely through the forest, bypassing the dipterocarp trees, to find the leaves they need to eat. And gliding is a more efficient manner of traveling between trees than descending to the ground and walking or else umping between trees.

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

Various theories have been proposed to explain the unique abundance and diversity of gliding animals in the rain forests of Southeast Asia.

A. One theory is that so many gliding species evolved in Southeast Asia because the forests are exceptionally tall, but there is evidence that calls that theory into question.

B. Ecologists have shown that the abundance of gliding animals in different regions of the world corresponds to variations in tree height, canopy structure, and abundance of vines.

C. In forests that are dominated by tall trees, jumping from tree to tree or descending to the ground may be a more efficient way of traveling through the forest than gliding.

D. The fact that gliding animals are most abundant in the short-stature forests of China, Vietnam, and Thailand shows that gliding did not evolve as an adaptation to an environment of tall trees.

E. The hypothesis that gliding evolved to compensate for a scarcity of vines linking tree canopies overlooks problematic evidence from both Southeast Asian and Amazonian forests.

F. Dipterocarp trees create an environment in which many species must travel widely to find food, and gliding may have evolved as a rapid and efficient way of moving between tree crowns.

Saving Soil and Cropland

Paragraph 1

The world’s farmers are literally losing ground on two fronts—the loss of soil from erosion and the conversion of cropland to nonfarm uses. Both are well-established trends that reduce agricultural output, but since both are gradual processes, they are often not given the attention they deserve.

Paragraph 2

The 1930s Dust Bowl that threatened to turn the United States Great Plains into a vast desert was a traumatic experience that led to revolutionary changes in American agricultural practices, such as the planting of tree shelterbelts—rows of trees planted beside fields to slow wind and thus reduce wind erosion. Perhaps the most lasting change is strip cropping, the planting of crops on alternate strips with fallowed (not planted) land each year. This permits soil moisture to accumulate on the fallowed strips, while the planted strips reduce wind speed and hence the wind erosion on the idled strips. The key to controlling wind erosion is to keep the land covered with vegetation as much as possible and to slow wind speed at ground level.

1. 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 1930s Dust Bowl was a revolutionary event that threatened to destroy United States agriculture by turning the Great Plains into a vast desert.

B. The 1930s Dust Bowl in the united States resulted in radical changes in agricultural practices aimed at reducing wind erosion, such as the planting of tree shelterbelts.

C. Tree shelterbelts, which are often used in the Great Plains area, are made up of the trees that are planted in long rows beside agricultural fields.

D. Of all the innovative techniques used to control wind erosion after the 1930s Dust Bowl, only tree shelterbelts proved effective.

2. The word “hence” in the passage is closest in meaning to

A. therefore

B. most importantly

C. to a large extent

D. indirectly

3. According to paragraph 2, which of the following is true about strip cropping?

A. It increases crop yields annually.

B. It forces farmers to plant crops that absorb less water and fewer nutrients from the soil.

C. It requires the use of shelterbelts.

D. It prevents wind erosion and allows moisture to collect on sections of land left unplanted.

Paragraph 3

One of the time-tested methods of dealing with water erosion is terracing—creating hill-side ridges—to reduce runoff. Another newer, highly effective tool in the soil conservation tool kit is conservation tillage, which includes both no tillage and minimum tillage. In conventional farming, land is plowed, disked, or harrowed to prepare the seedbed, seed is drilled into the soil with a planter, and row crops are cultivated with a mechanical cultivator two or three times to control weeds. With minimum tillage, farmers simply drill seeds directly into the soil. The only tillage is a one-time disturbance in a narrow band of soil where the seeds are inserted, leaving the remainder of the soil undisturbed, covered by crop residues and thus resistant to both water and wind erosion.

4. According to paragraph 3, all of the following are practices involved in minimum tillage EXCEPT:

A. using mechanical devices to control weeds

B. leaving unseeded soil undisturbed

C. disturbing the soil only once where the seeds are inserted

D. protecting against water and wind erosion by leaving parts of the soil covered with crop residues

Paragraph 4

In the United States, where farmers during the 1990s were required to implement a soil-conservation plan on erodible cropland to be eligible for crop price supports, the no-till area went from 7 million hectares in 1990 to nearly 21 million hectares (51 million acres) in 2000, tripling within a decade. An additional 23 million hectares were minimum-tilled, for a total of 44 million hectares of conservation tillage. This total included 37 percent of the corn crop, 57 percent of soybeans, and 30 percent of the wheat. Outside the United States, data for crop year 1998-1999 show Brazil using conservation tillage on 11 million hectares and Argentina on 7 million hectares. Canada, using conservation tillage on 4 million hectares, rounds out the “big four”. And now no-till farming is catching on in Europe, Africa, and Asia. In addition to reducing soil losses, minimum-till and no-till practices also help retain water and reduce energy use.

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

A. reduce the cost of

B. put into effect

C. give consideration to

D. Improve

6. According to paragraph 4, why did the amount of no-till area increase between 1990 and 2000 in the United States?

A. More land area had become available for farming during this period.

B. Fewer crops were needed since no till farming had increased the soybean, wheat, and corn crop yields.

C. Because conventional farming practices were too expensive, farmers decided to use the cheaper no-till conservation plan.

D. The government provided financial support to farmers who practiced soil conservation.

7. Paragraph 4 suggests that all of the following were among the largest users of conservation tillage during the late 1990s EXCEPT:

A. Argentina

B. Europe

C. Canada

D. Brazil

Paragraph 5

Another example of an effort to control soil erosion is the Conservation Reserve Program (CRP). Created in the United States in 1985, the CRP aimed to convert 45 million acres of highly erodible land into permanent vegetative cover under ten-year contracts. Under this program, farmers were paid to plant grass or trees on fragile cropland. The retirement of 35 million acres under the CRP, together with the adoption of conservation practices on 37 percent of all cropland, reduced soil erosion in the United States from 3.1 billion tons in 1982 to 1.9 billion tons in 1997.

8. What can be inferred from paragraphs 4 and 5 about soil conservation efforts in the United States?

A. Encouraging minimum tillage practices resulted in much more efficient soil conservation than converting erodible land into vegetative cover.

B. Complete retirement of land combined with soil-conservation practices significantly reduced soil erosion.

C. Measuring the success of government-supported conservation programs over extended periods of time was sometimes as difficult as getting the programs started.

D. The reduction of energy use due to practices such as conservation tillage and land retirement was much larger in the United States than in any other country.

Paragraph 6

Saving cropland is sometimes more difficult than saving the topsoil on the cropland. This is particularly the case when dealing with urban sprawl, where strong commercial forces have influence. With cropland becoming scarce, efforts to protect prime farmland from urban spread are needed everywhere. Japan provides a good example of such efforts. It has successfully protected rice paddies even within the boundaries of Tokyo, thus enabling it to remain self-sufficient in rice, its staple food.

9. The word “ particularly” in the passage is closest in meaning to

A. usually

B. obviously

C. especially

D. Currently

10. The word “scarce” in the passage is closest in meaning to

A. short in supply

B. more threatened

C. more expensive

D. less productive

11. In paragraph 6, the author refers to Tokyo, Japan, in order to

A. explain why Japan is not likely to experience problems with soil erosion in the future

B. provide evidence of the importance of maintaining cropland close to big cities

C. point to an approach for reducing urban spread into croplands that has had positive results

D. argue for the use of Japanese techniques to prevent erosion in the United States.

Paragraph 7

In the United States, Portland, Oregon, provides another example. The state adopted boundaries to urban growth twenty years ago, requiring each community to project its growth needs for the next two decades and then, based on the results, draw an outer boundary that would accommodate that growth. This has worked in Oregon because it has forced development back to the city.

12. Select the TWO answer choices that, according to paragraph 7, indicate true statements about Oregon. To obtain credit, you must select TWO answer choices.

A. It planned and set long-term limits to urban growth.

B. Its urban development within the city limits increased.

C. Its surrounding farmland provided what the city needed to make it self-sufficient.

D. It allowed each of its communities to deal with the commercial forces behind urban spread independently.

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

These methods differ from traditional farming practices.

Where would the sentence best fit?

◼ One of the time-tested methods of dealing with water erosion is terracing—creating hill-side ridges—to reduce runoff. ◼ Another newer, highly effective tool in the soil conservation tool kit is conservation tillage, which includes both no tillage and minimum tillage. ◼ In conventional farming, land is plowed, disked, or harrowed to prepare the seedbed, seed is drilled into the soil with a planter, and row crops are cultivated with a mechanical cultivator two or three times to control weeds. ◼ With minimum tillage, farmers simply drill seeds directly into the soil. The only tillage is a one-time disturbance in a narrow band of soil where the seeds are inserted, leaving the remainder of the soil undisturbed, covered by crop residues and thus resistant to both water and wind erosion.

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Agricultural output all ever the world is being reduced due to soil erosion and an increased use of cropland for nonfarming purposed.

A. Terracing, probably one of the oldest methods for controlling soil erosion, led to the creation of the more sophisticated and more efficient conservation practices used in contemporary farming.

B. The United States has successfully instituted programs that encourage conservation tillage and the retirement of highly erodible land.

C. City governments in the United States and Japan developed conservation programs that encourage farmers near big cities to cultivate crops that minimize soil erosion.

D. After the 1930s Dust Bowl, the United States made significant changes to its agricultural practices, including the planting of tree shelterbelts and strip cropping.

E. The conservation Reserve Program created in the United States in 1985 is gradually being adopted in other areas at the world such as Europe, Africa, and Asia.

F. Saving cropland is sometimes difficult because it involves dealing with commercial forces, but some efforts like those in Tokyo and Oregon have been successful.

The Role of the Ocean in Controlling Climate

Paragraph 1

To predict what the climate will be like in the future, scientists must rely on sophisticated computer models. These models use mathematical equations to represent physical processes and interactions in the atmosphere, ocean, and on land. A starting point is usually based on current measurements or estimates of past conditions. Then, using a spherical grid laid out over the entire globe, thousands of calculations are performed at grid intersections to represent and assess how conditions in the air, in the sea, and on land will change over time. Because of their complexity and size, supercomputers are used to run full-scale climate models. Much of the uncertainty in their outputs comes from the way that various aspects of the climate are represented by different models, and even more so, because there are aspects of climate that are not well understood—one of which is how the ocean impacts climate.

1. According to paragraph 1, the results of full-scale climate models are questionable in part because
2. the supercomputers used for such modeling are large and complex
3. thousands of calculations have to be performed to assess conditions
4. past conditions cannot always be estimated accurately
5. there are multiple ways to represent the same aspect of climate

Paragraph 2

The ocean’s role in global warming stems principally from its huge capacity to absorb carbon dioxide and to store and transport heat. In the sea, photosynthesis by marine plants and algae, especially phytoplankton, removes great quantities of carbon dioxide from the atmosphere. Hence, the greater the growth (productivity) of phytoplankton in the sea, the greater the removal of carbon dioxide. But what controls the ocean’s productivity? There are several limiting factors, but results from a recent experiment suggest that in areas of the ocean where other nutrients are plentiful, iron may be one of the most important and, until recently, unrecognized variables controlling phytoplankton production. Some have proposed a radical, highly controversial, and uncertain means to counteract global warming—adding iron to the oceans to induce phytoplankton blooms, Perhaps increased phytoplankton growth would use up a significant amount of carbon dioxide in the atmosphere, but perhaps not, and there might well be side effects that could be detrimental to the ocean ecosystem.

1. The word “principally” in the passage is closest in meaning to
2. obviously
3. apparently
4. mainly
5. Originally
6. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.
7. Iron may be one of the most important factors in controlling phytoplankton production in ocean waters that are rich in other nutrients.
8. Results from a recent experiment suggest that several factors limiting phytoplankton production in ocean waters have gone unrecognized.
9. Although it was not recognized until recently, nutrients are plentiful in areas of the ocean where iron controls phytoplankton production.
10. Until recently, the importance of iron was not taken into account in experiments concerning phytoplankton production.
11. The word “controversial” in the passage is closest in meaning to
12. experimental
13. fascinating
14. producing disagreement
15. demonstrating poor judgment
16. The word “induce” in the passage is closest in meaning to
17. supply nutrients to
18. cause the formation of
19. expand
20. Strengthen
21. According to paragraph 2, how might increasing phytoplankton growth help lower global temperatures?
22. By cooling the oceans
23. By decreasing carbon dioxide levels in the ocean
24. By reducing the amount of carbon dioxide in the atmosphere
25. By transporting heat from the ocean’s surface to deeper levels

Paragraph 3

Within the ocean, the production of limestone, in the form of calcium carbonate skeletons or shells, also reduces atmospheric carbon dioxide. However, when deposits of limestone become exposed and weathered on land or are recycled in the sea, carbon dioxide is released back into the atmosphere. What is not well understood is how much carbon dioxide resides in the sea and at what rate it is taken up and recycled. Relatively new research has also discovered beneath the sea a new and potentially significant threat to skyrocketing Earth temperatures: gas hydrates. Gas hydrates are a solid, crystalline form of water, like ice, except that they contain additional gas, typically methane, and are often found stored in ocean sediments. Increased ocean temperatures could cause gas hydrates to dissociate, releasing massive amounts of methane gas into the atmosphere and cause undersea landslides in the process. Consequently, hydrates may, if released, significantly increase global warming as well as create a geologic hazard to offshore drilling operations.

1. According to paragraph 3, which of the following reduces atmospheric carbon dioxide?
2. The weathering of limestone
3. The production of limestone
4. The recycling of carbon dioxide
5. The presence of methane in gas hydrates
6. According to paragraph 3, why are gas hydrates a possible threat to the global climate?
7. If disturbed by offshore drilling, they can destroy limestone deposits.
8. They can replace regular ice at certain locations.
9. If melted, they may release a lot of carbon dioxide into the atmosphere.
10. They contain a lot of methane, which may be released as the ocean warms.

Paragraph 4

The ocean is also a great reservoir and transporter of heat. Heat from the ocean warms the atmosphere and fuels tropical storms. Heat is transported by currents from the equator to the poles. Oceans circulation is strongly controlled by wind and by the sea’s balance of salt and heat. Scientists think that climate warming may slow down circulation, while cooling may speed it up, but these responses are not well understood. Evaporation from the ocean also supplies the precipitation that creates fields of snow and ice at high latitudes. Snow and ice coverage change the reflectivity of Earth’s surface and are an important influence on how much incoming radiation is either absorbed or reflected. Furthermore, clouds and water vapor in the atmosphere come mainly from the sea and strongly influence climate. Surprisingly, clouds are one of the least understood and most poorly modeled parts of the climate change equation. Most climate modeling grids fail to take into account common-sized cloud formations. Aerosols, tiny particles of soot, dust, and other materials, are thought to seed cloud formation, scatter incoming radiation and promote cooling, but this effect, which would counteract warming, is also only superficially understood. Computer models of climate change must take into account all of the processes within the ocean, over land, and in the sky that potentially influence warming. No wonder there is such uncertainty.

1. The word “fuels” in the passage is closest in meaning to
2. provides energy for
3. determines the route of
4. carries
5. breaks up
6. Which of the following is NOT mentioned in paragraph 4 as a way in which the ocean affects the climate?
7. It stores heat.
8. It moves heat from the equator toward the poles.
9. It speeds up wind circulation.
10. It warms up the atmosphere.
11. Paragraph 4 suggests that a significant decrease in snow and ice fields at high latitudes would have what effect?
12. More clouds and water vapor would be produced in the atmosphere.
13. More of the Sun’s radiation would be absorbed by Earth.
14. The oceans would cool more quickly.
15. More precipitation would occur at low latitudes.
16. Why does the author mention that “Most climate modeling grids fail to take into account common-sized cloud formations”?
17. To suggest why the influence of clouds on climate change is still undetermined
18. To explain why research on climate change does not focus on clouds
19. To help explain why it is unclear whether aerosols have the effect of counteracting warming
20. To explain in part why scientists are uncertain how much incoming radiation is absorbed or reflected

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

Nor is carbon dioxide the only gaseous substance in the ocean that may affect climate.

Where would the sentence best fit?

Within the ocean, the production of limestone, in the form of calcium carbonate skeletons or shells, also reduces atmospheric carbon dioxide. ◼ However, when deposits of limestone become exposed and weathered on land or are recycled in the sea, carbon dioxide is released back into the atmosphere. ◼ What is not well understood is how much carbon dioxide resides in the sea and at what rate it is taken up and recycled. ◼ Relatively new research has also discovered beneath the sea a new and potentially significant threat to skyrocketing Earth temperatures: gas hydrates. ◼ Gas hydrates are a solid, crystalline form of water, like ice, except that they contain additional gas, typically methane, and are often found stored in ocean sediments. Increased ocean temperatures could cause gas hydrates to dissociate, releasing massive amounts of methane gas into the atmosphere and cause undersea landslides in the process. Consequently, hydrates may, if released, significantly increase global warming as well as create a geologic hazard to offshore drilling operations.

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

The oceans affect the climate in numerous ways, some of which are poorly understood and therefore cannot be accurately modeled in computer climate programs.

1. Estimates of future conditions are entered into supercomputers to calculate climate possibilities at various places on Earth.
2. Oceans absorb a great deal of carbon dioxide from the air through limestone production and the photosynthesis of phytoplankton.
3. Gases are stored in the sea in the form of shells and hydrates, but gases stored in these ways can be recycled to the atmosphere where they may cause warming.
4. The ocean’s capacity to absorb carbon dioxide remains great despite recent reductions of marine plant nutriments such as iron.
5. Ocean circulation is strongly controlled by wind and by the sea’s balance of salt and heat.
6. The ocean holds and movies a great deal of heat, and as ocean water evaporates, it produces clouds, snow, and ice, which all affect global temperatures.

The Geographical Distribution of Gilding Animals

The Geographical Distribution of Gilding Animals答案：

1-5. BACC[CD]; 6-10. CBDAD; 11-14. CDC [AEF]

Saving Soil and Cropland

Saving Soil and Cropland答案：B A C A B; D B B C A; B [AB] C BDF

The Role of the Ocean in Controlling Climate

1. D 2. C 3. A 4. C 5. B 6. C 7. B 8. D 9. A 10.C 11. B 12. A 13. C 14. BCF

第17套

**Determining the Ages of the Planets and the Universe**

Paragraph 1

The planets of our solar system all revolve around the Sun in the same direction and in orbits that lie in nearly the same plane. This is strong evidence that the planets formed simultaneously from a single disk of material that rotated in the same direction as the modern planets.

Paragraph 2

Precisely when the planets came into being has been a difficult issue to resolve. While Earth’s water is necessary for life, its abundance near the planet’s surface makes rapid erosion inevitable. Continuous alteration of the crust by erosion and also by igneous (volcanic) and metamorphic (pressure and heat within Earth) processes makes unlikely any discovery of rocks nearly as old as Earth. Thus geologists have had to look beyond this planet in their efforts to date Earth’s origin. Fortunately, we do have samples of rock that appear to represent the primitive material of the solar system. These samples are meteorites, which originate as extraterrestrial objects, called meteors, that have been captured in Earth’s gravitational field and have then crashed into our planet.

1. According to paragraphs 1 and 2, what evidence leads astronomers to believe that all the planets formed at approximately the same time?

* Samples of rocks from all the planets are the same age.
* All the planets orbit the Sun in the same direction and in about the same plane.
* All planets have the same igneous and metamorphic processes.
* The gravitational field of each planet is about the same strength.

Paragraphs 1 and 2 are marked with arrows [→]

1. The word ”inevitable” in the passage is closet in meaning to

* continuous
* obvious
* certain
* easy

1. Which of the following is NOT mentioned in paragraph 2 as a cause of constant change to Earth’s crust?

* Water
* Igneous processes
* Metamorphic processes
* Meteorites

Paragraph 2 is marked with an arrow [→]

Paragraph 3

Some meteorites consist of rocky material and, accordingly, are called stony meteorites. Others are metallic and have been designated iron meteorites even though they contain lesser amounts of elements other than iron. Still others consist of mixtures of rocky and metallic material and thus are called stony-iron meteorites. Meteors come in all sizes, from small particles to the small planets known as asteroids; no asteroid, however, has struck Earth during recorded human history. Many meteorites appear to be fragments of larger bodies that have undergone collisions and broken into pieces. Iron meteorites are fragments of the interiors of these bodies, comparable to Earth’s core, and stony meteorites are from outer portions of these bodies, comparable to Earth’s mantle (the layer between the core and outer crust).

1. The word ” accordingly” in the passage is closet in meaning to

* correspondingly
* frequently
* interestingly
* informally

1. Which of the following can be inferred from paragraph 3 about meteorites?

* Their composition can help determine the part of the larger body from which they broke off.
* They are difficult to distinguish from rocks in Earth’s mantle.
* Their collisions with Earth have become more frequent than in the past.
* They are older than the rest of the solar system.

Paragraph 3 is marked with an arrow [→]

1. According to paragraph 3, which of the following is a characteristic of asteroids?

* They are the largest meteors.
* They are made mostly of iron and other metals.
* They often collide with Earth.
* They are the oldest meteors.

Paragraph 3 is marked with an arrow [→]

Paragraph 4

Meteorites have been radiometrically dated by means of several decay systems, including rubidium-strontium, potassium-argon, and uranium-thorium. The dates thus derived tend to cluster around 4.6 billion years, which suggests that this is the approximate age of the solar system. After many meteorites had been dated, it was gratifying to find that the oldest ages obtained for rocks gathered on the surface of the Moon also were approximately 4.6 billion years. This must, indeed, be the age of the solar system. Ancient rocks can be found on the Moon because the lunar surface, unlike that of Earth, has no water to weather and erode rocks and is characterized by only weak movements of its crust.

1. Which of the following can be inferred from paragraph 4 about the radiometric dating of meteorites?

* Scientists tried several different radiometric systems before finding one that worked.
* The radiometric dating of different meteorites produced similar results.
* Many meteorites were damaged by the radiometric dating.
* Radiometric dating was not as accurate as scientists expected.

Paragraph 4 is marked with an arrow [→]

1. The word ” cluster” in the passage is closet in meaning to

* approach
* spread
* group
* vary

1. According to paragraph 4, why are scientists confident that the age of the oldest meteorites they studied is also the age of the solar system?

* Radiometric dating has been proven to be reliable.
* The oldest rocks found on the surface of the Moon are the same age as the meteorites.
* No meteorites have been found that are younger than 4.6 billion years old.
* Meteorites on the Moon are the same age as those on other planets.

Paragraph 4 is marked with an arrow [→]

Paragraph 5

Determining the age of the universe has been more complicated. Most stars in the universe are clustered into enormous disk-like galaxies. The distance between our galaxy, known as the Milky Way, and all others is increasing. In fact, all galaxies are moving away from one another, evidence that the universe is expanding. It is not the galaxies themselves that are expanding but the space between them. What is happening is analogous to inflating a balloon with small coins attached to its surface. The coins behave like galaxies: although they do not expand, the space between them does. Before the galaxies formed, matter that they contain was concentrated with infinite density at a single point from which it exploded in an event called the big bang. Even after it assembled into galaxies, matter continued to spread in all directions from the site of the big bang.

1. The word ”enormous” in the passage is closet in meaning to

* expanding
* very bright
* distant
* huge

1. Why does the author refer to “inflating a balloon with small coins attached to its surface”?

* To help explain how the universe can expand while the galaxies remain the same size
* To imply that the universe must eventually stop expanding
* To support the statement that most stars are found in disk-shaped galaxies
* To help explain how the universe began as a single point of dense matter

Paragraph 6

The evidence that the universe is expanding makes it possible to estimate its age. This evidence, called the redshift, is an increase in the wavelengths of light waves traveling through space—a shift toward the red end of the visible spectrum of wavelengths. Expansion of the space between galaxies causes this shift by stretching light waves as they pass through it. The farther these light waves have traveled through space, the greater the redshift they have undergone. For this reason, light waves that reach Earth from distant galaxies have larger redshifts than those from nearby galaxies. Calculations based on these redshifts indicate that about 13.7 billion years ago all of the galaxies would have been at one spot, the site of the big bang. This, then, is the approximate date of the big bang and the age of the universe.

1. According to paragraph 6, how did astronomers learn that the universe is expanding?

* By measuring the distance between galaxies
* By observing the movement of stars within galaxies
* By studying the wavelengths of light from distant galaxies
* By comparing the sizes of different galaxies

Paragraph 6 is marked with an arrow [→]

Paragraph 3

■Some meteorites consist of rocky material and, accordingly, are called stony meteorites. ■Others are metallic and have been designated iron meteorites even though they contain lesser amounts of elements other than iron. ■Still others consist of mixtures of rocky and metallic material and thus are called stony-iron meteorites. ■Meteors come in all sizes, from small particles to the small planets known as asteroids; no asteroid, however, has struck Earth during recorded human history. Many meteorites appear to be fragments of larger bodies that have undergone collisions and broken into pieces. Iron meteorites are fragments of the interiors of these bodies, comparable to Earth’s core, and stony meteorites are from outer portions of these bodies, comparable to Earth’s mantle (the layer between the core and outer crust).

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

**Several varieties of meteorites have been observed.**

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

1. 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 answer choices 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 choices to the spaces where they belong. To review the passage, click on **View Text**.

**There is strong evidence that all the planets of our solar system were formed from the same disk of matter at the same time.**

●

●

●

**Answer Choices**

A. Determining the age of the planets by examining rocks on Earth is difficult because Earth’s crust is constantly changing.

B. Meteorites found on Earth and rocks from the Moon’s surface are the best evidence for estimating the age of the planets.

C. The expansion of the universe makes it possible to estimate its age by measuring the amount of the redshift of light coming from distant galaxies.

D. All three kinds of meteorites are similar in composition to Earth in that they have an inner core, a rocky mantle, and an outer crust.

E. Radiometric dating of meteorites recovered from the Moon shows that they are older than those that are found on Earth.

F. The redshift phenomenon measures the rate at which the stars in a galaxy are moving away from each other.

**Costs and Benefits of Dispersal（17年上半年再次考过）**

Paragraph 1

In order to move from one home base to another, animals must expend calories not only while moving but even before the dispersal when they invest in the development of the muscles needed to move. For example, if a cricket is to leave a deteriorating environment and move to a new and better place, it will need large flight muscles to fly away. Presumably, the calories and materials that go into flight muscle development and maintenance have to come out of the general energy budget of the animal. This means that other organ systems cannot develop as rapidly as they could otherwise, which may mean that the flight-capable individual is, in some other respects, less fit to survive.

1. The word ”Presumably” in the passage is closet in meaning to

* It is reasonable to assume
* It is possible
* It can be argued
* It is certainly true

1. In paragraph 1, the discussion of cricket dispersal is used to illustrate which of the following principles?

* For dispersing animals, the benefits of dispersal exceed the costs.
* Dispersal always involves costs for the dispersing animal.
* Only animals with the greatest fitness for survival are able to disperse.
* Dispersal, as much as organ development, requires energy.

Paragraph 1 is marked with an arrow [→]

Paragraph 2

Dispersing individuals not only have to pay energetic, developmental, and travel costs but are also more often exposed to predators—all of which raises the question, why are animals so often willing to leave home even when this means leaving a familiar, resource-rich location? This question is particularly pertinent for species in which some individuals disperse while others do not or do not disperse as far. One species in which some individuals travel farther than others is Belding’s ground squirrel. Young male squirrels travel about 150 meters from the burrow in which they were born, whereas young females usually settle down only 50 meters or so from where they were born. Why should young Belding’s ground squirrels disperse at all, and why should the males disperse farther than their sisters?

1. The word ” pertinent” in the passage is closet in meaning to

* puzzling
* important
* complex
* relevant

1. According to paragraph 2, what is of particular interest about the dispersal of Belding’s ground squirrels?

* Young squirrels disperse farther than adults.
* Young squirrels disperse even from resource-rich areas.
* The males and females have different patterns of dispersal.
* They leave the mother’s burrow at an earlier age than other squirrels.

Paragraph 2 is marked with an arrow [→]

1. It can be inferred from paragraph 2 that the phenomenon of dispersal

* is difficult to observe in the wild
* occurs for reasons that are not always immediately apparent
* is motivated by the desire to obtain more or better resources
* has few benefits for most species

Paragraph 2 is marked with an arrow [→]

Paragraph 3

According to one argument, dispersal by juvenile animals of many species may be an adaptation against problems associated with inbreeding. When two closely related individuals mate, their offspring are more likely to manifest genetic diseases than are the offspring of genetically unrelated individuals, and as a result, inbreeding tends to produce animals that are less likely to survive to adulthood and reproduce. Dispersal of juveniles makes inbreeding less likely.

1. 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.

* When closely related individuals mate, their offspring are likely to manifest genetic diseases that will probably be passed on to the next generation.
* Genetic diseases inherited from parents that are not related make it less likely that the affected offspring will survive to adulthood and reproduce.
* When two related individuals mate, their offspring may survive to adulthood, but they are unlikely to reproduce.
* There is a tendency for the offspring of closely related parents to have genetic diseases that make it less likely they will survive and reproduce.

Paragraph 4

If avoidance of inbreeding is the point of dispersing, then one might expect as many female ground squirrels as males to travel 150 meters from their natal burrow. In fact females do not disperse as far as males, perhaps because the costs and benefits of dispersal differ for the two sexes. It has been suggested that the reproductive success of female Belding’s ground squirrels depends on their possession of a territory in which to rear their young. Female ground squirrels that remain near their birthplace enjoy assistance from their mothers in the defense of their burrows against rival females. Thus, the benefits of remaining on familiar ground are greater for females than for males.

1. According to paragraph 4, young female Belding’s ground squirrels may remain closer to where they were born than do males in order to

* avoid inbreeding with their male siblings
* avoid competition with other females for territory
* save energy they need to defend their burrows
* benefit from their mothers’ help

Paragraph 4 is marked with an arrow [→]

Paragraph 5

There may, however, be another reason why male mammals disperse greater distances than females. The usual rule is that males, not females, fight with one another for access to mates, and, therefore, males that lose such conflicts may find it advantageous to move away from same-sex rivals that they cannot subdue. Although this hypothesis probably does not apply to Belding’s ground squirrels, since young males have not been seen fighting with older ones around the time of dispersal, the idea is more plausible with respect to some other species, such as lions.

1. According to paragraph 5, the hypothesis that males disperse as a result of conflicts with other males is not supported in the case of Belding’s ground squirrels because

* young male squirrels that lose fights to other males do not disperse
* unlike most species, it is the females, not the males, that fight with each other
* there is no evidence that young male squirrels fight with other males before dispersing
* fights between males generally take place after the males have dispersed

Paragraph 5 is marked with an arrow [→]

1. The word ”subdue” in the passage is closet in meaning to

* remove
* fight
* defeat
* accept

Paragraph 5

There may, however, be another reason why male mammals disperse greater distances than females. The usual rule is that males, not females, fight with one another for access to mates, and, therefore, males that lose such conflicts may find it advantageous to move away from same-sex rivals that they cannot subdue. Although this hypothesis probably does not apply to Belding’s ground squirrels, since young males have not been seen fighting with older ones around the time of dispersal, the idea is more plausible with respect to some other species, such as lions.

Paragraph 6

Lions live in large groups, or prides, from which young males disperse. In contrast, the daughters of the resident lionesses usually spend their entire lives close to where they were born. The sedentary females benefit from their familiarity with good hunting grounds and safe breeding dens in their natal territory, among other things. The departure of many young male lions coincides with the arrival of new mature males that violently displace the previous masters of the pride and chase off the males that are not yet adults in the pride as well. These observations support the mate-competition hypothesis for male dispersal. However, if young males are not evicted after a pride takeover, they often leave anyway without any coercion from adult males and without ever having attempted to mate with their female relatives. Moreover, mature males that have claimed a pride sometimes disperse again, expanding their range to add a second pride of females, at a time when their daughters in the first pride are becoming sexually mature. Inhibitions against inbreeding apparently exist in lions and cause males to leave home.

1. According to paragraphs 5 and 6, the patterns of dispersal in Belding’s ground squirrels and lions are similar in which of the following ways?

* Young males are forced to disperse by older males.
* Avoiding inbreeding is probably not a factor in the explanation of the pattern of dispersal.
* Males disperse when new siblings are born.
* The males disperse farther than the females.

Paragraphs 5 and 6 are marked with arrows [→]

1. The phrase ”coincides with” in the passage is closet in meaning to

* is driven by
* occurs at the same time as
* makes possible
* is a sign of

1. Why does the author provide the information that “if young males are not evicted after a pride takeover, they often leave anyway without any coercion from adult males and without ever having attempted to mate with their female relatives”?

* To support the conclusion that made lions disperse to find mates to which they are not closely related
* To indicate that the mate-competition hypothesis does not fully account for the dispersal of young male lions
* To imply that young male lions voluntarily leave a pride that has been taken over because the adult males prevent them from mating within the pride
* To indicate that males, not females, leave a pride after it has been taken over by adult males

Paragraph 4

■If avoidance of inbreeding is the point of dispersing, then one might expect as many female ground squirrels as males to travel 150 meters from their natal burrow. ■In fact females do not disperse as far as males, perhaps because the costs and benefits of dispersal differ for the two sexes. ■It has been suggested that the reproductive success of female Belding’s ground squirrels depends on their possession of a territory in which to rear their young. ■Female ground squirrels that remain near their birthplace enjoy assistance from their mothers in the defense of their burrows against rival females. Thus, the benefits of remaining on familiar ground are greater for females than for males.

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

**However, inbreeding can be avoided without both males and their female relatives dispersing the same distance.**

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

1. 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 answer choices 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 choices to the spaces where they belong. To review the passage, click on **View Text**.

**Many young animals disperse from where they are born.**

●

●

●

**Answer Choices**

A. There are a number of competing explanations of why animals disperse, but none of them is consistent with all the observed patterns of dispersal.

B. The reason there is little inbreeding among lions is that young males are driven away from their female relatives by the adult males who forcibly take over a lion pride.

C. Inbreeding significantly lowers the likelihood that offspring will survive, and so avoiding inbreeding is a significant benefit of dispersal.

D. Since males of most species must establish a territory for mating, dispersing of the males makes it more likely that most males will be able to reproduce.

E. There need to be significant benefits for a species to disperse because the requirements of dispersal involve energy costs and dangers for the dispersing individuals.

F. In mammal species, young males often leave their family group while related females benefit from remaining in close association with each other and their birthplace.

**The Multiplier Effect**

Paragraph 1

The causes behind the rapid development of the Minoan and Mycenaean civilizations in the Aegean during the late third and second millennia B.C.E. have intrigued scholars for years. Until recently, most explanations attributed Aegean development to outside influence. Civilization had emerged in Mesopotamia by 3000 B.C.E, and, some archeologists argued, Mesopotamian trade introduced civilized ideas and technological innovations into nearby, less advanced areas. Others hypothesized that civilization was brought to the Aegean by invasion from some adjacent region, of which Anatolia in modern Turkey seemed the most plausible.

1. Paragraph 1 implies which of the following about traditional scholarship concerning the development of Aegean civilizations?

* It focused on the influence of Aegean trade on more advanced civilization rather than the invasion of the Aegean by a technologically advanced culture.
* The development of Minoan civilization was thought to require a different explanation from that for the development of Mycenaean civilization.
* It maintained that the rapid development of Aegean civilization could be explained only through external influence.
* There was general agreement that Anatolia and Mesopotamia were both responsible for the development of civilization in the Aegean.

Paragraph 1 is marked with an arrow [→]

Paragraph 2

In a work published in 1972, Professor Colin Renfrew approached the problem from a different viewpoint. He argued that the scanty available evidence for invasion or immigration from Anatolia into Greece in the early Bronze Age (about 3300-2200 B.C.E.) showed that, at most, such incursion was limited, and that it could not be regarded as responsible for the transformation of society there. Trade, though clearly documented, was also an inadequate explanation in itself. To understand the major changes in social organization and complexity that took place, it was necessary, said Renfrew, to determine the impact that new variables emerging in the early Bronze Age may have had on every interrelated aspect of the local social system. The two new major developments he considered were changes in the subsistence economy and the introduction of bronze metallurgy.

1. 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.

* Renfrew said that local variables affected the complex social organization of the early Bronze Age.
* Renfrew said that the major changes in social organization could be understood only by examining the effects of the new developments that took place in the early Bronze Age.
* The early Bronze Age, Renfrew said, was a time in which there were major changes to many interrelated aspects of local social systems.
* To understand the social organization and complexity of the early Bronze Age, it was necessary, said Renfrew, first to determine what new variables had emerged.

Paragraph 3

The economy of Neolithic Greece was based on growing grains and raising sheep. Early in the third millennium B.C.E., cultivation of grape vines and olive trees also became important in southern Greece and the Aegean Islands. Both crops were eminently suitable for trade and storage in the form of olive oil and wine. They were grown on land that was not suitable for grain farming. Their cultivation required work at a different time of year from that needed by grain crops, and much of this work, such as harvesting, was relatively light. As a result, agricultural yields were substantially increased without disrupting established agricultural practice. That increase in turn allowed, or stimulated, population growth. For the first time there was enough demand for specialized crafts and services to justify the existence of full-time craftspeople, who could be supported from the extra agricultural output.

1. The word ”justify” in the passage is closet in meaning to

* include within the social system
* provide a rational basis for
* employ
* encourage

1. According to paragraph 3, growing grape vines and olive trees increased agricultural yields because

* grapes and olives were mostly used for trade rather than for competing with established crops in local markets
* grape vines and olive trees could be cultivated on land that was also used for raising sheep
* growing grapes and olives did not require the services of specialized workers
* grape vines and olive trees did not compete with other crops for land or labor

Paragraph 3 is marked with an arrow [→]

1. According to paragraph 3, the increased importance of grape and olive cultivation led to which of the following changes in Greece?

* An increase in the number of inhabitants
* An increase in the amount of grain traded
* An increase in the percentage of farmers in the population
* The development of new methods of storing foods

Paragraph 3 is marked with an arrow [→]

Paragraph 4

Some copper artifacts were made during the fourth millennium B.C.E, but there were not many of them and they had little economic or social significance. When, in the third millennium, copper began to be mixed with tin to produce the relatively hard alloy bronze, demand for metal goods grew. Bronze could be used to make a range of useful new tools and weapons and a variety of impressive ornaments. The demand for metalwork stimulated further specialization in crafts such as toolmaking and jewelry making. The new tools promoted the development of other crafts, like carpentry and shipbuilding. Competition for prestigious or useful craft products and for control of their producers helped to heighten both social differences within communities and conflicts between them, resulting in the emergence of local chieftains, who were also in many instances warriors. These chieftains regulated agricultural and craft production, operating a distribution system through which the farmers could obtain tools or ornaments they needed or wanted. The organizational demands of controlled distribution made it necessary to develop methods of measurement and recording, which led to the development of writing.

1. The word ”promoted” in the passage is closet in meaning to

* required
* benefited from
* encouraged
* speeded up

1. According to paragraph 4, why did the invention of bronze lead to increased conflict?

* It resulted in more effective weapons for warriors.
* It led to competition for the control of skilled craftspeople and their products.
* It left the craftspeople who had been involved in making copper products without and occupation.
* It led to competition for available supplies of tin to be used in the production of bronze.

Paragraph 4 is marked with an arrow [→]

1. All of the following are discussed in paragraph 4 as changes in Greek society after bronze was introduced EXCEPT:

* Social differentiation within communities increased.
* Metalcraft workers became more specialized.
* Methods were invented for documenting the distribution of goods.
* Craft workers gained greater independence from local chieftains.

Paragraph 4 is marked with an arrow [→]

Paragraph 5

Renfrew argued that any single innovation would have had a limited or negligible effect on social organization because the inherently conservative nature of societies acts to minimize change. However, the interaction of several simultaneous developments created a multiplier effect. In the Aegean, increased agricultural productivity provided the means to support craft specialization, while bronze metallurgy provided the technology for producing highly valued new products. These factors set in motion a series of changes in other subsystems of society. Those changes in turn resulted in what, in a term borrowed from electronics, are called positive feedback loops—alterations in the workings of a social system that serve to reinforce themselves. Thus Aegean society was transformed from one consisting of basically self-sufficient and egalitarian farming villages to one of prosperous, hierarchical chiefdoms, with palace-dwelling rulers, actively competing with one another both at home and in international trade.

1. The phrase “several simultaneous developments” in the passage is closet in meaning to

* independent developments
* developments that reinforced each other
* developments that occurred at the same time
* developments that followed one another in a sequence

1. The word ”hierarchical” in the passage is closet in meaning to

* having several levels of authority
* dependent on military support
* hereditary
* nondemocratic

1. What role does the idea of a “multiplier effect” serve in Renfrew’s explanation of the development of civilization in the Aegean?

* It allows him to argue that the combined effect of individual developments can lead to a major transformation of a social organization.
* It allows him to explain the idea of a positive feedback loop.
* It allows him to explain the inherently conservative nature of societies.
* It allows him to explain how the changes in agriculture, bronze metallurgy, and craft specialization came about.

1. According to paragraph 5, the transformation of Aegean society involved all the following EXCEPT

* interdependence of the society’s various social and economic structures
* economic success
* competition between chiefdoms for economic dominance
* social and political equality

Paragraph 5 is marked with an arrow [→]

Paragraph 2

In a work published in 1972, Professor Colin Renfrew approached the problem from a different viewpoint. ■He argued that the scanty available evidence for invasion or immigration from Anatolia into Greece in the early Bronze Age (about 3300-2200 B.C.E.) showed that, at most, such incursion was limited, and that it could not be regarded as responsible for the transformation of society there. ■Trade, though clearly documented, was also an inadequate explanation in itself. ■To understand the major changes in social organization and complexity that took place, it was necessary, said Renfrew, to determine the impact that new variables emerging in the early Bronze Age may have had on every interrelated aspect of the local social system. ■The two new major developments he considered were changes in the subsistence economy and the introduction of bronze metallurgy.

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

**Instead, Renfrew emphasized the complex internal dynamics of change.**

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

1. 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 answer choices 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 choices to the spaces where they belong. To review the passage, click on **View Text**.

**Colin Renfrew’s explanation of the rise of Aegean civilization rejected traditional views that the cause was one or another external influence on the developing society.**

●

●

●

**Answer Choices**

A. The emergence of Aegean civilization was the result of internal factors interacting with each other in a way that multiplied each other’s effects.

B. An increase in population created a shortage of agricultural land that increased social tensions and forced many farmers to become warriors for local chieftains.

C. More effective bronze weapons increased the power of local chieftains, who imposed a system in which they collected farm and craft products in exchange for protecting their subjects.

D. Once people began producing bronze, it surpassed wine and olive oil as the most important good traded in the Aegean.

E. Agricultural surpluses from the production of olive oil and wine and the introduction of bronze technology together supported population growth, the development of crafts, and economic expansion.

F. As the economy diversified and grew, a higher level of social organization was required, a need that encouraged the emergence of chieftains who regulated the distribution of economic goods.

参考答案：

Determining the Ages of the Planets and the Universe：BCDAA, ABCBD, ACA, 123

Costs and Benefits of Dispersal：ADDCB, DDCCD, BBB, 356

The Multiplier Effect：CBBDA, CBDCA, ADC, 156

第18套

Reconstructing Ancient Environment

Paragraph 1

A stage that is imperative in any archaeological process is the reconstruction of the physical environments in which a particular segment of the archaeological record was formed. Climates and the world’s geomorphology—the shape and constituents of land surfaces—have changed greatly over the past several million years of human history, and each archaeological analysis begins with an effort to reconstruct the physical world of the culture being analyzed.

1. The word “constituents” in the passage is closest in meaning to

A. components

B. locations

C. size

D. temperatures

Paragraph 2

Ancient climates can often be reconstructed from floral and faunal remains. The study of animal remains, or faunal analysis, is a complex field in which, in most cases, the archaeologist is trying to reconstruct human diet and local environments. Faunal analysts usually count the numbers and kinds of animals represented by the remains they find, and then use statistical methods to estimate the food values, ages, and sexes of the animals being exploited. The prehistoric record of the meat-eating habits of early humans is far from clear about the prevalence of scavenging. One faction of prehistorians argues there is evidence that early humans were primarily scavengers who found the remains of animals killed by lions and other carnivores, and butchered them. Another faction disagrees and proposes that early humans hunted for their own meat. Marks left by humans cutting up animals with stone tools are now being analyzed to help distinguish between cases in which people butchered animals they had killed themselves and those in which they butchered animals they scavenged from kills of other animals.

2. According to paragraph 2, prehistorians disagree about which of the following?

A. Whether humans hunted animals themselves or ate meat from animals killed by other carnivores

B. The number and kinds of animals humans ate

C. Whether lions and other carnivores were hunted by humans

D. Whether or not humans butchered animals to eat

3. 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. Humans using stone tools to butcher animals left marks on the bones of the animals they killed and the animals they scavenged.

B. Humans scavenged stone tools to butcher animals left marks on the bones of the animals they killed and the animals they scavenged.

C. Humans scavenged animals killed by other animals and butchered them using stone tools.

D. Tool marks on butchered animals bones are analyzed to help determine whether humans killed or merely scavenged the animals.

Paragraph 3

Throughout human history, plants have been our main source of food, and so floral analyses—studies of the remains of plants—are an extremely important part of archaeology, particularly in studies of how domesticated plants and animals and agricultural economies evolved. Carbon is chemically quite stable, so charred plants (plants converted to charcoal or carbon) and seeds preserve well. Carbonized plant remains can be retrieved by flotation: excavated sediments are mixed with water or some other fluid and the charred plant fragments rise to the surface, where they can be skimmed off and identified. The importance of such analyses lies in the fact that these plants indicate much about the climates and vegetation of the periods in which the animals lived. For example, there are debates about when and where various animals were domesticated. If phytoliths (tiny mineral particles formed inside plants) of domesticated grains are found on the teeth of these animals, the probability is high that they were part of an agricultural economy.

4. The word “excavated” in the passage is closest in meaning to

A. dug from the ground

B. concentrated in solid form

C. deposited

D. Dried

5. According to paragraph 3, what is one reason that scientists use flotation?

A. To estimate the fluid content of ancient plants and seeds

B. To identify the sediments in which ancient plants grew

C. To learn about the climate of places where ancient plants grew

D. To determine whether the remains of ancient plants and seeds have carbonized

6. According to paragraph 3, which of the following is true about carbonized plant remains?

A. Each fragment of carbonized plant remains contains sediments of a wide variety of plants.

B. Carbonized plant remains are usually found near the remains of domesticated animals.

C. Carbonized plant remains can be recovered by mixing sediments with fluid.

D. Carbonized plant remains from an area are used to settle the age of animal remains located in the same area.

7. According to paragraph 3, which of the following do archeologist consider to be a strong indicator that an agricultural economy existed in a particular site?

1. An unusually high number of animal remains near the surface of the site.
2. Remains of domesticated plants in the teeth of animals
3. High numbers of mineral particles inside carbonized plants
4. Evidence of little vegetation change for long periods of time

Paragraph 4

Human bodies are also valuable sources of information for archaeologists, particularly if the bodies are well preserved. For example, eleven naturally mummified bodies were found in beach sand in northern Chile and date to about 1000 B.C. When they were analyzed, it was found that one of them was a coca leaf chewer (the earliest known), while other bodies showed the changes of the bones of the inner ear that are characteristic of people who spend a lot of time diving in cold water. In addition, they had the kinds of dental problems and missing teeth associated with the sticky starches of an agricultural diet—although about 40 percent of their diet came from marine resources.

8. According to paragraph 4, all of the following were true of some people in northern Chile around 1000 B.C. EXCEPT:

A. They were divers.

B. They chewed coca leaves.

C. They had dental problems caused by eating food from marine resources.

D. They ate plants grown on land.

9. The word “characteristic” in the passage is closest in meaning to

A. expected

B. typical

C. suggestive

D. destructive

Paragraph 5

A rapidly growing technical specialty within archaeology is geoarchaeology, which combines archaeological and geological analyses. Geology and archaeology form a natural marriage in many obvious ways because both disciplines are concerned with the alteration of natural landscapes. Glaciers, changing rainfall patterns, and many other natural forces cause changes to landscapes, and of course, so do people. Geologists are broadly concerned with ancient physical environments, and archaeologists require knowledge of these environments to interpret their finds.

1. The word “alteration” in the passage is closest in meaning to

A. destruction

B. preservation

C. authenticity

D. modification

Paragraph 6

Geoarchaeological analyses involve many different kinds of questions and techniques. In the Egyptian Delta region, for example, many of the earliest communities were built on large sand-and-gravel mounds created by the Nile River as it deposited the sediments it carried. But many of these communities have been buried under many meters of sediments from numerous ancient floods since that time and by other factors as well. Moreover, the streams feeding into the Nile River in the delta have changed course many times, leaving a maze of crisscrossed buried river channels. Finding these buried sand-and gravel mounds and the archaeological sites on them often requires complex geological analyses involving special digging, satellite image analysis, and many other techniques.

1. The purpose of paragraph 6 is to

A. answer questions about the equipment and techniques used in the Egyptian Delta area

B. describe the earliest communities built on large, sand=and-gravel mounds

C. explain how streams feeding the Nile River in the delta change course over time

D. provide an example of a situation where complex archaeological analyses and techniques are necessary

12. According to paragraph 6, what is one reason that complex geological analyses are needed for locating many of the earliest Nile River communities?

A. Flood waters can carry evidence of human habitation far from its place of origin.

B. The streams associated with early communities have changed course over time.

C. More recent communities have been built on top of ancient communities

D. The types of sediments carried by Nile floods have changed since ancient times.

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

Such a variety of methods are especially important at sites that are no longer visible on the surface.

Where would the sentence best fit?

Geoarchaeological analyses involve many different kinds of questions and techniques. ◼ In the Egyptian Delta region, for example, many of the earliest communities were built on large sand-and-gravel mounds created by the Nile River as it deposited the sediments it carried. ◼ But many of these communities have been buried under many meters of sediments from numerous ancient floods since that time and by other factors as well. ◼ Moreover, the streams feeding into the Nile River in the delta have changed course many times, leaving a maze of crisscrossed buried river channels. ◼ Finding these buried sand-and gravel mounds and the archaeological sites on them often requires complex geological analyses involving special digging, satellite image analysis, and many other techniques.

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

Archaeological analysis begins with an effort to reconstruct the physical world of the culture being analyzed.

A. Studying plant and animal remains can reveal details of ancient climates, food sources, and agricultural activities.

B. Once identified, carbonized plant remains can help modern agriculturalists determine the most stable varieties of plants to grow.

C. To help understand the physical world of ancient communities, archaeologists may work with geologists and employ complex new techniques.

D. Faunal analysis deals mainly with analyzing the tools ancient humans used for hunting and killing animals.

E. An examination of human remains can tell archaeologists about such things as the individual’s diet and habits.

F. Geoarchaeology, a growing field within archaeology, has proved to be more effective in explaining the alterations made to natural landscapes than in explaining how members of ancient communities lived.

Water Supply in Venice

The city of Venice, built on saltwater marshes and crisscrossed by canals, experienced problems with its water supply for most of its history. One fifteenth-century French traveler noted that “in a city” in which the inhabitants are in water up to their mouths, they often go thirsty “How was the community to solve this important problem?

1. Why does the author include the quotation “in a city in which the inhabitants are in water up to their mouths, they often go thirsty”?

A. To indicate that the French traveled to Venice frequently in the fifteenth century.

B. To illustrate the opinion of other Europeans about the water situation in Venice

C. To suggest that the water supply problem of Venice continued well beyond the fifteenth century.

D. To emphasize how serious the water problem was in Venice.

Paragraph 2

Water drawn from the lagoon (the large, shallow body of water between Venice and the Mediterranean Sea) and the canals within the city served many domestic uses such as washing and cooking inventories of even the most modest households list large numbers of buckets, which were emptied and rinsed, the ones used to carry the brackish (somewhat salty) canal water were kept separate from those intended for fresh water. Still, even serving such needs would have been impossible if the canals of Venice had been extremely polluted. The government was obliged to impose controls, and in the early fourteenth century, the Great Council prohibited the washing of all cloth and dyed woolens in the canals, adding that water used for dyeing could not be flushed into the canals. Henceforth, dirty water of that sort was to go into the lagoon. Thanks to resistance on the part of the dyers, infractions were many, the law did not reflect common practice. A century later, however, most of the dye works that used blood or indigo(a dark blue dye) had shifted to the periphery of the city, as had all activities “that let off bad odors or smells.”, such as butchering. Blood, carcasses, and spoiled meat were to go into the

lagoon. The canals of Venice began to be protected in the name of nascent ecological awareness.

2. The word “Henceforth” in the passage is closest in meaning to

A. Instead of this

B. In addition

C. From this time on

D. In effect

3. The word “obliged” in the passage is closest in meaning to

A. forced

B. allowed

C. expected

D. Persuaded

4. According to paragraph 2, why did the government place restrictions on

dyers?

A. To protect the city’s drinking water

B. To prevent the lagoon from being polluted

C. To keep canal water clean

D. To discourage the use of blood and indigo for dyeing cloth

5.According to paragraph 2, how did dyers respond to the controls imposed by the government?

A. They switched from using dyes that let off bad odors or smells to new dyes that smelled much better

B. They resisted initially but eventually moved most of the dyeing operations outside the city center

C. They argued that the government did not consider common practice before imposing the controls

D. They started washing cloth and woolens dyed with blood and indigo in the lagoon

Paragraph 3

Much more stringent measures were necessary to guarantee a supply of drinking water, however. In the early centuries of settlement in the lagoon basin, the populations depended on wells on the nearby coastal region. By the ninth century, however, with the increase in population density, cisterns became necessary. Basically, the cisterns were large, covered pits dug into the ground and lined with clay to hold water. The cisterns were located in the city, but unlike the wells, the cisterns were not supplied with water from the lagoon, they collected rainwater instead. Cisterns became widespread in the growing city.

6．It can be inferred from paragraph 3 that wells on the nearby coastal region

A. were smaller in size than the cisterns located in the city

B. served as a water source for the growing number of cisterns in the city

C. increased in number as the population density increased

D. Provided enough water for only a relatively small number of people

Paragraph 4

Over a period of several hundred years, Venice developed an elaborate system of cisterns and gome-the gutters or pipes that carried rainwater to the cisterns and that, for a single cistern, might extend over an area of several streets. Wealthy households had their own cisterns. In less affluent areas of the city, cisterns were often owned and maintained by neighborhood groups. In crowded parts of the city where landlords offered small house for rent, one or two cisterns were provided for each street. A network of public cisterns paralleled these private and semiprivate arrangements. Every public square in the city had a cistern to serve the poorest venetians.

7. According to paragraph 4, all of the following were true of Venice’s system of cisterns and gome EXCEPT

A. It was developed over several centuries

B. It collected rainwater

C. It was maintained with fees paid by the public

D. It reflected the social and economic diversity of the city of Venice

Paragraph 5

In the thirteenth century, a decision was made to create 50 additional cisterns, primarily in the recently urbanized area at the edge of the city. At the same time, a campaign was launched to repair the existing cisterns. Expansion of the cistern system stopped during much of the fourteenth century as Venice, like other cities in Europe, suffered from bubonic plague. In the fifteenth century, however, a new program of cistern construction and repair was undertaken.

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

A. paid for

B. started

C. proposed

D. agreed on

9. According to paragraph 5, all of the following had an effect on cisterns in Venice from the thirteenth to the fifteenth century EXCEPT

A. the construction of cisterns in other cities in Europe

B. the establishment of programs to construct and repair cisterns

C. the outbreak of bubonic plague

D. the urbanization of an area at the edge of the edge of the city

Paragraph 6

In spite of the expansion of the cistern system, Venice continued to have problems with its water supply, especially during dry periods. Flotillas of boats had to be dispatched to the mouths of nearby rivers-first to the Bottenigo, then to the Brenta-to fetch fresh water. The fresh water was then sold by the bucket or poured into the cisterns. The public authorities made efforts to take bolder action to ensure the supply of fresh water from this parallel source and a number of projects were suggested during the fourteenth and fifteenth centuries to channel river water and even to construct an aqueduct. However, the high cost of such initiatives precluded their execution.

10. The phrase “this parallel source” refers to

A. flotillas of boat

B. nearby rivers

C. the cisterns

D. an aqueduct

11. The word “ensure” in the passage is closest in meaning to

A. improve

B. increase

C. control

D. Guarantee

12. According to paragraph 6, how did public authorities respond to problems with the water supply during dry periods?

A. They sent boats to fetch fresh water from nearby rivers

B. They channeled river water into the cisterns

C. They constructed an aqueduct

D. They sold water from the cisterns in buckets to the public

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

The complexity of the cistern system was social as well as physical.

Paragraph 4

Over a period of several hundred years, Venice developed an elaborate system of cisterns and gome-the gutters or pipes that carried rainwater to the cisterns and that, for a single cistern, might extend over an area of several streets. ■Wealthy households had their own cisterns. ■In less affluent areas of the city, cisterns were often owned and maintained by neighborhood groups. ■In crowded parts of the city where landlords offered small house for rent, one or two cisterns were provided for each street. ■A network of public cisterns paralleled these private and semiprivate arrangements. Every public square in the city had a cistern to serve the poorest venetians.

Where would the sentence best fit?

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

The city of Venice experienced problems with its water supply for most of its history.

Answer Choices

A. The water from the lagoon between Venice and the Mediterranean Sean could not be used for drinking because it was extremely polluted.

B. From the ninth to the fifteenth century, Venice developed a system to collected and store rainwater in cisterns for use by the population

C. Wealthy households were able to build their own cisterns, but everyone else had to use public cisterns located in the city’s many squares.

D. By the early fourteenth century, the water in Venice’s canals was becoming too polluted for household use prompting the city council to prohibit the use of the canals by dyers and butchers.

E. By the fifteenth century, cisterns supplied by rainwater proved to be inadequate, but the cost of the projects proposed for a permanent solution was too high for the projects to be undertaken.

F. The expansion and repair of the cistern system was interrupted for much of the fourteenth century because of the bubonic plague, a situation that worsened the water supply problem.

Vocalization in Frogs(17年4月曾经又考过)

Paragraph 1

The tungara frog is a small terrestrial vertebrate that is found in Central America. Tungara frogs breed in small pools, and breeding groups range from a single male to choruses of several hundred males. the advertisement call of a male tungara frog is a strange noise, a whine that starts at a frequency of 900 hertz and sweeps downward to 400 hertz in about 400 milliseconds. The whine may be produced by itself, or it may be followed by one or several chucks or clucking sounds. when a male tungara a frog is calling alone in a pond, it usually gives only the whine portion of the call, but as additional males join a chorus, more and more of the frogs produce calls that include chucks. Scientists noted that male tungara frogs calling in a breeding pond added chucks to their calls when they heard the recorded calls of other males played back. That observation suggested that it was the presence of other calling males that incited frogs to make their calls more complex by adding chucks to the end of the whine.

1. The word “incited” in the passage is closest in meaning to

A. allowed

B. stimulated

C. forced

D. Helped

2. According to paragraph 1, male tungara frogs add chucks to the whine they produce when

A. potential mates are unable to hear the frequency of their whine sounds

B. other males produce louder whine sounds than they do

C. the frogs breed in large pools rather than small ones

D. other males are present in their breeding pool

Paragraph 2

What advantage would a male frog in a chorus gain from using a whine-chuck call instead of a whine? Perhaps the complex call is more attractive to female frogs than the simple call. Michael Ryan and Stanley Rand tested that hypothesis by placing female tungara frogs in a test arena with a speaker at each side. One speaker broadcast a pre-recorded whine call, and the second speaker broadcast a whine-chuck. When female frogs were released individually in the center of the arena, fourteen of the fifteen frogs tested moved toward the speaker broadcasting the whine-chuck call.

3. What is the relationship of paragraph 2 in the passage to paragraph 1?

A. Paragraph 2 provides additional support for a scientific hypothesis discussed in paragraph 1.

B. Paragraph 2 questions the accuracy of a scientific observation discussed in paragraph1.

C. Paragraph 2 provides a possible explanation for a scientific observation discussed in paragraph 1.

D. Paragraph 2 identifies some strengths and weaknesses of a scientific hypothesis discussed in paragraph 1.

4. According to paragraph 2, Ryan and Rand conducted an experiment to find out whether which of the following theories was true?

A. Male frogs in a chorus use a whine-chuck in place of a whine call.

B. Female frogs prefer a whine-chuck call to a simple whine call.

C. Male frogs tend to produce more whine-chuck calls than whine calls.

D. Female frogs respond differently to live calls from males than they do to recorded calls.

Paragraph 3

If female frogs are attracted to whine-chuck calls in preference to whine calls, why do male frogs give whine-chuck calls only when other males are present? Why not always give the most attractive call possible? One possibility is that whine-chuck calls require more energy than whines, and males save energy by only using whine-chucks when competition with other males makes the energy expenditure necessary. However, measurements of the energy expenditure of calling male tungara frogs showed that energy cost was not related to the number of chucks. Another possibility is that male frogs giving whine-chuck calls are more vulnerable to predators than frogs giving only whine calls. Tungara frogs in breeding choruses are preyed upon by a species of frog-eating bats. Trachops cirrhosis, and it was demonstrated that the bats locate the frogs by homing on their vocalizations.

5. To be attracted to whine-chuck calls “in preference to” whine calls means

A. to like whine-chuck calls instead of whine calls

B. to like whine-chuck calls in addition to whine calls

C. to like whine-chuck calls followed by whine calls

D. to like whine-chuck calls more than whine calls

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

A. Males may save energy when competing for mates by using only whine-chuck calls rather than both whines and whine-chucks.

B. Males expend as much of their energy on whine-chuck calls as on whine calls when competing with other males.

C. Males save energy by using whine-chuck calls only when competing with other males.

D. Males that save energy by using only whines are less able to compete with other males.

Paragraph 4

In a series of playback experiments, Michael Ryan and Merlin Tuttle placed pairs of speakers in the forest and broadcast vocalizations of tungara frogs. One speaker played a recording of a whine and the other a recording of a whine-chuck. The bats responded as if the speakers were frogs: they flew toward the speakers and even landed on them. In five experiments at different sites, the bats approached speakers broadcasting whine-chuck (168 approaches versus 81). Thus, female frogs are not alone in finding whine-chuck calls more attractive than simple whines—an important predator of frogs also responds more strongly to the complex calls.

7. According to paragraph 4, all of the following are true of the playback experiments EXCEPT:

A. Female frogs and predator bats approached the broadcasting speakers.

B. The bats responded more strongly to the whine-chuck calls than they responded to the whine calls.

C. Each speaker played a different kind of male frog call.

D. The same experiment was repeated at different locations.

8. According to paragraph 4, the playback experiments of Ryan and Tuttle demonstrated which of the following?

A. Tungara frogs use both whines and whine-chucks in their vocalizations.

B. Female tungara frogs are attracted to both whine and whine-chuck vocalizations.

C. Female tungara frogs and predators of tungara frogs are attracted to different types of vocalizations.

D. Frog-eating bats are attracted to whine-chuck calls more than to alone.

Paragraph 5

Ryan and his colleagues measured the rates of predation in tungara frog choruses of different sizes. Large choruses of frogs did not attract more bats than small choruses, and consequently the risk of predation for an individual frog was less in a large chorus than in a small one. Predation was an astonishing 19 percent of the frogs per night in the smallest chorus and a substantial 1.5 percent per night even in the largest chorus. When a male frog shifts from a simple whine to a whine-chuck call, it increases its risk of attracting a female, but it simultaneously increases its risk of attracting a predator. In small choruses, the competition from other males for females is relatively small, and the risk of predation is relatively large. Under these conditions it is apparently advantageous for a male tungara frog to give simple whines. However, as chorus size increases, competition with other males also increases while the risk of predation falls. In that situation, the advantage of giving a complex call apparently outweighs the risks.

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

A. average

B. smaller

C. considerable

D. surprising

10. The word “outweighs” in the passage is closest in meaning to

A. exceeds

B. ignores

C. minimizes

D. Disguises

11. According to paragraph 5, all of the following are true about tungara frog vocalizations EXCEPT:

1. The larger the frog chorus, the smaller the chance there is of a particular frog being eaten by a predatory bat.
2. The larger the frog chorus, the louder each individual frog calls.
3. The smaller the frog chorus, the easier it is for a frog to attract a female.
4. The smaller the frog chorus, the more likely it becomes that frog using the whine-chuck vocalization will be attacked by a bat

12. Which of the following can be inferred from paragraph 5 about the behavior of male tungara frogs?

A. When in small choruses they use less effective mating calls to decrease their risk of predation.

B. They avoid joining a large chorus in a breeding pool because it increases the risk of predation.

C. They avoid the use of the whine-chuck call whenever there is the risk of predators.

D. They attempt to avoid predation by making their calls at night.

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

Predation, therefore, is a risk in choruses of all sizes, but the risk varies depending on the type of call used.

Where would the sentence best fit?

Ryan and his colleagues measured the rates of predation in tungara frog choruses of different sizes. Large choruses of frogs did not attract more bats than small choruses, and consequently the risk of predation for an individual frog was less in a large chorus than in a small one. Predation was an astonishing 19 percent of the frogs per night in the smallest chorus and a substantial 1.5 percent per night even in the largest chorus. ◼ When a male frog shifts from a simple whine to a whine-chuck call, it increases its risk of attracting a female, but it simultaneously increases its risk of attracting a predator. ◼ In small choruses, the competition from other males for females is relatively small, and the risk of predation is relatively large. ◼ Under these conditions it is apparently advantageous for a male tungara frog to give simple whines. ◼ However, as chorus size increases, competition with other males also increases while the risk of predation falls. In that situation, the advantage of giving a complex call apparently outweighs the risks.

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

In order to attract females, male tungara frogs use two kinds of calls: a whine and a whine-chuck.

A. Tungara frogs generally use simple calls when they wish to attract a mate, and complex calls when they wish to avoid predation.

B. The hypothesis that whine calls are used to save energy when males are not in immediate competition with each other has been disproved by showing that chuck calls do not require more energy.

C. Most males gather in groups of several hundreds when calling because the rate of predation from bats is so high in small groups.

D. Two hypotheses have been put forward about why females and frog-eating bats are more attracted to males using whine-chuck calls.

E. Tungara females overwhelmingly favor the whine-chuck call used by the males, but so do certain bats that prey upon tungara frogs.

F. Male tungara frogs use the whine-chuck call in large groups, where their risk of predation is lower, and the whine call in small groups, where their risk is higher.

Reconstructing Ancient Environment

Reconstructing Ancient Environment答案: A A D A C; C B C B D; D B A ACE

The city of Venice

Water Supply in Venice答案：D C A C B; D C B A B; D A A (BEF)

Vocalization in Frogs

Vocalization in Frogs答案：B D C D D; C A D C A; B A A BEF

第19套

Origins of the Megaliths

Paragraph 1

Since the days of the earliest antiquarians, scholars have been puzzled by the many Neolithic (~4000B.C.—2000B.C.) communal tombs known as megaliths along Europe’s Atlantic seaboard. Although considerable variations are found in the architectural form of these impressive monuments, there is a general overriding similarity in design and, particularly, in the use of massive stones.

Paragraph 2

The construction of such large and architecturally complex tombs by European barbarians struck early prehistorians as unlikely. The Bronze Age seafaring civilizations that lived in the region of the Aegean Sea (~3000B.C.—1000B.C.), among whom collective burial and a diversity of stone-built tombs were known, seemed a probable source of inspiration. It was suggested that Aegean people had visited Iberia in southwestern Europe in search of metal ores and had introduced the idea of collective burial in massive tombs, which then spread northward to Brittany, Britain, North Germany, and Scandinavia.

1. The word “collective” in the passage is closest in meaning to
2. aboveground
3. public
4. elaborate
5. Group

2.According to paragraph 2, early prehistorians thought the Aegean people of the Bronze Age might have influenced megalith building along the Atlantic seaboard because they

A. had established commercial routes along the Atlantic seaboard

B. had been in Iberia, where they introduced the idea of burial in very large tombs

C. were thought to have found megaliths in Iberia when searching for metals

D. were thought to have passed along the concept of burial in monumental tombs as they explored Brittany, Britain, North Germany and Scandinavia

Paragraph 3

Radiocarbon dates for a fortified settlement of megalith builders at Los Millares in Spain appeared to confirm this picture, though dates for megaliths in Brittany seemed too early. When calibrated however, it became clear that radiocarbon dates were universally too early to support a Bronze Age Aegean origin. It is now clear that the megaliths are a western and northern European invention, not an introduced idea. Even so, they are still a subject of speculation and inquiry. What induced their builders to invest massive efforts in erecting such monumental tombs? How was the necessary labor force assembled? What underlies their striking similarities?

3. In paragraph 3, why does the author discuss the results of radiocarbon dates?

A. To support the idea that megaliths spread rapidly during the Bronze Age

B. To question the idea that megaliths have a religious origin

C. To provide evidence against the theory that Bronze Age Aegeans inspired the megaliths

D. To argue that the megaliths in Brittany are older than the megaliths in Los Millares

4. The word “erecting” in the passage is closest in meaning to

A. designing

B. constructing

C. protecting

D. decorating

Paragraph 4

One answer to the last question was proposed by Professor Grahame Clark, one of Britain’s greatest prehistorians. Investigating the megaliths of southern Sweden, he noted that one group was concentrated in coastal locations from which deep-sea fish such as cod, haddock, and ling could have been caught in winter. Historically, much of the Atlantic was linked by the travels of people who fished, and this could well have provided a mechanism by which the “megalith idea” and fashions in the style of tomb architecture spread between coastal Iberia, Brittany, Ireland, western England and Scotland, and Scandinavia. The high concentrations of megaliths on coasts and the surprising number of megaliths found on small islands may support a connection with fishing.

5. According to paragraph 4, what did Professor Clark propose as a result of studying the megaliths of southern Sweden

A. Swedish megaliths are nearly identical to megaliths elsewhere.

B. People who traveled for fishing may have been responsible for the spread of megaliths in Europe.

C. Swedish megaliths were probably built after other European megaliths were built.

D. Megaliths in Europe were usually located near sites for deep-sea fishing in winter.

Paragraph 5

Professor Colin Renfrew of the University of Cambridge, England, however, views the similarities as similar responses to similar needs. At the structural level, the passage that forms a major element of many graves could have been devised independently in different areas to meet the need for repeated access to the interior of these communal tombs. Other structural resemblances could be due to similarities in the raw materials available. In answer to the question of why the idea of building monumental tombs should arise independently in a number of areas, he cites the similarities in their backgrounds.

6..What is the purpose of discussing the passage that forms a major element of many graves

A. To provide an example of a commonly occurring feature of megaliths that might be related to a similar need

B. To argue that similarities in raw materials were responsible for the similarity of passages

C. To explain how repeated access to the interior of the communal tombs was possible

D. To provide evidence that the builders of the megaliths had similar backgrounds

Paragraph 6

Most megaliths occur in areas inhabited in the postglacial period by Mesolithic hunter-gatherers (~8500B.C.—4000B.C.). Their adoption of agriculture through contact with Neolithic farmers, Renfrew argues, led to a population explosion in the region and consequent competition for farmland between neighboring groups. In the face of potential conflict, the groups may have found it desirable to define their territories and emphasize their boundaries. The construction of megaliths could have arisen in response to this need.

7.The word “consequent” in the passage is closest in meaning to

A. intense

B. increasing

C. resulting

D. continual

8.According to paragraph 6, Professor Renfrew has argued that one factor leading to the rise of megaliths in Europe was

A. the adoption of farming by Mesolithic hunter-gatherers

B. the transition from a glacial to a postglacial climate

C. the relocation of Mesolithic populations from one region to another

D. the conflict over whether areas inhabited by Mesolithic peoples would be used for farming

Paragraph 7

Renfrew has studies two circumscribed areas, the Scottish islands of Arran and Rousay, to examine this hypothesis more closely. He found that a division of the arable land into territories, each containing one megalith, results in units that correspond in size to the individual farming communities of recent times in the same area. Each unit supported between 10 and 50 people. The labor needed to put up a megalith would probably be beyond the capabilities of a community this size. But Renfrew argues that the cooperation of other communities could be secured by some form of recognized social incentive—perhaps a period of feasting at which communal building was one of several activities.

9. The phrase “this hypothesis” in the passage refers to the idea that

1. there was competition for territory between Mesolithic hunter-gathers and invading Neolithic farmers
2. a population explosion brought about a division of the region’s Neolithic farmers into neighboring groups
3. the need of neighboring groups to define their territories led to the construction of megaliths
4. the construction of megaliths was a way of competing for farmland

10. According to paragraph 7, what did Renfrew conclude about the megaliths of Arran and Rousay?

1. Each megalith was associated with a specific agricultural community.
2. Each megalith was built by between 10 and 50 people.
3. Some megaliths were built using stones quarried at other places.
4. Some megaliths were built gradually over time rather than all at once.

Paragraph 8

Most megaliths contain collective burials. Different tombs used different arrangements, but there seems to have been an underlying theme: people placed in these tombs were representative of their society, but their identity as individuals was not important. The tombs belonged to the ancestors, through whom the living society laid claim to their land. This interpretation reinforces Renfrew’s view of the megaliths as territorial markers.

11. The word “reinforces” in the passage is closest in meaning to

1. represents
2. differs from
3. expands on
4. supports

12. According to the passage, all of the following were true of the megaliths along the Atlantic seaboard EXCEPT:

1. They often had a main passageway.
2. They identified the individuals buried within them.
3. They were built before the Aegean Bronze Age.
4. They differed somewhat in style from region to region.

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

So it might seem that megaliths could not have been used by an individual community to mark its land.

Where would the sentence best fit?

Renfrew has studies two circumscribed areas, the Scottish islands of Arran and Rousay, to examine this hypothesis more closely. ◼ He found that a division of the arable land into territories, each containing one megalith, results in units that correspond in size to the individual farming communities of recent times in the same area. ◼ Each unit supported between 10 and 50 people. ◼ The labor needed to put up a megalith would probably be beyond the capabilities of a community this size. ◼ But Renfrew argues that the cooperation of other communities could be secured by some form of recognized social incentive—perhaps a period of feasting at which communal building was one of several activities.

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

Megaliths found along Europe’s Atlantic seaboard have long puzzled scholars.

A. The Bronze Age Aegeans most probably built some of the tombs in Iberia.

B. Scientific evidence supports the idea that the megaliths were a western and northern European invention.

C. Most megaliths are found in coastal regions, suggesting that people fishing may have used them to guide their travels.

D. Archeologists have found enough indicators to believe that the layout of tombs in the landscape reflects each community's social organization.

E. The high proportion of coastal megaliths has given rise to the idea that megalith building was related to fishing.

F. It has been suggested that megaliths arose in response to the spread of agriculture and competition for farmland.

Sociality in Animals

Social insects represent the high point of invertebrate evolution. Some species live in communities of millions, coordinating their building and foraging, their reproduction, and their offspring care. Yet sociality is found in only a few species of insects, and is rare among vertebrates as well: wildebeest (large antelope) and lions are the exception rather than the rule. Nearly all fish, amphibians, reptiles, birds, and mammals are solitary, except when courting and mating. Birds and mammals usually rear their young, but year-round family groups are almost unknown, though they are intensely studied where they do exist. The same is true for insects.

1. According to paragraph 1, which of the following is true of sociality among animal species

A. Sociality is much more common among invertebrates than among vertebrates.

B. Very few animals are considered social because most spend the majority of their lives alone.

C. An animal group must contain more than one family unit for the species to be considered social.

D. All animals that rear their young are considered to be social.

We know, or think we know, that social groups are good. Wolves are better predators when they hunt in packs, and pigeons escape from falcons far more often when feeding in flocks. Group building projects the dams beavers build to block a body of water that provides them with relative safety from predators and the lodges they build for shelter, for instance, can provide a high level of protection and comfort. Why, then, are social species so very rare? 【In fact, living socially presents inevitable problems that transcend habitat needs so that only when these costs are offset by corresponding benefits is group living a plus.】

2. 【In fact, living socially presents inevitable problems that transcend habitat needs so that only when these costs are offset by corresponding benefits is group living a plus.】

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. Group living allows some animals to transcend problems of habitat.

B. Group living is only advantageous when benefits outweigh inevitable problems.

C. Problems resulting from living socially extend beyond the habitat.

D. It is difficult to determine whether the benefits of social living offset its costs.

The most obvious cost is competition. All the members of a species share the same habitat; when they live together, they are trying to eat the same food and occupy the same nesting sites. In general, there is far less competition away from a group, and selection should favor any individual who (all things being equal) sets off on its own, leaving the members of its group behind to compete among themselves for limited resources. Another difficulty is that concentrations of individuals facilitate disease and parasite transmission. On the whole, social animals carry more parasites and species-specific diseases than do solitary animals. Parasites and diseases diminish the strength and limit the growth of animals, and among highly social creatures, epidemics can devastate whole populations. Distemper (a viral disease) has been known to wipe out entire colonies of seals, for instance. So the penalty of social life is potentially huge.

3. What does paragraph 3 say about the relationship between natural selection and animals that live apart from other members of their species

A. Natural selection does not favor living apart because individuals are unable to obtain resources equal to those of group members.

B. Natural selection does not favor living apart because of the intense competition for resources among individuals apart from a group.

C. Natural selection favors living apart because individuals are unlikely to attract the attention of predators.

D. Natural selection favors living apart because group living increases competition for limited resources of food and nesting sites.

4. The word devastate in the passage is closest in meaning to

A. alter

B. spread to

C. destroy

D. involve

5. In paragraph 3, why does the author mention distemper and its effect on seals

A. To explain why sociality is now relatively rare in seals

B. To prove that parasites prevent animals from growing healthy and strong

C. To show how easily social animals transmit potentially deadly diseases

D. To provide an example of a species-specific disease that affects solitary animals

But in some instances, the payoffs can be even greater. Two have already been mentioned: cooperative hunting and defensive groups. Social hunting is likely to evolve where prey is too large to be taken by individuals operating alone. To capture wildebeest some members of a group of lions follow their prey and herd them toward others lying in ambush. In other species, individuals forage or hunt simultaneously and share the food. Vampire bats that have had a bad day, for instance, are fed by more successful members of the community, but they are expected to return the favor in the future. Cooperation can even involve sharing information about the location of food. Some colonial birds, such as bank swallows, use the departure direction of a successful forager (food hunter) to locate concentrations of prey. Information transfer can be unintentional though some species make use of special assembly calls or behavior.

6. The word simultaneously in the passage is closest in meaning to

A. at the same time

B. in the same way

C. for the same reason

D. on the same scale

7. The word unintentional in the passage is closest in meaning to

A. unsuccessful

B. unplanned

C. inaccurate

D. impractical

8.According to paragraph 4, how do lions increase their chances of successfully hunting wildebeest

A. They work together as a team to chase and capture the animals.

B. They wait until groups of the animals come close to their hiding place.

C. They follow and catch the animals that are operating alone.

D. They focus on the smallest members of the species.

9. Which of the following can be inferred from paragraph 4 about how bank swallows find food cooperatively

A. They give special favors to members of their community that have been successful foragers.

B. They use special calls and signals to indicate to other swallows where food is located.

C. They observe the direction a successful forager took to locate prey.

D. They locate concentrations of prey by setting off in different directions.

Cooperation in group defense, such as we see in circles of musk oxen or elephants, is quite rare among vertebrates but is prevalent among the social insects. The strategy of employing many eyes to watch for danger, on the other hand, is widespread in birds and mammals. A herd of gazelles (small antelope) is far more likely to spot a lurking lion or a concealed cheetah than is a lone individual, and at a greater distance. In fact, a group enters into a kind of time-sharing arrangement in which individual antelope alternate biting off a mouthful of grass with a period of erect and watchful chewing. A larger group can afford more bites per individual per minute, there being more eyes to scan for danger. For a small antelope living in a forest where visibility is limited, however, remaining hidden is probably a better bet than assembling into noisy herds.

10. The word alternate in the passage is closest in meaning to

A. make a habit of

B. have conflicts over

C. show a preference for

D. take turns at

11.According to paragraph 5, how does cooperation help gazelles avoid predation

A. The herd forms a defensive circle around the weakest members of the group.

B. Because they share food, all of the animals are well nourished and ready to run.

C. The herd makes a lot of noise, which scares off predators.

D. Some animals watch for danger while others concentrate on feeding.

Among the millions of species of insects, only a few thousand are social. Those rarities are generally confined to termites and Hymenoptera. All termites are social: their diet (cellulose) requires that each generation feed a special kind of bacteria or fungi to the next generation to aid in its digestion. Of the numerous hymenopterans, some are social including all ants and a few bees and wasps but many are solitary.

12..Which of the following can be inferred from paragraph 6 about termites

A. They are the only insect species whose members are all social.

B. They have smaller communities than hymenopterans.

C. They are more independent than hymenopterans.

D. They have to live together to pass on digestive bacteria to their young.

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

The engineering of structures of such size and complexity is unknown among solitary animals.

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

We know, or think we know, that social groups are good.【A】Wolves are better predators when they hunt in packs, and pigeons escape from falcons far more often when feeding in flocks.【B】Group building projects the dams beavers build to block a body of water that provides them with relative safety from predators and the lodges they build for shelter, for instance, can provide a high level of protection and comfort..【C】Why, then, are social species so very rare?【D】In fact, living socially presents inevitable problems that transcend habitat needs so that only when these costs are offset by corresponding benefits is group living a plus.

14.. Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

A. Because birds and mammals engage in courting, mating, and establishing year-round family groups to rear young, they are most likely to be social species.

B. Living in communities presents disadvantages, such as the competition for resources and the easy transmission of diseases.

C. Some social animals obtain food through cooperation and share food and information about food sources with each other.

D. Some entire species of social animals have become extinct because of disease epidemics.

E. Social animals help each other watch for danger more effectively, and some species work together to combat predators.

F. Although some species of ants, bees, and wasps are famous for their sociality, most social insects are not hymenopterans.

Historical Trends in European Urban Design(此篇17年4月15日考了)

European city planning and design have a long history. Most Greek and Roman settlements were deliberately laid out on the grid system, within which the siting of key buildings was carefully thought out. The roots of modern Western urban planning and design can be traced to the Renaissance and Baroque periods (between the fifteenth and seventeenth centuries) in Europe, when artists and intellectuals dreamed of ideal cities, and rich and powerful regimes used urban design to produce extravagant symbolizations of wealth, power, and destiny. Inspired by the classical art forms of ancient Greece and Rome, Renaissance urban design sought to recast cities in a deliberate attempt to show off the power and the glory of the state and church.

1. In paragraph 1, why does the author mention that most Greek and Roman settlements were laid out on the grid system

A. To show how they resembled one another in terms of their layout

B. To support the claim that city planning had a long history in Europe

C. To help explain why cities of Renaissance and Baroque design were typically laid out in the form of a grid

D. To contrast the sophistication of Greek and Roman urban design with the simplicity of the urban design of the Renaissance and Baroque periods

2. The word regimes in the passage is closest in meaning to

A. cities

B. builders

C. governments

D. planners

3. According to paragraph 1, an important goal of Renaissance urban design was to

A. serve as an expression of the wealth and power of the ruling class

B. improve the classical forms of ancient Greek and Roman cities

C. show that the state rather than the church was the most powerful institution in a city

D. restore the religious and civic buildings of a city to their previous glory

Spreading slowly from its origins in Italy at the beginning of the fifteenth century, Renaissance design successfully diffused to most of the larger cities of Europe. Dramatic advances in weaponry brought a surge of planned redevelopment that featured impressive geometric-shaped fortifications and an extensive sloping, clear zone of fire. Inside new walls, cities were recast according to a new aesthetic of grand designfancy palaces, geometrical plans, streetscapes, and gardens that emphasized views of dramatic perspectives. These developments were often so extensive and so interconnected with each other that they effectively fixed the layout of cities well into the eighteenth, and even into the nineteenth, century, when walls and/or open spaces eventually made way for urban redevelopment in the form of parks, railway lines, or beltways.

4. Paragraph 2 supports the idea that important features typical of Renaissance urban design resulted from

A. Renaissance designers' improved understanding of geometry

B. the characteristics of new weaponry

C. an increased interest in highly productive gardens

D. the need to reduce the likelihood of fires

5. The phrase a surge of is closest in meaning to

A. a combination of

B. an altered approach to

C. a sudden increase in

D. a return to

As societies and economies became more complex with the transition to industrial capitalism, national rulers and city leaders looked to urban design to impose order, safety, and efficiency, as well as to symbolize the new seats of power and authority. The most important early precedent was set in Paris by Napoleon III, who presided over a comprehensive program of urban redevelopment and monumental urban design. The work was carried out by Baron Georges-Eugene Haussmann between 1853 and 1870. Haussmann demolished large sections of old Paris to make way for broad, new, tree-lined avenues, with numerous public open spaces and monuments. In doing so, he made the city not only more efficient (wide boulevards meant better flows of traffic) and a better place to live (parks and gardens allowed more fresh air and sunlight in a crowded city and were held to be a civilizing influence) but also safer from revolutionary politics (wide boulevards were hard to barricade; monuments and statues helped to instill a sense of pride and identity).

6..Paragraph 3 mentions each of the following as an accomplishment of Haussmann's redevelopment of Paris EXCEPT

A. improving the flow of traffic

B. making it harder for revolutionaries to be effective

C. improving housing in large sections of old Paris

D. bringing more fresh air and sunlight into the city

7. The word synthesizing in the passage is closest in meaning to

A. combining

B. simplifying

C. using

D. copying

The preferred architectural style for these new designs was the Beaux Arts style. In this school, architects were trained to draw on Classical, Renaissance, and Baroque styles, synthesizing them in designs for new buildings for the Industrial Age. The idea was that the new buildings would blend artfully with the older palaces, cathedrals, and civic buildings that dominated European city centers. Haussmann's ideas were widely influential and extensively copied.

8. According to paragraph 4, what was an advantage of the Beaux Arts style

A. It was especially well suited for industrial buildings.

B. It fit in well with important older buildings in European cities.

C. It could be easily copied by builders everywhere.

D. It allowed new buildings to be constructed much more efficiently.

Early in the twentieth century there emerged a different intellectual and artistic reaction to the pressures of industrialization and urbanization. This was the Modern movement, which was based on the idea that buildings and cities should be designed and run like machines.【A】Equally important to the Modernists was that urban design should not simply reflect dominant social and cultural values but, rather, help to create a new moral and social order.【B】The movement's best-known advocate was Le Corbusier, a Paris-based Swiss who provided the inspiration for technocratic urban design.【C】Modernist buildings sought to dramatize technology, exploit industrial production techniques, and use modern materials and unembellished, functional design. Le Corbusier's ideal city featured linear clusters of high-density, medium-rise apartment blocks, elevated on stilts and segregated from industrial districts; high-rise tower office blocks; and transportation routes all separated by broad expanses of public open space.【D】

9. According to paragraph 5, Modernist urban design differed from previous urban design styles in that it

A. meant to contribute to a new moral and social order

B. was heavily influenced by the work of one urban planner

C. was a reaction to social and economic changes

D. was intended to make cities more beautiful

10.The word elevated in the passage is closest in meaning to

A. raised

B. imagined

C. separated

D. designed

11.Paragraph 5 supports the idea that Le Corbusier held which of the following views

A. Industrial production techniques should be used only for buildings in industrial districts.

B. Different types of activities that go on in a city should be kept physically separated from each other.

C. All the buildings in a city should be about the same height and of similar design.

D. Major transportation routes should be kept at a significant distance from cities.

After 1945 this concept of urban design became pervasive, part of what became known as the International Style: boxlike steel-frame buildings with concrete-and-glass facades. The International Style was avant-garde yet respectable and, above all, comparatively inexpensive to build. This tradition of urban design, more than anything else, has imposed a measure of uniformity on cities around the world.

12.According to paragraph 6, the International Style became widespread partly because

A. it was a style that combined many traditional national styles

B. it was a style that emerged independently in city after city

C. building in that style tended to produce uniform results

D. building in that style tended to cost less

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

This mechanical analogy was a significant departure from earlier attitudes that emphasized the civilizing influence of cities and their buildings.

Where would the sentence best fit?

Early in the twentieth century there emerged a different intellectual and artistic reaction to the pressures of industrialization and urbanization. This was the Modern movement, which was based on the idea that buildings and cities should be designed and run like machines.【A】Equally important to the Modernists was that urban design should not simply reflect dominant social and cultural values but, rather, help to create a new moral and social order.【B】The movement's best-known advocate was Le Corbusier, a Paris-based Swiss who provided the inspiration for technocratic urban design.【C】Modernist buildings sought to dramatize technology, exploit industrial production techniques, and use modern materials and unembellished, functional design. Le Corbusier's ideal city featured linear clusters of high-density, medium-rise apartment blocks, elevated on stilts and segregated from industrial districts; high-rise tower office blocks; and transportation routesall separated by broad expanses of public open space.【D】

14. Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. Beginning in fifteenth-century Italy, advances in weaponry led to the redesign of cities, and a new aesthetic of grand design inspired by classical art forms took hold.

B. The walls and open spaces typical of Renaissance urban design were re-discovered in the early twentieth century and became a major component of the Modern movement.

C. The social changes brought about by the transition to industrial capitalism placed new demands on urban planners that could only be met by adopting new design styles.

D. The redevelopment of Paris in the mid-1800s displayed a new idea of urban design to make cities orderly, efficient, and healthier and to positively reflect the new social and economic order.

E. The goal of Beaux Arts style architects was to replace the older palaces, cathedrals, and civic buildings that dominated European cities with modern buildings.

F. The twentieth-century International Style's boxlike steel, glass, and concrete buildings arose from the Modernist view that buildings and cities should be designed and run like machines.

Origins of the Megaliths：

Origins of the Megaliths答案：1-5. D B C B B; 6-10. A C A C A; 11-14. D B D BEF

Sociality in Animals

Sociality in Animals答案：1-5. B B D C C; 6-10. A B A C D; 11-14. D D C BCD

Historical Trends in European Urban Design(此篇17年4月15日考了)

Historical Trends in European Urban Design答案：B C A B C; C A B A A; B C A 146

第20套

Architectural Change in Eighth-Century Japan

Paragraph 1

Japanese construction techniques and architectural styles changed in the eighth century C.E. from more traditional Japanese models to imported continental (especially Chinese) modes. Several factors contributed to this, in particular with respect to the creation of two new capital cities. In essence, changes then occurring in Japanese political life were rendering past arrangements for the rulers’ headquarters obsolete, and continental models offered an alternative.

1. The phrase “In essence” in the passage is closest in meaning to
2. Actually
3. Basically
4. However
5. Moreover

Paragraph 2

To elaborate, before the eighth century, the elite marriage practice, which was an important instrument of political alliance making, had encouraged rulers to maintain multiple palaces that of their own family and those of their spouses, who commonly remained at or near their native family headquarters, at least for some years after marriage. These arrangements had the effect of encouraging frequent changes in royal residence as children matured and marriage alliances changed. The customs of multiple palaces and a moveable court were feasible as long as a ruling group was modest in size and its architectural practices relatively simple.

1. 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.
2. The elaborate marriage customs of the elite encouraged spouses to remain at their family palace for several years after marriage.
3. Rulers maintained multiple palaces for themselves and their spouses’ families.
4. Before the eighth century, it was common for the elite to form political alliances with their spouses’ families at the native family headquarters for some years after marriage.
5. Before the eighth century, the practice of forming alliances through marriage encouraged rulers to maintain palaces at their spouses’ family homes as well as at their own.
6. The word “feasible” in the passage is closest in meaning to
7. practical
8. customary
9. acceptable
10. supported

Paragraph 3

Moreover, because buildings using the traditional construction of thatched roofs and wooden poles placed directly in the ground rotted away in two decades or so, periodic replacement of palaces, shrines, warehouses, gate towers, and fortress walls was essential. The custom of residential mobility was thus not especially wasteful of labor and material resources: when the time came, one simply erected a new building at a new site—reusing valuable timbers as appropriate—and burned the rest. The practical necessity of replacement was given religious sanction because the regular replacement of buildings was regarded as necessary to provide spiritual cleansing of the site.

1. In paragraph 3, why does the author discuss the natural decay of the wooden structures built in eighth-century Japan?
2. To argue that the necessity of replacing buildings every two decades applied to all eighth-century structures, not just residence
3. To argue that the custom of residential mobility was not unreasonable given the building practices of the eighth century
4. To explain why the elite of the eighth century had to move periodically to new residences
5. To explain why in the sixth and seventh centuries Japanese architectural practice changed to the construction of more permanent structures
6. According to paragraph 3, each of the following was true of the practice of periodic replacement of buildings EXCEPT:
7. It was followed for a wide variety of structures.
8. It involved the reuse of building materials that were still good.
9. Ordinary Japanese considered it a waste of time and energy.
10. Over the years it became a religious ritual.

Paragraph 4

As rulers of the sixth and seventh centuries expanded their realm, however, they acquired more and more underlings, administrative paraphernalia, weaponry, and tribute goods, and they needed more and more buildings to house them. As the scale of government grew, moreover, it became more important to have these people and resources close at hand where they could be more easily controlled and utilized. Under these circumstances, frequent moves by the court or replacement of buildings became more costly, even prohibitive.

1. The word “scale” in the passage is closest in meaning to
2. importance
3. duties
4. needs
5. Size
6. According to paragraph 4, what problem did traditional architectural practices create for rulers of the sixth and seventh centuries?
7. It was difficult to bring the necessary people and construction materials together to replace buildings periodically.
8. It was very expensive to move and house the large number of people that were now associated with the government.
9. It was impractical to construct buildings large enough to house the growing numbers of people and resources.
10. It was too time-consuming for rulers to supervise the construction of all the necessary buildings.

Paragraph 5

A solution to the problem was advocated by experts from the continent. This was the use of continental principles of urban design and techniques of construction. These produced geometrically laid out capital cities whose major gates and buildings employed stone foundations, mortise-and-tenon framing (a technique for attaching timbers), and tile roofs that largely eliminated the problem of rot and the consequent need for replacement.

1. The word “advocated” in the passage is closest in meaning to
2. discovered
3. solved
4. promoted
5. questioned

Paragraph 6

On the other hand, to construct cities and buildings of that sort required so much labor and material that their use effectively precluded periodic replacement or the transfer of a royal headquarters from site to site. Nevertheless, the notion of grand buildings and capital cities became immensely attractive to Japanese rulers during the seventh and eighth centuries. Continental regimes, the glorious new Chinese dynasties most notably, had them: they constituted an expression of political triumph, a legitimizing symbol of the first order. Moreover, the architecture was an integral part of Buddhism, and acceptance of this religion in Japan at this time fostered adoption of its building style.

1. According to paragraph 6, Japanese rulers were strongly attracted to continental architecture because
2. permanent buildings could be constructed at very low cost
3. adopting the continental architecture would not have an effect on religious practices in Japan
4. political power could be expressed by constructing grand buildings
5. important buildings could be replaced quickly by means of the latest technology
6. What can be inferred from paragraph 6 about Japanese rulers during the seventh and eighth centuries?
7. They were well aware of, and strongly influenced by, developments in the royal courts of China.
8. They strongly opposed the spread of the Buddhist religion.
9. They saw the influence of continental regimes as a threat to local traditions.
10. They sought to increase their mobility by adopting changes in architecture.
11. The word “fostered” in the passage is closest in meaning to
12. quickened
13. initiated
14. determined
15. Encouraged

These several confliction factors—the need to modify palace and capital arrangements but the difficulty of doing so, the wish to enjoy grandeur but the reluctance to settle for a single, immobile court—all became evident by the mid-seventh century. Change did come, but slowly, and in the end a compromise system was devised. Traditional shrines of Shinto, the native religion of Japan, and many residential buildings continued to be built in the rottable, replaceable style that accommodated religious concerns and taboos, while city gates, major government buildings, and Buddhist temples were built in the continental fashion that met the need for permanence and grandeur. Moreover, the wish of rulers to maintain multiple palaces fit with the custom of certain continental regimes that maintained summer palaces or other regional capitals where rulers could periodically reside on a temporary basis.

1. Which of the following is true of the compromise system mentioned in Paragraph 7?
2. Major government buildings combined the techniques of traditional and continental architecture.
3. The continuing desire of rulers to maintain multiple palaces was taken into account.
4. The balance of traditional and continental architecture was quickly achieved.
5. Shinto shrines and most residences were constructed using continental architecture.
6. Look at the four squares [◼ ] that indicate where the following sentence could be added to the passage.

Such temporary residences might have enabled Japanese rulers to better control the people living far from the main capital.

Where would the sentence best fit?

These several confliction factors—the need to modify palace and capital arrangements but the difficulty of doing so, the wish to enjoy grandeur but the reluctance to settle for a single, immobile court—all became evident by the mid-seventh century. ◼ Change did come, but slowly, and in the end a compromise system was devised. ◼ Traditional shrines of Shinto, the native religion of Japan, and many residential buildings continued to be built in the rottable, replaceable style that accommodated religious concerns and taboos, while city gates, major government buildings, and Buddhist temples were built in the continental fashion that met the need for permanence and grandeur. ◼ Moreover, the wish of rulers to maintain multiple palaces fit with the custom of certain continental regimes that maintained summer palaces or other regional capitals where rulers could periodically reside on a temporary basis. ◼

1. 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 the express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.

During the eighth century C.E. there was a significant change in Japanese construction techniques and architectural styles.

1. Chinese architectural styles had influenced traditional Japanese architecture long before eighth-century Japanese rulers decided to create larger cities.
2. As religious ideas changed, it no longer was acceptable to construct buildings out of materials that required constant replacement.
3. Several factors complicated the architectural change, but a compromise system that considered both traditional and practical needs was eventually developed.
4. Before the eighth century, the palaces of the elite were relatively simple structures that could be easily built, repaired, and replaced.
5. Rulers’ desire for grand palaces conflicted with the expense of having multiple courts, which they also wanted, but a compromise was achieved in the eighth century.
6. Many areas in Japan were quick to adopt the changes in architectural styles, while other areas were more reluctant.

Origin of the Solar System

Paragraph 1

The orderly nature of our solar system leads most astronomers to conclude that the planets formed at essentially the same time and from the same primordial (original) material as the Sun. This material formed a vast cloud of dust and gases called a nebula. The nebular hypothesis suggests that all bodies of the solar system formed from an enormous nebular cloud consisting mostly of hydrogen and helium as well as a small percent of all the other heavier elements known to exist. The heavier substances in this frigid cloud of dust and gases consisted mostly of such elements as silicon, aluminum, iron, and calcium—the substances of today’s common rocky materials. Also prevalent were other familiar elements, including oxygen, carbon, and nitrogen.

1. According to paragraph 1, which of the following best describes the “nebular hypothesis”?
2. Our solar system formed from a large cloud consisting mostly of Hydrogen and helium and of small amounts of other elements.
3. Our solar system formed from gases and heavier elements thrown off by the Sun as it rotated in the center of the nebular cloud.
4. The primordial matter that evolved into our solar system consisted mostly of familiar elements such as oxygen, carbon, and nitrogen.
5. A cloud of dust and gases gathered into a rotating nebula composed mostly of the rocky materials seen on Earth today.
6. The word “frigid” in the passage is closest in meaning to
7. moving
8. giant
9. original
10. cold

Paragraph 2

Nearly five billion years ago, some external influence, such as a shock wave traveling from a catastrophic explosion (supernova), may have triggered the collapse of this huge cloud of gases and minute grains of heavier elements, causing the cloud to begin to slowly contract due to the gravitational interactions among its particles. As this slowly spiraling nebula contracted, it rotated faster and faster for the same reason ice-skaters do when they draw their arms toward their bodies. Eventually, the inward pull of gravity came into balance with the outward force caused by the rotational motion of the nebula. By this time the once vast cloud had assumed a flat disk shape with a large concentration of material at its center, called the protosun (pre-Sun). Astronomers are fairly confident that the nebular cloud formed a disk because similar structures have been detected around other stars.

1. 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.
2. Possibly due to some explosion about five billion years ago, this nebular cloud began to collapse, causing gravitational contractions as its particles interacted.
3. About five billion years ago, a supernova may have exploded, causing a huge cloud of gases and heavier elements to form.
4. Gravitational attraction among particles of gases and heavier elements caused some explosive event nearly five billion years ago.
5. About five billion years ago, a shock wave from an external event caused this huge cloud of gases to collapse into small grains of heavier elements.
6. In paragraph 2, why does the author describe how ice-skaters use their arms to increase their speed of rotation?
7. To help describe the armlike structures on a spiraling nebula
8. To help explain why a nebula rotates faster when it contracts
9. To show why spinning ice-skaters are not pulled down by gravity
10. To show how the motion of a nebula differs from that of an ice-skater
11. The word “detected” in the passage is closest in meaning to
12. formed
13. predicted
14. discovered
15. Recorded
16. According to paragraph 2, why do astronomers believe that the nebular cloud formed a disk around the protosun?
17. They can still see some debris from the disk.
18. They have observed that disks have formed around other stars.
19. They know that any rotating cloud of gas tends to contract into a disk shape.
20. They have conducted experiments with gravity that have confirmed their belief.

Paragraph 3

During the collapse, gravitational energy was converted to thermal energy (heat), causing the temperature of the inner portion of the nebula to dramatically rise. At such high temperatures, the dust grains broke up into molecules and energized atomic particles. However, at distances beyond the orbit of Mars, the temperatures probable remained quite low. At -200。C, the tiny particles in the outer portion of the nebula were likely covered. With a thick layer of ices made of frozen water, carbon dioxide, ammonia, and methane. Some of this material still resides in the outermost reaches of the solar system in a region called the Oort cloud.

1. According to paragraph 3, which of the following best explains why the inner part of the nebula became hotter as the nebula contracted?
2. The nebula rose in temperature as its speed of rotation increased.
3. Atomic particles in the nebula gave off more heat when they became energized.
4. The dust grains broke up into smaller parts, allowing more light from the Sun to reach the inner portion of the nebula.
5. As the nebula collapsed, its gravitational energy was changed into heat energy.

Paragraph 4

The formation of the Sun marked the end of the period of contraction and thus the end of gravitational heating. Temperatures in the region where the inner planets now reside began to decline. The decrease in temperature caused those substances with high melting points to condense into tiny particles that began to coalesce (join together). Such materials as iron and nickel and the elements of which the rock-forming minerals are composed—silicon, calcium, sodium, and so forth—formed metallic and rocky clumps that orbited the Sun. Repeated collisions caused these masses to coalesce into larger asteroid-size bodies, called protoplanets, which in a few tens of millions of years accumulated into the four inner planets we call Mercury, Venus, Earth, and Mars. Not all of these clumps of matter were incorporated into the protoplanets. Rocky and metallic pieces that still remain in orbit are called meteoroids.

1. According to paragraph 4, the protoplanets formed by
2. gravitational interactions among meteoroids
3. increases in the gravitational pull of the Sun
4. the warming of the nebular cloud
5. collisions between materials orbiting the Sun
6. According to paragraph 4, all of the following occurred when the nebula stopped contracting EXCEPT:
7. Gravitational interactions between heavier elements decreased.
8. Temperatures declined in the area of the inner planets.
9. Some elements formed rocky masses that orbited the Sun.
10. Protoplanets were formed.

Paragraph 5

As more and more material was swept up by the inner planets, the high-velocity impact of nebular debris caused the temperatures of these bodies to rise. Because of their relatively high temperatures and weak gravitational fields, the inner planets were unable to accumulate much of the lighter components of the nebular cloud. The lightest of these, hydrogen and helium, were eventually whisked from the inner solar system by the solar winds.

Paragraph 6

At the same time that the inner planets were forming, the larger, outer planets (Jupiter, Saturn, Uranus, and Neptune), along with their extensive satellite systems, were also developing. Because of low temperatures far from the Sun, the material from which these planets formed contained a high percentage of ices—water, carbon dioxide, ammonia, and methane—as well as rocky and metallic debris. The accumulation of ices partly accounts for the large sizes and low densities of the outer planets. The two most massive planets, Jupiter and Saturn, had surface gravities sufficient to attract and hold large quantities of even the lightest elements—hydrogen and helium.

1. What can be inferred from paragraph 6 about the role that gravity on the outer planets plays in their having low densities?
2. The forces of gravity from the outer planets increase the speed of the solar winds, causing the winds to carry away the heavier, denser elements.
3. The outer planets’ strong gravities capture low-density ices from the outer reaches of the solar system.
4. Gravity on the outer planets is strong enough to prevent lighter elements from escaping.
5. The strong gravity on the outer planets results in high-velocity impacts with nebular debris, causing their denser elements to be carried away into space.
6. The word “extensive” in the passage is closest in meaning to
7. developing
8. large
9. complex
10. Centralized
11. The phrase “accounts for” in the passage is closest in meaning to
12. explains
13. creates
14. encourages
15. Illustrates
16. Look at the four squares [◼ ] that indicate where the following sentence could be added to the passage.

In other words, as the outer parts of a rotating mass are pulled inward, the speed of rotation increases.

Where would the sentence best fit?

Nearly five billion years ago, some external influence, such as a shock wave traveling from a catastrophic explosion (supernova), may have triggered the collapse of this huge cloud of gases and minute grains of heavier elements, causing the cloud to begin to slowly contract due to the gravitational interactions among its particles. ◼ As this slowly spiraling nebula contracted, it rotated faster and faster for the same reason ice-skaters do when they draw their arms toward their bodies. ◼ Eventually, the inward pull of gravity came into balance with the outward force caused by the rotational motion of the nebula. ◼ By this time the once vast cloud had assumed a flat disk shape with a large concentration of material at its center, called the protosun (pre-Sun). ◼ Astronomers are fairly confident that the nebular cloud formed a disk because similar structures have been detected around other stars.

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Our Sun and planets formed at about the same time from a collection of dust and gases called a nebular cloud.

1. The early solar system was made mostly of heavier materials, such as rock-forming minerals, with a small percentage of light elements such as hydrogen, helium, oxygen, carbon, and nitrogen.
2. As the outer parts of the nebular cloud cooled, they became home to a region or rocky and metallic debris known as meteoroids.
3. The inner planets formed when certain minerals collided and coalesced into larger bodies with high temperatures and weak gravitational fields that were not able to retain the lightest elements.
4. Perhaps as the result of an explosive event, the nebular cloud collapsed and began contracting as gravity caused its particles to interact.
5. A supernova sent a shock wave through the nebular cloud, causing it to expand until its heavier elements were forced to the outer solar system.
6. Being farther from the Sun, the outer planets were cooler than the inner plants, giving them a higher percentage of elements in the form of ice and a large quantity of the lightest gases: hydrogen and helium.

Plant and Animal Life of the Pacific Islands

Paragraph1

There are both great similarities and considerable diversity in the ecosystems that evolved on the islands of Oceania in and around the Pacific Ocean. [A] The islands, such as New Zealand, that were originally parts of continents still carry some small plant and animal remnants of their earlier biota (animal and plant life), and they also have been extensively modified by evolution, adaptation, and the arrival of new species. [B] By contrast, the other islands, which emerged via geological processes such as volcanism, possessed no terrestrial life, but over long periods, winds, ocean currents, and the feet, feathers, and digestive tracts of birds brought the seeds of plants and a few species of animals. [C] Only those species with ways of spreading to these islands were able to undertake the long journeys, and the various factors at play resulted in diverse combinations of new colonists on the islands. One estimate is that the distribution of plants was 75 percent by birds, 23 percent by floating, and only 2 percent by wind. [D]

1. The word remnants in the passage is closest in meaning to

A. remainders

B. reminders

C. reproductions

D. resemblances

2. According to paragraph 1, how did the majority of plant species arrive on islands created by geological processes such as volcanism

A. They were transported by ocean currents.

B. They were carried to the islands by birds.

C. They were brought to the islands by humans.

D. They were transported by winds.

Paragraph 2

The migration of Oceanic biota was generally from west to east, with four major factors influencing their distribution and establishment. The first was the size and fertility of the islands on which they landed, with larger islands able to provide hospitality for a wider range of species. Second, the further east the islands, generally the less the species diversity, largely because of the distance that had to be crossed and because the eastern islands tended to be smaller, more scattered, and remote. This easterly decline in species diversity is well demonstrated by birds and coral fish. It is estimated that there were over 550 species of birds in New Guinea, 127 in the Solomon Islands, 54 in Fiji, and 17 in the Society Islands. From the west across the Pacific, the Bismarck Archipelago and the Solomon Islands have more than 90 families of shore fish (with many species within the families), Fiji has 50 families, and the Society Islands have 30. Third, the latitude of the islands also influenced the biotic mix, as those islands in relatively cooler latitudes, notably New Zealand, were unsuited to supporting some of the tropical plants with which Pacific islands are generally associated.

3. The word remote in the passage is closest in meaning to

A. unknown

B. isolated

C. hostile

D. infertile

4. In paragraph 2, what is the author's purpose in mentioning the estimated numbers of birds and coral fish species on various Oceanic islands

A. To give examples of the wide range of species that can be found on Oceanic islands

B. To demonstrate how much knowledge about Oceanic species has been accumulated

C. To illustrate the decline in species diversity from west to east on Oceanic islands

D. To identify the influence of latitude upon Oceanic plants and animals

5. 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. Because of its latitude, New Zealand had a relatively cooler climate than other Pacific islands.

B. New Zealand, like other Pacific islands, showed the effects of latitudes on its rich tropical plants.

C. Because the latitudinal position of an island also affected its biotic mix, islands in cooler latitudes did not support some tropical species typical of the Pacific islands.

D. Pacific islands were notable for their impressive biotic mix and association with tropical plants.

6. According to paragraph 2, all of the following types of islands are associated with higher species diversity EXCEPT

A. islands that are large in size

B. islands located in cool latitudes

C. islands located in the western part of Oceania

D. islands located near other landmasses

Paragraph 3

Finally, a fourth major factor in species distribution, and indeed in the shaping of Pacific ecosystems, was wind. It takes little experience on Pacific islands to be aware that there are prevailing winds. To the north of the equator these are called north-easterlies, while to the south they are called south-easterlies. Further south, from about 30o south, the winds are generally from the west. As a result on nearly every island of significant size there is an ecological difference between its windward and leeward (away from the wind) sides. Apart from the wind action itself on plants and soils, wind has a major effect on rain distribution. The Big Island of Hawaii offers a prime example; one can leave Kona on the leeward side in brilliant sunshine and drive across to the windward side where the city of Hilo is blanketed in mist and rain.

7.The Big Island of Hawaii is discussed in the passage as an example of

A. the relationship between latitude and wind

B. how prevailing winds influence rainfall patterns

C. the relationship between rainfall and species distribution

D. the effects of wind action upon plants and soils

8.What can be inferred from paragraph 3 about Kona and Hilo

A. The ecosystems of Kona and Hilo differ from each other.

B. Kona and Hilo have approximately the same rainfall in a given year.

C. Kona receives northeasterly winds while Hilo receives southeasterly winds.

D. Both Kona and Hilo have plants and soils that are often damaged by winds.

Paragraph 4

While such localized plant life and climatic conditions are very noticeable, over Oceania as a whole there is relatively little biodiversity, and the smaller the island and the further east it lies, the less there is likely to be. When humans moved beyond the islands of Near Oceania (Australia, New Guinea, and the Solomon Islands), they encountered no indigenous mammals except for flying foxes, fruit bats, and seals on some islands. Other vertebrate species were restricted to flying animals and a few small reptiles. However, local adaptations and evolution over long periods of isolation promoted fascinating species adaptations to local conditions. Perhaps most notable, in the absence of mammals and other predators, are the many species of flightless and ground-nesting birds. Another consequence of evolution was that many small environments boasted their own endemic (native) species, often small in number, unused to serious predation, limited in range, and therefore vulnerable to disruption. In Hawaii, for example, the highly adapted 39 species and subspecies of honeycreepers, several hundred species of fruit flies, and more than 750 species of tree snails are often cited to epitomize the extent of localized Oceanic endemism (species being native to the area).

9.The word cited in the passage is closest in meaning to

A. expected

B. believed

C. compared

D. mentioned

10. According to paragraph 4, why have species of flightless and ground-nesting birds become so numerous on Oceanic islands

A. They have no predators on the islands.

B. They were some of the strongest species to arrive on the islands.

C. They live closer to their food sources than other species do.

D. They are affected less by climatic changes than other animals are.

11.Which of the following is NOT mentioned in paragraph 4 about the species that live on Oceanic islands

A. Certain species are native only to particular islands.

B. Species that are native to Oceanic islands include relatively few mammals.

C. Populations of most species are small in number.

D. Some species have evolved over time to become predators.

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

When varied ecosystems are present, they can be explained as resulting in part from the process that formed the islands.

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

There are both great similarities and considerable diversity in the ecosystems that evolved on the islands of Oceania in and around the Pacific Ocean. [A] The islands, such as New Zealand, that were originally parts of continents still carry some small plant and animal remnants of their earlier biota (animal and plant life), and they also have been extensively modified by evolution, adaptation, and the arrival of new species. [B] By contrast, the other islands, which emerged via geological processes such as volcanism, possessed no terrestrial life, but over long periods, winds, ocean currents, and the feet, feathers, and digestive tracts of birds brought the seeds of plants and a few species of animals. [C] Only those species with ways of spreading to these islands were able to undertake the long journeys, and the various factors at play resulted in diverse combinations of new colonists on the islands. One estimate is that the distribution of plants was 75 percent by birds, 23 percent by floating, and only 2 percent by wind. [D]

13. Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. Unlike Oceanic islands that were once part of continental landmasses, islands formed by such geological processes as volcanism contain only plants and animals that could be transported there.

B. Species distribution in Oceania is determined by the location of islands, their size, and the direction of the wind.

C. An island's size is less important than its latitude in determining species diversity.

D. Most Oceanic islands are similar to one another in latitude and contain plants and animals typical of tropical islands.

E. Though biodiversity is low on many Oceanic islands, many native species have evolved that are uniquely adapted to their local environments.

F. The absence of natural predators on the eastern Oceanic islands allowed many species of large mammals to evolve that were capable of inhabiting a wide range of territory.

Architectural Change in Eighth-Century Japan

Architectural Change in Eighth-Century Japan答案: B D A B C D B C C A D B D CDE

Origin of the Solar System

Origin of the Solar System答案：A D A B C B D D A C B A B CDF

Plant and Animal Life of the Pacific Islands

Plant and Animal Life of the Pacific Islands答案：ABBCC BBADA DA ABE

第21套

The First Eyes（17年3月考过）

Putting a date on the first appearance of eyes depends on what one means by eye. If the term refers to a multicellular organ, even if it has just a few cells, then by definition, eyes could not form before there were multicellular animals. But many protists (animal-like, plantlike, or fungus-like unicellular organisms that require a water-based environment) can detect light by using aggregations of pigment molecules, and they use this information to modify their metabolic activity or motility (the ability to move spontaneously and independently). One of the familiar living examples, probably known to anyone who has taken a biology class, is the aquatic protozoan Euglena, which has an eyespot near its motile flagellum (hairlike structure). Some living protists are very like their ancestral forms embedded in ancient sedimentary rocks, and this similarity suggests that the ability to detect light and modify behavior in response to light has been around for a very long time. Animals arose from one of such unicellular creatures, perhaps from one already specialized for a primitive kind of vision.

1. The word aggregations in the passage is closest in meaning to

A. parts

B. reactions

C. groups

D. types

2..Paragraph 1 supports all of the following statements about protists EXCEPT:

A. Some are multicellular.

B. Some are able to move.

C. Some have pigment molecules.

D. They live in environments that contain moisture.

3..According to paragraph 1, what have scientists concluded from the fact that some living protists are very like their ancestral forms

A. The eye did not evolve until multicellular organisms arose.

B. The ability to detect light and change behavior in response to light has existed for a long time.

C. The ancestral forms of these living protists likely had an eyespot near the motile ﬂagellum.

D. The ancestral forms of these living protists depended primarily on light as the mechanism for modifying their metabolic activity or motility.

An eye is a collection of cells that are specialized for light detection through the presence of photosensitive pigment as well as a means of restricting the direction of incoming light that will strike the photosensitive cells. This definition says nothing about image formation, lenses, eye movements, or any of the other features we associate with our own eyes, but it does recognize the simplest form of functional and anatomical specialisation namely, detection of light. Everything else can be built up from this simple beginning, and some animals appear to have had eyes almost from the beginning of the animal kingdom.

4. The word lateral in the passage indicates a location at the

A. front

B. back

C. top

D. side

5..Paragraph 2 implies which of the following about the early eyes

A. They were able to detect simple movements almost from the beginning of their evolution.

B. They were not as sensitive to light as once thought.

C. They could not form images.

D. Their cells had more photosensitive pigment than do human eyes.

Animals were scarce 600 million years ago in the geological era called the Precambrian. 【There are very few fossil remains from that time (though more keep turning up), and most evidence of the presence of animals is indirect, such as small tunnels in rock that could be ancient worm burrowings.】 But just 50 million years or so later, fossilized bits and pieces of animals abound, suggesting that a great burst of evolutionary creativity occurred in the 50-million-year interval. This surge of new life, marked by an abundance of animals, is called the Cambrian explosion.

1. 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.

【There are very few fossil remains from that time (though more keep turning up), and most evidence of the presence of animals is indirect, such as small tunnels in rock that could be ancient worm burrowings.】

A. There are few fossils from the Precambrian, though more keep turning up.

B. Most evidence of animals in the fossil record is indirect and little of it is from the Precambrian.

C. Tunnels in Precambrian rocks that may have been made by worms provide indirect evidence of these animals existing at that time.

D. There are very few fossils of animals from the Precambrian and most evidence of animal life from that period is indirect.

7. According to paragraph 3, the Cambrian period was characterized by

A. a great abundance of animals

B. a slow rate of animal extinction

C. the rapid fossilization of animals

D. an increase in the life span of some animals

8. The phrase little short of miraculous is closest in meaning to

A. very highly valued

B. amazing because almost impossible

C. causing controversy

D. almost but not quite complete

The first direct evidence for the early origin of eyes comes from fossils that are about 530 million years old, a time shortly after the Cambrian explosion; they were found on a mountainside in British Columbia in a deposit known as the Burgess Shale. The Burgess Shale fossils are extraordinarily important because among them are remains of soft-bodied creatures, many of them lacking shells and other hard parts that fossilize easily. Consequently, their preservation is little short of miraculous (as are the delicate methods used to reconstruct three-dimensional structure from these flattened fossils), and they are one of the few known repositories of early soft-bodied animals.

9. According to paragraph 4, all of the following are true of the Burgess Shale EXCEPT:

A. Its fossils were in a flattened condition when discovered.

B. Its fossils provide direct evidence about the origin of eyes.

C. It contains fossils of both Precambrian and Cambrian animals.

D. It contains fossilized remains of soft-bodied organisms.

Not all of the Burgess animals had eyes. However, some did. (Gross features location, size, and hemispheric shape are responsible for the designation of some structures as eyes). The reconstructed eyes of these Burgess animals look superficially like eyes of some living crustaceans, particularly those of shrimp and crabs whose eyes are mounted on stalks that improve the range of vision by raising the eyes above the surface of the head. The eyes of some Burgess organisms sat on stalks; those of others were on or a part of the body surface. One animal, Opabinia, had five eyes: two lateral pairs and a single medial eye; at least one of the lateral pairs had stalks that could have been movable. And some trilobite-like animals in the Burgess Shale had faceted eyes much like those of later fossil trilobites.

10. The word designation in the passage is closest in meaning to

A. evolution

B. identification

C. reconstruction

D. confusion

11. Why does the author point out that The eyes of some Burgess organisms sat on stalks

A. To suggest that some Burgess organisms had a greater range of vision than do living shrimp and crabs

B. To explain why it is thought that one of the lateral pairs of eyes in Opabinia may have been movable

C. To explain why the eyes of some Burgess animals were not recognizable as such before they were reconstructed

D. To support the statement that the reconstructed eyes of Burgess animals look superﬁcially like the eyes of some living crustaceans

Although the presence of eyes on some of the Burgess animals indicates that eyes have been around for a very long time, it is unlikely that these were the first eyes; they seem much too large and (potentially) well developed to be brand new inventions. The best we can do is put the origin of eyes somewhere between the beginning of the Cambrian explosion, about 600 million years ago, and the death of the Burgess animals, some 530 million years ago.

12. Paragraph 6 suggests that the first eyes probably

A. came into existence long before 600 million years ago

B. came into existence at a late point in the Cambrian period

C. existed before the animals of the Burgess Shale existed

D. were larger than those of animals found in the Burgess Shale

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

Molaria spinifera and H. optata, both of which lived in water levels beyond the reach of light, fit into this category.

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

Not all of the Burgess animals had eyes. However, some did. (Gross features location, size, and hemispheric shape are responsible for the designation of some structures as eyes).【】 The reconstructed eyes of these Burgess animals look superficially like eyes of some living crustaceans, particularly those of shrimp and crabs whose eyes are mounted on stalks that improve the range of vision by raising the eyes above the surface of the head. 【】The eyes of some Burgess organisms sat on stalks; those of others were on or a part of the body surface. 【】One animal, Opabinia, had five eyes: two lateral pairs and a single medial eye; at least one of the lateral pairs had stalks that could have been movable.【】 And some trilobite-like animals in the Burgess Shale had faceted eyes much like those of later fossil trilobites.

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. The ability of some unicellular organisms to detect light and change their behavior accordingly suggests that eyes did not originate with multicellular animals.

B. The earliest eyes apparently contained molecules that were capable of forming and focusing images.

C. Too few fossils from the Precambrian have been found to determine which if any Precambrian organisms had eyes.

D. Evidence from the Burgess Shale suggests that eyes of some early animals were similar to the eyes of living crustaceans.

E. Fossil evidence suggests that organisms in the Burgess Shale with faceted eyes developed later than organisms in the Burgess Shale with nonfaceted eyes.

F. The large size and possible complexity of the eyes of some organisms in the Burgess Shale suggest that their eyes were not the ﬁrst eyes.

The Origin of Earth's Atmosphere

In order to understand the origin of Earth's atmosphere, we must go back to the earliest days of the solar system, before the planets themselves were formed from a disk of rocky material spinning around the young Sun. This material gradually coalesced into lumps called planetesimals as gravity and chance smashed smaller pieces together, a chaotic and violent process that became more so as planetesimals grew in size and gravitational pull. Within each orbit, collisions between planetesimals generated immense heat and energy. How violent these processes were is suggested by the odd tilt and spin of many of the planets, which indicate that each of the planets was, like a billiard ball, struck at some stage by another large body of some kind. Visual evidence of these processes can be seen by looking at the Moon. Because the Moon has no atmosphere, its surface is not subject to erosion, so it retains the marks of its early history. Its face is deeply scarred by millions of meteoric impacts, as you can see on a clear night with a pair of binoculars. The early Earth did not have much of an atmosphere. Before it grew to full size, its gravitational pull was insufficient to prevent gases from drifting off into space, while the solar wind (the great stream of atomic particles emitted from the Sun) had already driven away much of the gaseous material from the inner orbits of the solar system. So we must imagine the early Earth as a mixture of rocky materials, metals, and trapped gases, subject to constant bombardment by smaller planetesimals and without much of an atmosphere.

1. The word chaotic in the passage is closest in meaning to

A. rapid

B. disorganized

C. intense

D. long-lasting

2. All of the following are true of the planetesimals mentioned in paragraph 1 EXCEPT:

A. They were formed of rocky material spinning around the early Sun.

B. They collided violently with each other.

C. They gradually grew in size.

D. They lost their atmospheres as they were hit by larger bodies.

3. The word retains in the passage is closest in meaning to

A. reveals

B. acquires

C. hides

D. preserves

4. The author discusses the Moon in paragraph 1 in order to

A. help explain why Earth had fewer meteoric impacts than other planets in the solar system

B. show why it is difficult to understand how the ﬁrst planetary atmospheres developed

C. help explain the processes that took place in the formation of large planetary bodies in the solar

system

D. illustrate why the Moon's spin and tilt are unique among other planetary bodies in the solar system

As it began to reach full size, Earth heated up, partly because of collisions with other planetesimals and partly because of increasing internal pressures as it grew in size. In addition, the early Earth contained abundant radioactive materials, also a source of heat. As Earth heated up, its interior melted. Within the molten interior, under the influence of gravity, different elements were sorted out by density. By about 40 million years after the formation of the solar system, most of the heavier metallic elements in the early Earth, such as iron and nickel, had sunk through the hot sludge to the center, giving Earth a core dominated by iron.This metallic core gives Earth its characteristic magnetic field, which has played an extremely important role in the history of our planet.

5. The word constant in the passage is closest in meaning to

A. considerable

B. unpredictable

C. continual

D. violent

6. Paragraph 2 answers which of the following questions about early Earth

A. What caused materials on Earth to become radioactive

B. What percentage of Earth's core was nickel

C. What internal pressures caused Earth to heat up as it grew in size

D. What caused Earth's magnetic field

7. According to paragraph 2, Earth's core is mostly iron because, compared to most other elements on early Earth, iron

A. was denser

B. melted more easily

C. was more radioactive

D. was more plentiful

As heavy materials headed for the center of Earth, lighter silicates (such as the mineral quartz) drifted upward. The denser silicates formed Earth's mantle, a region almost 3,000 kilometers thick between the core and the crust. With the help of bombardment by comets, whose many impacts scarred and heated Earth's surface, the lightest silicates rose to Earth's surface, where they cooled more rapidly than the better-insulated materials in Earth's interior. These lighter materials, such as the rocks we call granites, formed a layer of continental crust about 35 kilometers thick. Relative to Earth as a whole, this is as thin as an eggshell. Seafloor crust is even thinner, at about 7 kilometers; thus, even continental crust reaches only about 1/200th of the way to Earth's core. Much of the early continental crust has remained on Earth's surface to the present day.

8. Select the TWO answer choices that, according to paragraph 3, indicate true statements about Earth's formation. To obtain credit, you must select TWO answer choices.

A. Comets hitting Earth helped the lightest silicates to reach Earth's surface.

B. Silicates such as mineral quartz drifted downward and mixed with denser materials as they reached Earth's core.

C. When Earth's mantle became approximately 3,000 kilometers thick, the heaviest materials in it began to cool.

D. Lighter materials reaching Earth's surface formed Earth's continental crust.

9. According to paragraph 3, Earth's continental crust

A. has changed signiﬁcantly in composition over time

B. was as thick as Earth's mantle in its early stages

C. is very thin relative to Earth's size

D. caused the temperatures of Earth's early core and mantle to gradually increase

10. The word coalesced in the passage is closest in meaning to

A. collided

B. joined

C. changed

D. shrank

11. The word emitted in the passage is closest in meaning to

A. released

B. consumed

C. contained

D. heated

The lightest materials of all, including gases such as hydrogen and helium, bubbled through Earth's interior to the surface. So we can imagine the surface of the early Earth as a massive volcanic field. And we can judge pretty well what gases bubbled up to that surface by analyzing the mixture of gases emitted by volcanoes. These include hydrogen, helium, methane, water vapor, nitrogen, ammonia, and hydrogen sulfide. Other materials, including large amounts of water vapor, were brought in by cometary bombardments. Much of the hydrogen and helium escaped; but once Earth was fully formed, it was large enough for its gravitational field to hold most of the remaining gases, and these formed Earth's first stable atmosphere.

12. What can be inferred from paragraph 4 about Earth's first stable atmosphere

A. It existed before Earth was yet fully formed.

B. It contained very little hydrogen and helium.

C. It contained only materials that had bubbled up through Earth's surface.

D. It lacked water vapor.

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

Even some of its oldest portions as old as 3.8 billion years can still be found in parts of Canada, Australia, South Africa, and Greenland.

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

As heavy materials headed for the center of Earth, lighter silicates (such as the mineral quartz) drifted upward. The denser silicates formed Earth's mantle, a region almost 3,000 kilometers thick between the core and the crust. With the help of bombardment by comets, whose many impacts scarred and heated Earth's surface, the lightest silicates rose to Earth's surface, where they cooled more rapidly than the better-insulated materials in Earth's interior. These lighter materials, such as the rocks we call granites, formed a layer of continental crust about 35 kilometers thick.【A】 Relative to Earth as a whole, this is as thin as an eggshell.【B】Seafloor crust is even thinner, at about 7 kilometers; thus, even continental crust reaches only about 1/200th of the way to Earth's core.【C】Much of the early continental crust has remained on Earth's surface to the present day.【D】

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A. Early Earth's lack of an atmosphere explains why it was bombarded with much more frequency and violence than other planetesimals.

B. Continued bombardments and internal pressures made the growing Earth hotter, causing its interior to melt and the heavier elements to sink and form Earth's core.

C. Lighter elements from Earth's interior rose and formed the mantle, a denser layer of silicates around the core, and the crust, a thinner layer of silicates at Earth's surface.

D. The formation of Earth's crust protected the inner layers of Earth from the high-energy particles in space, reducing the temperatures of the mantle and the core.

E. Once Earth had gone through the ﬁnal stages of its formation, gases bubbled to the surface and were held by Earth's gravitational field to form the atmosphere.

F. Volcanoes today are the result of gases that were trapped in Earth's interior during the planet's early stages of formation.

The Emergence of Civilization

Paragraph 1

Starting around 8000 B.C.E., the most extensive exploitation of agriculture occurred in river valleys, where there were both good soil and a dependable water supply regardless of the amount of rainfall. In the Near East, this happened in the Fertile Crescent, the region extending up the Nile Valley in Egypt, north through the Levant (Palestine, Lebanon, and Syria), and southeast into the Tigris and Euphrates river valleys of Mesopotamia. The richest soil was located in the deltas at the mouths of the rivers, but the deltas were swampy and subject to flooding. Before they could be farmed, they needed to be drained and irrigated, and flood-control systems had to be constructed. These activities required administrative organization and the ability to mobilize large pools of labor. In Mesopotamia, perhaps as a consequence of a period of drought, massive land-use projects were undertaken after 4000 B.C.E. to cultivate the rich delta soils of the Tigris and Euphrates Rivers. The land was so productive that many more people could be fed, and a great population explosion resulted. Villages grew into cities of tens of thousands of persons.

1. Which of the following helps explain why “the most extensive exploitation of agriculture occurred in river valleys”?

* In river valleys farmers did not have to depend on rain for water.
* The soil in river valleys did not require irrigation.
* Swampy areas in river valleys were easy to drain.
* The expanding populations in river valleys provided large pools of labor.

1. Why does the author mention “a period of drought”?

* To help explain why the richest soils in the Near East were located in the deltas at the mouths of the Tigris and Euphrates Rivers
* To suggest a reason for undertaking the massive effort to make the deltas of the Tigris and Euphrates Rivers farmable
* To identify a condition that often affected agricultural production in Mesopotamia
* To support the idea that mobilizing large pools of labor after 4000 B.C.E. required significant administrative organization

1. Accordingto paragraph 1, what was one result of the farming systems developed in river deltas in the Near East?

* There was a large increase in the overall amount of food produced.
* Large pools of labor became available to perform administrative tasks.
* The soil in these deltas grew much richer.
* The number of farming villages surrounding cities increased.

Paragraph 2

These large cities needed some form of centralized administration. Archaeological evidence indicates that the organization initially was provided by religion, for the largest building in each city was a massive temple honoring one of the Mesopotamian gods. In Uruk, for example, a 60-foot-long temple known as the White House was built before 3000 B.C.E. There were no other large public buildings, suggesting that the priests who were in charge of the temples also were responsible for governing the city and organizing people to work in the fields and on irrigation projects building and maintaining systems of ditches and dams.

1. According to paragraph 2, the fact that temples appear to have been the only large public buildings in Mesopotamian cities has been interpreted as evidence that these cities

* needed some form of central administration
* were initially administered by priests
* were all governed from Uruk
* had difficulty organizing workers for building projects

Paragraph 3

The great concentration of wealth and resources in the river valleys brought with it further technological advances, such as wheeled vehicles, multicolored pottery and the pottery wheel, and the weaving of wool garments. Advances in metal technology just before 2000 B.C.E. resulted in the creation of bronze, a durable alloy (or mixture) of about 90 percent copper and 10 percent tin that provided a sharp cutting edge for weapons.

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

* existing for a long time without significant damage
* difficult to produce
* recently discovered
* extremely useful

1. Paragraph 3 indicates that technological advances affected all of the following EXCEPT

* transportation
* clothing manufacture
* warfare and hunting
* the distribution of wealth and resources

Paragraph 4

By 3000 B.C.E., the economies and administrations of Mesopotamia and Egypt had become so complex that some form of record keeping was needed. As a result, writing was invented. Once a society became literate, it passed from the period known as prehistory into the historic period. In fact, the word “history” comes from a Greek word meaning “narrative”—people could not provide a detailed permanent account of their past until they were able to write.

1. According to paragraph 4, why was writing invented?

* To reduce unnecessary social complexity
* To keep economic and administrative records
* To record oral historical narratives
* To help people better understand their own past

Paragraph 5

The totality of these developments resulted in the appearance, around 3000 B.C.E., of a new form of culture called civilization. The first civilizations had several defining characteristics. They had economies based on agriculture. They had cities that functioned as administrative centers and usually had large populations. They had different social classes, such as free persons and slaves. They had specialization of labor, that is, different people serving, for example, as rulers, priests, craft workers, merchants, soldiers, and farmers. And they had metal technology and a system of writing. As of 3000 B.C.E., civilization in these terms existed in Mesopotamia, Egypt, India, and China.

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

* important
* obvious
* identifying
* interesting

1. According to paragraph 5, all of the following are true of the first civilizations EXCEPT:

* Their soldiers and priests also worked as farmers.
* Their populations were divided into different social classes.
* They had developed technologies for working with metals.
* They were typically administered from large cities.

Paragraph 6

This first phase of civilization is called the Bronze Age because of the importance of metal technology. The most characteristic Near Eastern Bronze Age civilizations, those of Mesopotamia and Egypt, were located in river valleys, were based on the extensive exploitation of agriculture, and supported large populations. Bronze was a valuable commodity in these civilizations, the copper and tin needed for its manufacture did not exist in river valleys and had to be imported. Bronze was therefore used mainly for luxury items, such as jewelry or weapons, not for everyday domestic items, which were made from pottery, animal products, wood, and stone. In particular, bronze was not used for farming tools. Thus, early civilizations based on large-scale agriculture, such as those of Mesopotamia and Egypt, were feasible only in soils that could be worked by wooden plows pulled by people or draft animals such as oxen. Other Bronze Age civilizations, however, such as those that arose in the Levant and eastern Mediterranean took advantage of their location on communication routes to pursue economies based on trade.

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

* practical
* household
* standard
* necessary

1. According toparagraph 6, why was bronze not used for farming tools in Bronze Age civilizations of the Near East?

* Wooden farming tools were more effective in the soils of the region.
* Bronze farming tools would have deteriorated quickly in the climate.
* Bronze was too expensive to use for farming tools.
* People had not yet discovered how to make farming tools out of bronze.

1. According to paragraph 6, which of the following was true of at least some civilizations of the Bronze Age?

* They did not develop urban centers with large populations.
* They did not use metals to make bronze.
* They had an economy that was not based on agriculture.
* They did not use bronze for luxury items such as jewelry.

Paragraph 6

This first phase of civilization is called the Bronze Age because of the importance of metal technology. The most characteristic Near Eastern Bronze Age civilizations, those of Mesopotamia and Egypt, were located in river valleys, were based on the extensive exploitation of agriculture, and supported large populations. ■Bronze was a valuable commodity in these civilizations, the copper and tin needed for its manufacture did not exist in river valleys and had to be imported. ■Bronze was therefore used mainly for luxury items, such as jewelry or weapons, not for everyday domestic items, which were made from pottery, animal products, wood, and stone. ■In particular, bronze was not used for farming tools. ■Thus, early civilizations based on large-scale agriculture, such as those of Mesopotamia and Egypt, were feasible only in soils that could be worked by wooden plows pulled by people or draft animals such as oxen. Other Bronze Age civilizations, however, such as those that arose in the Levant and eastern Mediterranean took advantage of their location on communication routes to pursue economies based on trade.

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

This significantly limited the availability of bronze.

Where would the sentence best fit?

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

After 4000 B.C.E., organized drainage and flood-control projects in the Fertile Crescent allowed cultivation of river deltas and led to large population increases.

●

●

●

Answer Choices

A. Before the rise of large cities with complex economies, there had been no need for any kind of administrative structure to organize workers, and thus religion tended to be the only source of authority.

B. By 3000 B.C.E., a number of agricultural societies had emerged as civilization characterized by large cities, centralized administrations, specialization of labor, class divisions, metal technology, and writing.

C. Although river-valley societies had to import the metals for making bronze, the first phase of civilization is known as the Bronze Age because of the importance of metal technology in these societies.

D. Large cities functioned as administrative centers, creating a concentration of wealth and resources that stimulated technological advances, such as the invention of writing and the creation of bronze.

E. For a culture to be considered a civilization, it must have independently invented its own form of writing and become generally literate, thereby moving from prehistory into the historic period.

F. The creation of bronze made it possible for civilizations based on large-scale agriculture to be located far away from the river valleys.

The First Eyes

The First Eyes答案：C A B D C; D A B C B; D C B CDF

The Origin of Earth's Atmosphere

The Origin of Earth's Atmosphere答案: B D D C C; D A [AD] C A; A C D BCE

The Emergence of Civilization答案：ABABA, DBCAB, CCB, 234

第22套

Colonial America and the Navigation Acts

Paragraph 1

In the seventeenth and eighteenth centuries, the British parliament enacted a number of laws, called Navigation Acts, governing commerce between Britain and its overseas colonies. For example, the Navigation Acts of 1660 and 1663 barred the empire’s colonial merchants from exporting such commodities as sugar and tobacco anywhere except to England and from importing goods in non-English ships. Similarly, the Molasses Act of 1733 taxed all foreign molasses (a thick liquid drained from sugarcane and used to make rum) entering the mainland American colonies at sixpence per gallon. This act was intended less to raise revenue than to serve as a protective tariff (tax) that would benefit British West Indian sugar producers at the expense of their French rivals. By 1750 a long series of Navigation Acts were in force, with several effects on the North American colonial economy.

1. According to paragraph 1, the Navigation Acts of 1660 and 1663 did not allow

* importing goods without paying taxes on them
* importing goods made outside the British Empire
* using English ships to transport goods to non-British colonies
* using non-English ships to bring in goods from outside the colonies

1. What was the purpose of “the Molasses Act of 1733”?

* To produce the funds needed to protect British West Indian sugar producers from attack by the French
* To give British sugar producers in the West Indies an advantage over their French rivals
* To prevent rum from being made outside of the British West Indies
* To discourage the mainland American colonies from importing molasses

Paragraph 2

For one thing, the laws limited all imperial trade to British ships, defined as those with British ownership and crews that were three-quarters British. For purposes of the legislation, Parliament classified all colonists as British. This restriction not only contributed to Great Britain’s rise as Europe’s foremost shipping nation but also laid the foundations for an American shipbuilding industry and merchant marine. By the 1750s one-third of all imperial vessels were American-owned, mostly by merchants in the northeast and in mid-Atlantic colonies. The swift growth of this merchant marine diversified the northern colonial economy and made it more self-sufficient. The expansion of colonial shipping in turn accelerated urbanization by creating a need for centralized docks, warehouses, and repair shops in the colonies. By 1770 Philadelphia and New York City had emerged as two of the British Empire’s busiest ports.

1. The word “swift” in the passage is closet in meaning to

* gradual
* fast
* protective
* long-term

1. According to paragraph 2, the Navigation Acts had all of the following effects on the northern colonies in North America EXCEPT:

* The region’s economic dependence on Britain declined.
* The region’s ports became increasingly busy.
* Shipbuilding and related industries grew in strength.
* Ownership of vessels by merchants in the northeast and mid-Atlantic colonies declined.

Paragraph 3

The Navigation Acts also barred the export of certain “enumerated goods” to foreign nations unless those items first passed through England or Scotland. The American mainland’s chief items of this sort were tobacco, rice, furs, indigo (a Carolina plant that produced a blue dye), and naval supplies (such as masts and tar). Parliament never restricted grain, livestock, fish, lumber, or rum, which altogether made up 60 percent of American colonial exports. Furthermore, Anglo-American exporters of tobacco and rice—the chief commodities affected by enumeration—had their burdens reduced by two significant concessions. First, Parliament gave tobacco growers a monopoly over the British market by excluding foreign tobacco, even though this hurt British consumers. (Rice planters enjoyed a natural monopoly because they had no competitors.) Second, Parliament tried to minimize the added cost of landing tobacco and rice in Britain (where customs officials collected duties on both) by refunding the duties on all tobacco and rice that the colonists later shipped to other countries.

1. Select the TWO answer choices that, according to paragraph 3, indicate how the Navigation Acts affected rice and tobacco exporters. To receive credit, you must select TWO answer choices.

* They first had to ship their products to either England or Scotland before shipping them elsewhere.
* Their exports were reduced by 60 percent.
* They received special concessions by Parliament.
* They had to use their own ships to export their products.

1. The author mentions “grain, livestock, fish, lumber, or rum” in the passage in order to

* indicate the colonial exports that were affected by enumeration
* provide examples of important commodities that had not been allowed to be exported before the Navigation Acts were introduced
* explain why Britain decided to introduce the Navigation Acts
* show how North American exporters quickly increased the exports of certain products to compensate for the restrictions imposed by the Navigation Acts

1. The word “significant” in the passage is closet in meaning to

* problematic
* considerable
* minor
* temporary

Paragraph 4

The navigation system’s impact on the colonies encouraged economic diversification as well. Parliament used British tax money to pay modest incentives to Americans producing such items as silk, iron, dyes, hemp, and lumber, which Britain would otherwise have had to import from other countries, and it raised the price of commercial rivals’ imports by imposing protective tariffs on them. The trade laws did prohibit Anglo-Americans from competing with large-scale British manufacturing of certain products, most notably clothing. However, colonial tailors, hatters, and other small clothes manufacturers could continue to make any item of dress in their households or small shops. Manufactured by low-paid labor, British clothing imports generally undersold whatever the colonists could have produced given their higher labor costs. The colonists were also free to produce iron and built numerous ironworks.

1. The word “modest” in the passage is closet in meaning to

* direct
* relatively small
* adequate
* various

1. Paragraph 4 supports which of the following statements about why Britain did not pass laws restricting the small-scale manufacture of clothing in the colonies?

* Such clothing presented no serious competition to clothing imported from Britain.
* The British realized that any attempt to enforce such laws would be ineffective.
* Clothing manufactured in the American colonies generally did not sell well in Britain.
* The quality of clothing produced in the colonies was lower than that of British clothing.

Paragraph 5

Finally, the Navigation Acts made the colonies a protected market for low-priced consumer goods and other exports from Britain. 【Steady overseas demand for colonial products created a prosperity that enabled colonists to consume ever-larger amounts not only of clothing but of dishware, home furnishings, tea, and a range of other items both produced in Britain and imported by British and colonial merchants from elsewhere.】 Consequently, the share of British exports sold to the colonies rapidly increased from just 5 percent in 1700 to almost 40 percent by 1760. Cheap imported goods enabled many colonists to adopt a lifestyle similar to that of middle-class Britons.

1. 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.

* British and colonial merchants prospered because of a demand in the colonies for increasing amounts of consumer goods made in Britain.
* Both the colonists and the British increasingly consumed clothing and other household items imported from foreign countries by colonial merchants.
* The wealth gained from exporting their products enabled the colonists to buy increasing quantities of consumer goods brought into North America by British and colonial merchants.
* As merchants increased their wealth, they began to widen the range of products they exported from North America to Britain and the British colonies elsewhere.

Paragraph 5

Finally, the Navigation Acts made the colonies a protected market for low-priced consumer goods and other exports from Britain. Steady overseas demand for colonial products created a prosperity that enabled colonists to consume ever-larger amounts not only of clothing but of dishware, home furnishings, tea, and a range of other items both produced in Britain and imported by British and colonial merchants from elsewhere. Consequently, the share of British exports sold to the colonies rapidly increased from just 5 percent in 1700 to almost 40 percent by 1760. Cheap imported goods enabled many colonists to adopt a lifestyle similar to that of middle-class Britons.

1. The word “Consequently” in the passage is closet in meaning to

* However
* Similarly
* In addition
* Therefore

1. According to paragraph 5, which of the following was one effect that the Navigation Acts had during the period from 1700 to 1760?

* They reduced the attractiveness of most locally produced commodities for the American colonists.
* They protected colonial merchants from having to compete with low-priced imports.
* They greatly increased the importance of the American colonies as purchasers of British exports.
* They raised the production costs for many commodities manufactured in the American colonies.

Paragraph 3

The Navigation Acts also barred the export of certain “enumerated goods” to foreign nations unless those items first passed through England or Scotland. The American mainland’s chief items of this sort were tobacco, rice, furs, indigo (a Carolina plant that produced a blue dye), and naval supplies (such as masts and tar). Parliament never restricted grain, livestock, fish, lumber, or rum, which altogether made up 60 percent of American colonial exports. Furthermore, Anglo-American exporters of tobacco and rice—the chief commodities affected by enumeration—had their burdens reduced by two significant concessions. ■ First, Parliament gave tobacco growers a monopoly over the British market by excluding foreign tobacco, even though this hurt British consumers. ■ (Rice planters enjoyed a natural monopoly because they had no competitors.) ■ Second, Parliament tried to minimize the added cost of landing tobacco and rice in Britain (where customs officials collected duties on both) by refunding the duties on all tobacco and rice that the colonists later shipped to other countries. ■

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

About 85 percent of all North American tobacco and rice was eventually reexported and sold outside the British Empire.

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

1. 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 answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

The Navigation Acts put in place by Britain had significant effects on the economy of the American colonies.

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Answer Choices

The acts were originally designed to force the French to gradually abandon their American colonies.

Although the acts restricted colonists from exporting certain goods directly to foreign nations, important colonial products enjoyed both reduced duties and a monopoly of the British market.

The British refusal to allow tobacco imports from foreign nations hurt both British consumers and the American colonial tobacco planters.

The acts limited trade with the Empire to British ships, but by classifying all colonists as British, the acts allowed North Americans to develop their own ships.

High tariffs on imports from the colonies served to protect British-made goods from having to compete with the less expensive goods the colonists could produce using low-cost labor.

Trade laws protected some British manufacturing from colonial competition but encouraged colonial economic prosperity while making cheap British consumer goods ready available.

Mass Production: Method and Impact

Paragraph 1

The technological and managerial innovations of Thomas Alva Edison (the inventor of electricity) and the industrial leaders Andrew Carnegie (iron and steel) and John D. Rockefeller (oil) proved readily adaptable throughout United States industry, spurring marvels of productivity. Late-nineteenth-century industrialists often discovered that their factories produced more goods than the market could absorb. This was particular true in two kinds of businesses: those that manufactured devices for individual use, such as sewing machines and farm implements, and those that mass-produced consumer goods, such as matches, flour, soap, canned foods, and processed meats. Not surprisingly, these industries were trailblazers in developing advertising and marketing techniques. Strategies for encouraging consumer demand and for differentiating one product from another were an important component of the American post-Civil War industrial transformation.

1. The word “component” in the passage is closet in meaning to

* theme
* development
* part
* tool

2. According to paragraph 1, which of the following statements is true of Edison, Carnegie, and Rockefeller?

* They were famous inventors who became rich factory owners.
* They were the first to develop advertising and marketing techniques.
* Their ideas and methods were used to transform United States industry.
* Their companies produced mechanical devices and consumer goods.

3. According to paragraph 1, all of the following contributed to the industrial transformation in the post-Civil War United States EXCEPT

* a greater variety of consumer products
* new technological and managerial methods
* mass production of goods
* development of advertising and marketing techniques

Paragraph 2

The growth of the flour industry illustrates both the spread of mass production and the emergence of new marketing concepts. In the 1870s the nation’s flour mills adopted the most advanced European manufacturing technologies and installed continuous-process machines that graded, cleaned, hulled, and packaged their product in one rapid operation. These companies, however, soon produced more flour than they could see. To sell this excess, the mills thought up new product lines, such as cake flours and breakfast cereals, and sold them using easy-to-remember brand names.

4. According to paragraph 2, the new technologies used by the flour mills led the flour industry to do which of the following?

* Produce additional flour to export to Europe
* Adopt European methods of marketing flour to consumers
* Produce goods based on market research of customer needs
* Develop special new products with easily recognizable names

Paragraph 3

Through brand names, trademarks, guarantees, and slogans, manufacturers built demand for their products and won remarkable consumer loyalty. Americans in large numbers bought a brand of soap first made in 1897 in Cincinnati, Ohio, because of the absurd overly precise but impressive pledge that it was ”99 and 44/100ths percent pure.” In the photographic field, George Eastman in the 1880s developed a paper-based photographic film as an alternate to the bulky, fragile glass plates then in use. Manufacturing a cheap camera for the masses and devising a catchy slogan (“you just press the button, we do the rest”). Eastman introduced a system whereby customers returned the 100-exposure film and the camera to the Rochester, New York, factory. There the film was developed, the camera reloaded, and everything shipped back to the customer—for a charge of ten dollars. In marketing a new technology, Eastman had revolutionized an industry and democratized a visual medium previously confined to a few.

5. The word “remarkable” in the passage is closet in meaning to

* immediate
* extraordinary
* apparent
* steady

6. Why does the author mention a soap advertised as “99 and 44/100ths percent pure”?

* To make the point that the earliest product advertisements were very sophisticated
* To support the claim that advertising was effective in building demand and customer loyalty
* To suggest that the claims made by soap manufacturers were obviously untrue
* To contrast the ways in which soap and photographic processing were marketed

7. The phrase “confined to” in the passage is closet in meaning to

* available to
* known to
* limited to
* attractive to

8. According to paragraph 3, which of the following statements about George Eastman’s innovations in photography is true?

* He introduced a paper-based photographic film that was easy for customers to develop on their own.
* He manufactured a camera that was more expensive but easier to operate than earlier cameras.
* He introduced a system in which customers could exchange defective film and cameras for new ones.
* He provided customers with the service of developing their film and reloading their cameras.

Paragraph 4

By 1900 the chaos of early industrial competition, when thousands of small companies had struggled to enter a national market, had given way to an economy dominated by a few enormous films. An industrial transformation that originated in railroading and expanded to steel and petroleum had spread to every area of United States business, and for those who could not compete in the era’s unforgiving economic environment, the cost could be measured in ruined fortunes, bankrupted companies, and shattered dreams. John D. Rockefeller, talking about businesses he wanted to acquire, said he wanted “only the big ones, one those who have already proved they can do a big business. As for the others, unfortunately they will have to die.”

9. According to paragraph 4, which of the following is true of the economic situation of the United States in the 1900s?

* A group of national industries was controlled by a single company.
* Many small companies failed and a few large companies dominated the economy.
* The expansion of the steel and petroleum industries depended on the railroad companies.
* A new national market made it possible for thousands of small companies to compete for business.

Paragraph 5

The cost was high, too, for millions of American workers, immigrant and native born alike. The new industrial order was built on the backs of an army of laborers who were paid subsistence wages and who could be fired on a moment’s notice when hard times or new technologies made them expendable. Moreover, industrialization often devastated the environment with pollution in the relentless drive for efficiency and profit.

10. The word “relentless” in the passage is closet in meaning to

* competitive
* unceasing
* reckless
* passionate

11. Which of the following can be inferred about the new technologies mentioned in paragraph 5?

* They were sometimes too expensive to introduce in the workplace.
* They forced laborers to work in more systematic ways.
* They helped to reduce the impact of industrialization on the environment.
* They helped make it possible for industries to reduce the workforce.

Paragraph 5

The cost was high, too, for millions of American workers, immigrant and native born alike. The new industrial order was built on the backs of an army of laborers who were paid subsistence wages and who could be fired on a moment’s notice when hard times or new technologies made them expendable. Moreover, industrialization often devastated the environment with pollution in the relentless drive for efficiency and profit.

Paragraph 6

To be sure, this industrial revolution brought social benefits as well, in the form of labor-saving products, lower prices, and advances in transportation and communications. The benefits and liabilities were inextricably interconnected. The sewing machine, for example, created thousands of new factory jobs, made available a wider variety of clothing, and eased the lives of millions of consumers. At the same time, it encouraged greedy entrepreneurs to operate factories in which the poor worked long hours in unhealthy conditions pitifully low wages.

12. According to paragraphs 5 and 6, the transformation of United States industry had all of the following negative effects EXCEPT

* higher prices for consumers
* environmental pollution
* unhealthy working conditions
* low pay for hard work

Paragraph 7

Whatever the final balance sheet of social gains and costs, one thing was clear: the United States had forced its way onto the world stage as an industrial nation, and the groundwork had been laid for a new social and economic order in the twentieth century.

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

Edison’s laboratory in Menlo Park, New Jersey, even became a model for the industrial research laboratories established by other corporations.

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

Paragraph 1

The technological and managerial innovations of Thomas Alva Edison (the inventor of electricity) and the industrial leaders Andrew Carnegie (iron and steel) and John D. Rockefeller (oil) proved readily adaptable throughout United States industry, spurring marvels of productivity. ■ Late-nineteenth-century industrialists often discovered that their factories produced more goods than the market could absorb. ■ This was particular true in two kinds of businesses: those that manufactured devices for individual use, such as sewing machines and farm implements, and those that mass-produced consumer goods, such as matches, flour, soap, canned foods, and processed meats. ■ Not surprisingly, these industries were trailblazers in developing advertising and marketing techniques. ■ Strategies for encouraging consumer demand and for differentiating one product from another were an important component of the American post-Civil War industrial transformation.

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

In the late nineteenth century, technological and managerial innovations greatly raised productivity and transformed United States industry.

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Answer Choices

A. Thomas Alva Edison, Andrew Carnegie, and John D. Rockefeller invented new technologies and management systems for the electrical, iron, steel, and oil industries.

B. Americans became loyal consumers of manufactured products like breakfast cereal and soap primarily because of the high quality associated with the brand names.

C. An economy characterized by competition between numerous small companies gave way to an economy in which only a few major companies were able to survive and dominate.

D. As manufacturers produced more goods than the market could easily absorb, they developed new advertising and marketing techniques to stimulate demand for their products.

E. George Eastman succeeded in creating a mass market for cameras not only by lowering manufacturing costs and selling prices but also by offering to develop film free of charge.

F. The industrial transformation brought a number of social benefits, but it also encouraged the exploitation of workers and polluted the environment.

Art and Culture of Pacific Northwest Communities

Paragraph 1

The 1,600-kilometer stretch of the northwestern Pacific coast of North America (from southern Alaska to Washington State) provided an ideal environment for the growth of stable communities. Despite the northerly latitude, the climate is temperate. Natural resources were originally so rich that the inhabitants could subsist by fishing and hunting and gathering, without the need to domesticate stock or cultivate the land. Forests yielded an abundance of wood for buildings, for boats, and for sculpture. Beyond them the Rocky Mountains were an impenetrable barrier against raids. The area appears to have been settled around 500 A.D. by tribes of diverse origins speaking mutually unintelligible languages: from north to south they include the Tlingit, the Haida, the Tsimshian, the Bella Coola, the Kwakiutl, and the Nootka. The culture to which they contributed has, nevertheless, an underlying homogeneity and a distinct visual character.

1. According to paragraph 1, which of the following was NOT one of the factors that made the northwestern Pacific coast perfect for the development of stable communities?

* Temperate climate
* Natural protection from raids
* Abundant natural resources
* Easily cultivated land

2. When the author states that the tribes speak “mutually unintelligible” languages, this means that the tribes

* speak languages of similar difficulty
* cannot understand each other’s languages
* cannot understand the languages of tribes in neighboring areas
* understand the languages of tribes of similar origin

Paragraph 2

The peoples of the Northwest engaged in trade as well as warfare with one another, and this may account for the diffusion of cultural traits and artistic motifs throughout the area. Much of their art was concerned with religious ritual objects. But the rest is secular and springs from a preoccupation with the hereditary basis of their complex social structures.

3. The word “diffusion” in the passage is closet in meaning to

* development
* variety
* similarity
* spread

Paragraph 3

The Tlingit and other nations or language groups were collections of autonomous village communities composed of one or more families, each with its own chief, who inherited his position through matrilineal descent. They had no centralized political or religious organization, but cohesion was given by extensive kinship networks established through marriage, and men and women were obliged to many outside the larger divisions of clans and moieties (tribal subdivisions) into which they were born and into which the social group was divided by matrilineal or patrilineal descent. Thus families built up riches by marriage without any one family acquiring a dominant position

4. According to paragraph 3, what held together the collections of village communities?

* The control of one dominant family
* The establishment of wide kinship networks through marriage
* The participation in common religious practices
* The establishment of a central administrative authority

5. The word “autonomous” in the passage is closet in meaning to

* small
* well organized
* independent
* wealthy

6. The word “obliged” in the passage is closet in meaning to

* required
* allowed
* forbidden
* advised

Paragraph 4

Totem poles (see figure below), the most distinctive artistic product of the Northwest, were conspicuous declarations of prestige and of the genealogy (family history) by which it had been attained. These magnificent sculptures that probably originated as funerary monuments were first described by travelers in the late eighteenth century. Each one was carved from a single trunk of cedar, and the increasing availability of metal tools both permitted and encouraged more complex compositions and greater height—up to 27.4 meters. Their superimposed figures—eagles, beavers, whales, and so on—were crests (symbols of identity) that a chief inherited from his lineage, his clan, and his moiety. They were not objects of worship, though the animals carved on them might represent guardian spirits. Poles were designed according to a governing principle of bilateral symmetry, with their various elements interlocked so that they seem to grow organically out of one another, creating a unity of symbolism, form, and surface.

7. According to paragraph 4, what was the significance of totem poles in the culture of the northwestern peoples?

* They showed a family’s status and history.
* They were thought to increase success in hunting.
* They were objects of worship.
* They were battle monuments.

8. According to paragraph 4, all of the following were true of totem poles EXCEPT:

* Each was made from a single tree.
* They sometimes featured images of animals thought to provide protection against harm.
* Larger numbers began to be made after metal tools became increasingly available.
* Their decorative designs became more complex over time.

Paragraph 5

Masks (see figure above) are the most varied of the carvings from the Northwest, where they were an essential part of communal life. In style they range from an almost abstract symbolism to combinations of human and animal features and to a lifelike naturalism sometimes bordering on caricature (a style that strongly exaggerates features or characteristics), taken to its extreme in Tlingit war helmets. Some differences must have been due to those among the cultures in which they were created, but their place of origin cannot always be ascertained as they seem to have passed from one contiguous nation to another in the course of trade or warfare. Although carvers worked according to established conventions, no two masks are identical and those with basic similarities reveal varying degrees of skill.

9. The author mentions “Tlingit war helmets” in the passage to

* explain why masks were an essential part of communal life
* provide an example of masks representing a stylistic extreme
* identify one of the uses of masks
* provide an example of masks characterized by abstract symbolism

Paragraph 5

Masks (see figure above) are the most varied of the carvings from the Northwest, where they were an essential part of communal life. In style they range from an almost abstract symbolism to combinations of human and animal features and to a lifelike naturalism sometimes bordering on caricature (a style that strongly exaggerates features or characteristics), taken to its extreme in Tlingit war helmets. Some differences must have been due to those among the cultures in which they were created, but their place of origin cannot always be ascertained as they seem to have passed from one contiguous nation to another in the course of trade or warfare. Although carvers worked according to established conventions, no two masks are identical and those with basic similarities reveal varying degrees of skill.

10. 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.

* Some characteristics of masks must be due to cultural and national factors, such as whether they were made during a period of warfare or of peace and trade.
* As one contiguous nation exchanged masks with another during trade or warfare, it became more difficult to determine he place of origin of masks.
* Some differences among masks were probably due to their different origins, but because they passed from one nation to another, their origin cannot always be determined.
* As masks of different cultural origins passed from one nation to anther during trade or warfare, they acquired certain differences depending on how they were used.

Paragraph 6

The major differences between masks were determined by their purpose. Some were representations of chiefs and their ancestors and made to be displayed and treasured as heirlooms. Although they appear to record the styles of facial tattooing customary in different groups, it is difficult to say how far they were intended to be portraits rather than generalized images. Many masks, sometimes quite large, were carved to be worn in dance-dramas that re-enacted and kept alive the cohesive myths of a culture. Often, Tlingit masks were made for religious leaders and incorporated the animals that were believed to be their spirit helpers. Conjuring up forces of nature from the ocean, the forests, or the sky, they mediated between life on Earth and the inscrutable powers around and above.

11. What can be inferred from paragraph 6 about masks representing chiefs and their ancestors?

* They were made to be exhibited and appreciated rather than used.
* They include scenes depicting the heroic achievements of chiefs and their ancestors.
* They were made from different materials than were other types of masks.
* They were sometimes worn by non-family members during religious rituals.

12. Paragraph 6 mentions all of the following as purposes of masks EXCEPT:

* They were made to be worn in dance-dramas.
* They were used as models for tattoo artists to copy.
* They were made for religious leaders and showed their animal spirit helpers.
* They were valued family possessions representing chiefs and their ancestors.

Paragraph 5

■ Masks (see figure above) are the most varied of the carvings from the Northwest, where they were an essential part of communal life. ■ In style they range from an almost abstract symbolism to combinations of human and animal features and to a lifelike naturalism sometimes bordering on caricature (a style that strongly exaggerates features or characteristics), taken to its extreme in Tlingit war helmets. Some differences must have been due to those among the cultures in which they were created, but their place of origin cannot always be ascertained as they seem to have passed from one contiguous nation to another in the course of trade or warfare. ■ Although carvers worked according to established conventions, no two masks are identical and those with basic similarities reveal varying degrees of skill. ■

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

If we consider 100 raven masks made by different carvers, for example, some will have been well executed, others less so, and one may have been made by an exceptional carver.

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

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Drag your choices to the spaces where they belong. To review the passage, click on View Text.

The peoples who lived along the northwestern coast of North America had stable communities and a distinctive artistic style.

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Answer Choices

A. The people lived on food from the sea, animals, and wild plants, and used wood from the forests for building construction, boat making, and sculpture.

B. In the absence of a central political or religious organization, wide kinship networks established through interclan marriage helped to maintain social cohesion.

C. Totem poles had a chief’s symbols of identity imposed on them, and were thus used as objects of worship, whereas masks were used for secular purposes.

D. Although the peoples of the northwestern communities came from various language groups, their languages were closely related and they could generally understand one another.

E. The most remarkable artistic products of the northwestern peoples were totem poles and masks, which often represented families and their spirit guides.

F. Carvers made masks using a principle of bilateral symmetry that resulted in the creation of a unity of symbolism, form, and surface.

三篇答案

Colonial America and the Navigation Acts答案：BBBD(AC), DBBAC, DCD, 246

Mass Production: Method and Impact答案：CCADB, BCDBB, DAA, 346

Art and Culture of Pacific Northwest Communities答案：DBDBC, AACBC, ABD, 125

第23套

Memphis: United Egypt’s First Capital

The city of Memphis, located on the Nile near the modern city of Cairo, was founded around 3100 B . C . as the first capital of a recently united Egypt. The choice of Memphis by Egypt’s first kings reflects the site’s strategic importance. First, and most obvious, the apex of the Nile River delta was a politically opportune location for the state’s administrative center, standing between the united lands of Upper and Lower Egypt and offering ready access to both parts of the country. The older predynastic (pre-3100BC) centers of power, This and Hierakonpolis, were too remote from the vast expanse of the delta, which had been incorporated into the unified state. Only a city within easy reach of both the Nile valley to the south and the more spread out, difficult terrain to the north could provide the necessary political control that the rulers of early dynastic Egypt (roughly 3000­2600 B . C . ) required.

1. The word vast in the passage is closest in meaning to

A. fertile

B. huge

C. unique

D. Irregular

1. According to paragraph 1, why was Memphis a better choice for the capital of a united Egypt than either This or Hierakonpolis

A. Memphis was in a better location for maintaining administrative control.

B. Memphis had long been a regional administrative center by the time Egypt was united.

C. This and Hierakonpolis had never actually been incorporated into the unified state.

D. Egyptian rulers had failed to keep political control over This and Hierakonpolis in predynastic times.

3. Which of the following best describes how paragraph 1 is organized

A. Two simultaneous developments are described, as well as the reasons why neither one would have occurred without the other.

B. A hypothesis is presented, and then points in favor of that hypothesis as well as points against it are discussed.

C. A major event is described, and then the most obvious effects of that event are presented.

D. A decision is described, and then one likely motivation for that decision is presented.

1. It can be inferred from paragraph 1 that one consequence of the unification of Egypt was
2. the reduction of the strategic importance of older centers of power
3. the opportunity for the recently united Egypt to become economically self-sufficient
4. the increase in political tensions between the rulers of Upper and Lower Egypt
5. the reduction of Egypt's dependence upon the Nile for trade and communications

The region of Memphis must have also served as an important node for transport and communications, even before the unification of Egypt. The region probably acted as a conduit for much, if not all, of the river-based trade between northern and southern Egypt. Moreover, commodities (such as wine, precious oils, and metals) imported from the Near East by the royal courts of predynastic Upper Egypt would have been channeled through the Memphis region on their way south. 【In short, therefore, the site of Memphis offered the rulers of the Early Dynastic Period an ideal location for controlling internal trade within their realm, an essential requirement for a state-directed economy that depended on the movement of goods.】

5. According to paragraph 2, when did Egypt import goods from the Near East

A. Once internal trade was fully controlled from Memphis

B. Not until early dynastic Egypt established its state-directed economy

C. As early as predynastic times

D. Only when local supplies of those goods had been completely used up

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

【In short, therefore, the site of Memphis offered the rulers of the Early Dynastic Period an ideal location for controlling internal trade within their realm, an essential requirement for a state-directed economy that depended on the movement of goods.】

A. Thus in Memphis, the rulers of the Early Dynastic Period were ideally placed to control internal trade, which they had to do in order to run their economy.

B. Therefore the rulers of the Early Dynastic Period thought Memphis was the ideal location for trade with nearby countries.

C. In short, a state-directed economy like that of the Early Dynastic Period requires choosing a single location to which goods can be movedjaMemphis, in this case.

D. In sum, then, a state-directed economy first developed during Egypt's Early Dynastic Period because Memphis was an ideal location for controlling trade.

Equally important for the national administration was the ability to control communications within Egypt. The Nile provided the easiest and quickest artery of communication, and the national capital was, again, ideally located in this respect. Recent geological surveys of the Memphis region have revealed much about its topography in ancient times. It appears that the location of Memphis may have been even more advantageous for controlling trade, transport, and communications than was previously appreciated. Surveys and drill cores have shown that the level of the Nile floodplain has steadily risen over the last five millenniums. When the floodplain was much lower, as it would have been in predynastic and early dynastic times, the outwash fans (fan-shaped deposits of sediments) of various wadis (stream-beds or channels that carry water only during rainy periods) would have been much more prominent features on the east bank. The fan associated with the Wadi Hof extended a significant way into the Nile floodplain, forming a constriction in the vicinity of Memphis. The valley may have narrowed at this point to a mere three kilometers, making it the ideal place for controlling river traffic.

7. The word appreciated in the passage is closest in meaning to

A. proposed

B. understood

C. approved

D. Expected

8. The word vicinity in the passage is closest in meaning to

A. center

B. fields

C. city

D. surrounding area

9. According to paragraph 3, recent research into the topography of the Memphis region in ancient times suggests which of the following

A. The level of the Nile floodplains was much higher in predynastic and dynastic times than in later times.

B. The sediment deposits of wadis were not as noticeable in predynastic and dynastic times than in later times.

C. The Nile valley at the point of Memphis was narrower in predynastic and dynastic times than it was in later times.

D. Frequent rainy periods may have caused a significant reduction of trade traffic during the predynastic and dynastic times.

Furthermore, the Memphis region seems to have been favorably located for the control not only of river-based trade but also of desert trade routes. The two outwash fans in the area gave access to the extensive wadi systems of the eastern desert. In predynastic times, the Wadi Digla may have served as a trade route between the Memphis region and the Near East, to judge from the unusual concentration of foreign artifacts found in the predynastic settlement of Maadi. Access to, and control of, trade routes between Egypt and the Near East seems to have been a preoccupation of Egypt’s rulers during the period of state formation. The desire to monopolize foreign trade may have been one of the primary factors behind the political unification of Egypt. The foundation of the national capital at the junction of an important trade route with the Nile valley is not likely to have been accidental. Moreover, the Wadis Hof and Digla provided the Memphis region with accessible desert pasturage. As was the case with the cities of Hierakonpolis and Elkab, the combination within the same area of both desert pasturage and alluvial arable land (land suitable for growing crops) was a particularly attractive one for early settlement; this combination no doubt contributed to the prosperity of the Memphis region from early predynastic times.

10. According to paragraph 4, which of the following is NOT a reason Memphis was chosen as the capital of a united Egypt

A. It was at the junction of a major trade route with the Nile valley.

B. It was near land that could be used for animal grazing and for growing crops.

C. The nearby outwash fans led into wadis that could be used as desert trade routes.

D.Since foreign traders had settled in nearby Maadi, trade between the two cities could be established.

11. The phrase to have been accidental in the passage is closest in meaning to

A. to have gone wrong

B, to have been helpful

C. to have occurred by chance

D. to have made a difference

12. In paragraph 4, why does the author mention the cities of Hierakonpolis and Elkab

A. To give an indication of the level of prosperity that Memphis is thought to have enjoyed from its earliest days

B, To compare the Memphis region to them in terms of their similar combinations of characteristics providing advantages for early settlement

C. To identify the models that the founders of Memphis followed in laying out the national capital

D. To suggest that the combination of desert pasturage and alluvial arable land in the same area was very common

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

While considerations of political power and ease of administration were decisive in choosing the location of the new capital, the site clearly had other advantages.

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

Paragraph 2:

【A】The region of Memphis must have also served as an important node for transport and communications, even before the unification of Egypt. 【B】The region probably acted as a conduit for much, if not all, of the river-based trade between northern and southern Egypt. 【C】Moreover, commodities (such as wine, precious oils, and metals) imported from the Near East by the royal courts of predynastic Upper Egypt would have been channeled through the Memphis region on their way south.【D】 In short, therefore, the site of Memphis offered the rulers of the Early Dynastic Period an ideal location for controlling internal trade within their realm, an essential requirement for a state-directed economy that depended on the movement of goods.

14. Drag your choices to the spaces where they belong. To review the passage, click on View Text. Answer Choices

A. River-based trade from northern Egypt and imported goods going south all passed through the Memphis region, making Memphis an ideal location for controlling trade.

B. After Memphis became the capital city, river-based trade along the Nile gained in importance, while land-based desert trade declined in importance.

C. Recent geological surveys suggest that the topographical features of the Memphis region made it particularly well-suited for controlling communications and trade.

D. The Nile, despite a constriction of its valley near Memphis, was the most advantageous route for communication and travel once the floodplain had begun to rise.

E. The rulers of unified Egypt enjoyed a monopoly over foreign trade because all such trade was required to go through the Wadi Digla, to which the rulers controlled all access.

F. While the location of Memphis was agriculturally favorable, it was particularly attractive because it enabled Egypt's rulers to control trade moving through the desert from the Near East.

Surface Fluids on Venus and Earth

A fluid is a substance, such as a liquid or gas, in which the component particles (usually molecules) can move past one another. Fluids flow easily and conform to the shape of their containers. The geologic processes related to the movement of fluids on a planet’s surface can completely resurface a planet many times. These processes derive their energy from the Sun and the gravitational forces of the planet itself. As these fluids interact with surface materials, they move particles about or react chemically with them to modify or produce materials. On a solid planet with a rocky core and an atmosphere, only a tiny fraction of the planetary mass flows as surface fluids. Yet the movements of these fluids can drastically alter a planet. Consider Venus and Earth, both terrestrial planets with atmospheres.

1. The word modify in the passage is closest in meaning to

A. obtain

B. change

C. replace

D. absorb

2. The word drastically in the passage is closest in meaning to

A. gradually

B. permanently

C. extensively

D. Possibly

3. Paragraph 1 supports all of the following statements about fluids EXCEPT:

A. They can chemically react with particles on a planet's surface.

B. Most of their mass does not flow but remains in place.

C. Their movement can reshape the surface of certain kinds of planets.

D. Their movement is driven by the Sun and by gravity.

Venus and Earth are commonly regarded as twin planets but not identical twins. They are about the same size, are composed of roughly the same mix of materials, and may have been comparably endowed at their beginning with carbon dioxide and water. However, the twins evolved differently, largely because of differences in their distance from the Sun. With a significant amount of internal heat, Venus may continue to be geologically active with volcanoes, rifting, and folding. However, it lacks any sign of a hydrologic system (water circulation and distribution): there are no streams, lakes, oceans, or glaciers. Space probes suggest that Venus may have started with as much water as Earth, but it was unable to keep its water in liquid form. Because Venus receives more heat from the Sun, water released from the interior evaporated and rose to the upper atmosphere where the Sun’s ultraviolet rays broke the molecules apart. Much of the freed hydrogen escaped into space, and Venus lost its water. Without water, Venus became less and less like Earth and kept an atmosphere filled with carbon dioxide. The carbon dioxide acts as a blanket, creating an intense greenhouse effect and driving surface temperatures high enough to melt lead and to prohibit the formation of carbonate minerals. Volcanoes continually vented more carbon dioxide into the atmosphere. On Earth, liquid water removes carbon dioxide from the atmosphere and combines it with calcium, from rock weathering, to form carbonate sedimentary rocks. Without liquid water to remove carbon from the atmosphere, the level of carbon dioxide in the atmosphere of Venus remains high.

4. The word prohibit in the passage is closest in meaning to

A. prevent

B. speed up

C. affect

D. Encourage

5. According to paragraph 2, what is one difference between Earth and Venus

A. Earth has less water in its atmosphere than Venus does.

B. Earth has a hydrologic system, but Venus does not.

C. Earth is less geologically active than Venus is.

D. Earth has more carbon dioxide than Venus does.

6. It can be inferred from paragraph 2 that Earth evolved differently than Venus did in part because

A. there was more volcanic activity on early Venus than on early Earth

B. they received different amounts of solar energy

C. their interiors contained different amounts of heat

D. their early atmospheres contained different levels of oxygen and nitrogen

7. According to paragraph 2, all of the following played a role in keeping carbon dioxide levels high in the atmosphere of Venus EXCEPT

A. the breaking apart of water molecules by ultraviolet rays

B. the evaporation of water released from the planet's interior

C. the escape of hydrogen into space

D. the release of molecules from melting metals such as lead

Like Venus, Earth is large enough to be geologically active and for its gravitational field to hold an atmosphere. Unlike Venus, it is just the right distance from the Sun so that temperature ranges allow water to exist as a liquid, a solid, and a gas. Water is thus extremely mobile and moves rapidly over the planet in a continuous hydrologic cycle. Heated by the Sun, the water moves in great cycles from the oceans to the atmosphere, over the landscape in river systems, and ultimately back to the oceans. As a result, Earth’s surface has been continually changed and eroded into delicate systems of river valleys—a remarkable contrast to the surfaces of other planetary bodies where impact craters dominate. Few areas on Earth have been untouched by flowing water. As a result, river valleys are the dominant feature of its landscape. Similarly, wind action has scoured fine particles away from large areas, depositing them elsewhere as vast sand seas dominated by dunes or in sheets of loess (fine-grained soil deposits). These fluid movements are caused by gravity flow systems energized by heat from the Sun. Other geologic changes occur when the gases in the atmosphere or water react with rocks at the surface to form new chemical compounds with different properties. An important example of this process was the removal of most of Earth’s carbon dioxide from its atmosphere to form carbonate rocks. However, if Earth were a little closer to the Sun, its oceans would evaporate; if it were farther from the Sun, the oceans would freeze solid. 【Because liquid water was present, self-replicating molecules of carbon, hydrogen, and oxygen developed life early in Earth’s history and have radically modified its surface, blanketing huge parts of the continents with greenery.】 Life thrives on this planet, and it helped create the planet’s oxygen- and nitrogen-rich atmosphere and moderate temperatures.

8. The word ultimately in the passage is closest in meaning

A. finally

B. slowly

C. repeatedly

D. Constantly

9. According to paragraph 3, why is water able to move so freely on Earth

A. Earth's temperatures are such that water exists in solid, liquid, and gas forms.

B. Earth is large enough to be geologically active and for its gravitational field to hold an atmosphere. C. Earth's surface allows river valleys to develop across the landscape.

D. Earth has active winds that blow across seas and oceans, causing fluid movements.

10. Why does the author point out that on Earth gases in the atmosphere or water react with rocks at the surface to form new chemical compounds

A. To explain why scientists believe that few areas on Earth have been untouched by flowing water B. To identify one of several ways in which the movement of fluids can affect the surface of a planet

C. To provide evidence that fluid movements are caused by gravity flow systems energized by the Sun

D. To identify an effect of wind scouring fine particles away from large areas

1. 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.

【Because liquid water was present, self-replicating molecules of carbon, hydrogen, and oxygen developed life early in Earth’s history and have radically modified its surface, blanketing huge parts of the continents with greenery.】

A. Life on Earth is responsible for many changes to the planet's surface, including blankets of greenery.

B. Self-replicating molecules of carbon, hydrogen, and oxygen led to the development of life early in Earth's history.

C.The presence of water made it possible for life to develop early in Earth's history and to significantly change its surface.

D. Early in life's history on Earth, self-replicating molecules of carbon, hydrogen, and oxygen began blanketing the surface in greenery.

12. According to paragraph 3, Earth's surface is different from the surfaces of many other planetary bodies in which of the following ways

A. It is more strongly marked by river valleys and erosion.

B. It is more geologically active.

C.It is covered by impact craters.

D. It has an atmosphere.

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

Venus may not have always been this way.

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

Paragraph 2:

......Without water, Venus became less and less like Earth and kept an atmosphere filled with carbon dioxide. The carbon dioxide acts as a blanket, creating an intense greenhouse effect and driving surface temperatures high enough to melt lead and to prohibit the formation of carbonate minerals. 【A】Volcanoes continually vented more carbon dioxide into the atmosphere. 【B】On Earth, liquid water removes carbon dioxide from the atmosphere and combines it with calcium, from rock weathering, to form carbonate sedimentary rocks. 【C】Without liquid water to remove carbon from the atmosphere, the level of carbon dioxide in the atmosphere of Venus remains high.【D】

14. Drag your choices to the spaces where they belong. To review the passage, click on View Text. Answer Choices

A. Although Venus is about the same size as Earth, its greater volcanic activity has added considerably to carbon dioxide levels in its atmosphere.

B. Because Venus lost the water it originally had, most of its carbon dioxide remained in its atmosphere, causing the planet to become very warm.

C. Like Venus, Earth has an atmosphere, but Earth's atmosphere has far more oxygen and nitrogen than does the atmosphere of Venus.

D. On Earth, the dominance of river valley landscapes and the existence of life are due to the planet's hydrologic cycle.

E. On Earth, chemical reactions involving fluids remove carbon dioxide from the atmosphere by giving rise to carbonate rocks, and winds energized by gravity flow systems move fine particles from one place to another.

F. The evaporation of liquid water from Earth's surface is largely limited by the life forms that have developed, particularly the vegetation.

Population Growth in Nineteenth-Century Europe

Paragraph 1

Because of industrialization, but also because of a vast increase in agricultural output without which industrialization would have been impossible, Western Europeans by the latter half of the nineteenth century enjoyed higher standards of living and longer, healthier lives than most of the world’s peoples. In Europe as a whole, the population rose from 188 million in 1800 to 400 million in 1900. By 1900, virtually every area of Europe had contributed to the tremendous surge of population, but each major region was at a different stage of demographic change.

1. According to paragraph 1, which of the following is true about Europe in the nineteenth century?

A. A large increase in food production led to industrialization.

B. Population changes occurred at the same pace in the major regions.

C. The standard of living rose to the level of that in most parts of the world.

D. The tremendous rise in population led to greater agricultural output in every region.

Paragraph 2

Improvements in the food supply continued trends that had started in the late seventeenth century. New lands were put under cultivation, while the use of crops of American origin, particularly the potato, continued to expand. Setbacks did occur. Regional agricultural failures were the most common cause of economic recessions until 1850, and they could lead to localized famine as well. A major potato blight (disease) in 1846-1847 led to the deaths of at least one million persons in Ireland and the emigration of another million, and Ireland never recovered the population levels the potato had sustained to that point. Bad grain harvests at the same time led to increased hardship throughout much of Europe.

2. According to paragraph 2, which of the following caused the food supply to increase in most of Western Europe during the nineteenth century?

A. Replacement of seventeenth-century farming techniques with more modern ones

B. Improved grain harvests in most European countries

C. Reduced demand for food as a result of a decreased population

D. Use of new land to grow crops

3. In paragraph 2, why does the author mention the potato blight that occurred in Ireland?

A. To identify a crop that was more successful in the United State than it was in Western Europe

B. To support a claim about regional agricultural failures

C. To give an example of a problematic trend that had started in the late seventeenth century

D. To provide evidence that many countries in Europe experienced a loss of population in the nineteenth century

Paragraph 3

After 1850, however, the expansion of foods more regularly kept pace with population growth, though the poorer classes remained malnourished. Two developments were crucial. First, the application of science and new technology to agriculture increased. Led by German universities, increasing research was devoted to improving seeds, developing chemical fertilizers, and advancing livestock. After 1861, with the development of land-grant universities in the United States that had huge agricultural programs,

American crop-production research added to this mix. Mechanization included the use of horse-drawn harvesters and seed drills, many developed initially in the United States. It also included mechanical cream separators and other food-processing devices that improved supply.

4. The phrase “kept pace with” in the passage is closest in meaning to

A. exceeded

B. matched the increase in

C. increased the rate of

D. caused

5. According to paragraph 3, all of the following factors helped the supply of food meet the needs of a growing population EXCEPT

A. increased agricultural research in Germany

B. introduction of new crops

C. development of food-processing devices

D. agricultural programs in universities in the United States

Paragraph 4

The second development involved industrially based transportation. With trains and steam shipping, it became possible to move foods to needy regions within Western Europe quickly. Famine (as opposed to malnutrition) became a thing of the past. Many Western European countries, headed by Britain, began also to import increasing amounts of food, not only from Eastern Europe, a traditional source, but also from the Americas, Australia, and New Zealand. Steam shipping, which improved speed and capacity, as well as new procedures for canning and refrigerating foods (particularly after 1870), was fundamental to these developments.

6. The word “capacity” in the passage is closest in meaning to

A. variety of goods

B. distance

C. reliability

D. available storage space

7. According to paragraph 4, famine became less of a problem in Western Europe during the nineteenth century because of

A. the decline of malnutrition

B. the construction of more food-storage facilities

C. faster means of transportation

D. improved agricultural methods in Eastern Europe

Paragraph 5

Europe’s population growth included on additional innovation by the nineteenth century: it combined with rapid urbanization. More and more Western Europeans moved from countryside to city, and big cities grew most rapidly of all. By 1850, over half of all the people in England lived in cities, a first in human history. In one sense, this pattern seems inevitable growing numbers of people pressed available resources on the land, even when farmwork was combined with a bit of manufacturing, so people crowded into cities seeking work or other resources. Traditionally, however, death rates in cities surpassed those in the countryside by a large margin, cities had maintained population only through steady in-migration. Thus rapid urbanization should have reduced overall population growth, but by the middle of the nineteenth century this was no longer the case. Urban death rates remained high, particularly in the lower-class slums, but they began to decline rapidly.

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

A. unexplainable

B. undesirable

C. unavoidable

D. unpredictable

9. According to paragraph 5, which of the following factors led to rapid urbanization in the first half of the nineteenth century?

A. The destruction of many farms due to bad harvests

B. The reduction in the amount of good-quality farmland

C. The rise in death rates in the countryside

D. The lack of jobs in the countryside

Paragraph 6

The greater reliability of food supplies was a factor in the decline of urban death rates. Even more important were the gains in urban sanitation, as well as measures such as inspection of housing. Reformers, including enlightened doctors, began to study the causes of high death rates and to urge remediation. Even before the discovery of germs, beliefs that disease spread by “miasmas” (noxious forms of bad air) prompted attention to sewers and open garbage. Edwin Chadwick led an exemplary urban crusade for underground sewers in England in the 1830s. Gradually, public health provisions began to cut into customary urban mortality rates. By 1900, in some parts of Western Europe life expectancy in the cities began to surpass that of the rural areas. Industrial societies had figured out ways to combine large and growing cities with population growth, a development that would soon spread to other parts of the world.

10. The word “ surpass” in the passage is closest in meaning to

A. exceed

B. influence

C. equal

D. differ from

11. Which of the following can be inferred from paragraph 6 about underground sewers?

A. They became common in most of Western Europe in the 1830s.

B. They helped reduce deaths caused by disease in cities.

C. They led to the discovery that disease could be caused by germs.

D. They encouraged people to leave rural areas and move to the cities.

12. Paragraph 6 mentions all of the following as factors that contributed the rapid decline of urban death rates EXCEPT

1. the greater reliability of food supplies
2. improvements in sanitation
3. advances in the treatment of disease
4. provisions for inspecting houses

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

Such individual efforts had substantial, concrete effects on society.

Where would the sentence best fit?

The greater reliability of food supplies was a factor in the decline of urban death rates. ■ Even more important were the gains in urban sanitation, as well as measures such as inspection of housing. ■ Reformers, including enlightened doctors, began to study the causes of high death rates and to urge remediation. Even before the discovery of germs, beliefs that disease spread by “miasmas”（noxious forms of bad air) prompted attention to sewers and open garbage. Edwin Chadwick led an exemplary urban crusade for underground sewers in England in the 1830s. ■ Gradually, public health provisions began to cut into customary urban mortality rates. ■ By 1900, in some parts of Western Europe life expectancy in the cities began to surpass that of the rural areas. Industrial societies had figured out ways to combine large and growing cities with population growth, a development that would soon spread to other parts of the world.

1. 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 the express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.

Western Europe experienced a tremendous growth in population in the nineteenth century.

A. Agricultural failures became less damaging after 1850 because of advances in science and technology as well as improvements in the transportation and preservation of foods.

B. The development of better food-processing technologies allowed many Western European countries to grow their own food without having to import it from other countries.

C. High death rates in the cities began to decline as food supplies became more reliable and as reformers prompted improvements in sanitation and housing.

D. Although agricultural failures led to deaths and emigration, population levels were restored within a short time.

E. As the population in the countryside began increasing faster than the supply of food and living space, people began moving to the cities in search of jobs and other resources.

F. The improvements in crop-growing methods created new jobs on the farms, causing people from the overcrowded cities to move to the countryside to find those jobs.

答案：

Memphis: United Egypt’s First Capital

答案：1-5. B A D A C; 6-10. A C D C D ; 11-14. C B A CEF

Surface Fluids on Venus and Earth

Surface Fluids on Venus and Earth答案：B C B A B; B D A A B; C A C BDE

## Population Growth in Nineteenth-Century Europe答案：

1. A 2. D 3. B 4. B 5. B 6. D 7. C 8. C 9. D 10. A 11.B 12. C 13. C 14. ACE

第24套

Greek Sacred Groves and Parks

Paragraph 1

In Greek and Roman civilization, parks were associated with spirituality, public recreation, and city living. Greek philosophers pondered the meaning of nature and its innermost workings, the relationships between animals and humankind, and how matter related to spirit. The philosophy of Aristotle (384—332 B.C.) advanced the fundamental notion of nature as the embodiment of everything outside culture, an essence opposed to art and artificiality. This sense of nature and culture as distinct opposites continues to govern ideas about the environment and society today. [Meanwhile, the suggestion of a state of nature, wholesome and pure, defined in opposition to

civilized life, found acceptance in Aristotle’s time through the concept of the Golden Age –a legendary ideal that had significance for landscape planning and artistic experiment.] Described by Greek poets and playwrights, the Golden Age of perpetual spring depicted an era before the adoption of agriculture, when humans embraced nature’s wonder and communicated with

spirits in sacred woods. In The Odyssey (800 B.C.), Homer, the great Greek writer, described a garden that was a place of constant productivity, where “fruit never fails nor runs short, winter and summer alike.”

1. The word “ pondered ” in the passage is the closest in meaning to

A. explained

B. argued over

C. thought about

D. understood

2. The word “ fundamental ” in the passage is the closest in meaning to

A. famous

B. basic

C. revolutionary

D. original

3. 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. Aristotle used the concept of the Golden Age to explain how the pure beauty of nature could be recreated in a new, carefully planned state.

B. During the Golden Age of Aristotle’s time, human activities such as landscape planning and art reached the height of creativity.

C. In ancient Greek thought, both art and nature were characterized by purity and wholesomeness within a Golden Age.

D. During Aristotle’s time, the idea that nature is pure and distinct from civilization was expressed in the idea of the perfect Golden Age, which influenced both art and landscape design.

4. In paragraph 1, why does the author include the quotation from The Odyssey?

A. To support the idea that modern ideas about nature have not changed much since the ancient Greeks

B. To contrast Homer’s ideas about nature with those of Aristotle

C. To argue that the adoption of agriculture advanced Greek culture

D. To give an example of an ancient Greek description of the Greek description of the Golden Age

Paragraph 2

Greek interest in spirituality and nature manifested itself in the tradition of the sacred grove. Usually comprised of a few trees, a spring, or a mountain crag, sacred groves became intensely mystical places by their associations with gods, spirits, or celebrated folk heroes. Twisted trees, sections of old-growth forest, and rocks or caves typically surrounded the naturalistic shrines and

altars. As the Roman official and writer Pliny the Elder (A.D. 23—79) put it, “Trees were the first temples of the gods, and even now simple country people dedicate a tree of exceptional height to a god with the ritual of olden times, and we… worship forests and the very silences they contain.”

5. In paragraph 2, the author quotes Pliny the Elder in order to support the claim that

A. only simply country people believed in gods who lived in forests

B. Greek beliefs about forests differed from Roman beliefs about forests

C. sacred groves had mystical meanings because of their association with gods

D. Greeks were more interested in nature than in spirituality

Paragraph 3

The Greeks were not alone in their spiritual veneration of nature. Examples of pantheism –the belief that God and the universe or nature are the same – and the worship of trees permeated many cultures. The nations of northern Europe utilized trees as places of worship. In Scandinavian mythology, the tree called Yggdrasil held up the world, its branches forming the heavens and its roots stretching into the underworld. A spring of knowledge bubbled at its base, and an eagle perched amid its sturdy branches. The Maori people of New Zealand celebrated a tree that separated the sky from the earth. For many ancient civilizations, trees signified life, permanence, and wisdom.

6. What is the purpose of paragraph 3 in the larger discussion of ancient Greek beliefs?

A. To connect the Greek view of nature to the associations between nature and religion that exist in many different cultures in the world

B. To contrast the history and development of Greek religion to the development of other religions of the time

C. To demonstrate the influences of Greek beliefs on other religions

D. To argue that ancient religions eventually rejected the spirituality of trees

Paragraph 4

In some spiritual traditions, landscapes such as gardens or deserts were treated as abstract emblems of spiritual states such as innocence or despair. Rather than symbolic landscapes, as in the Judeo-Christian tradition, Greek sacred groves operated as literal homes of the gods. Instead of being confined to prehistory or celestial space, spiritual parkscapes were present within the existing cultural terrain. One could not visit a symbol of peace and serenity, but one could experience these qualities in a sacred grove.

7. It can be inferred from paragraph 4 that the ancient Greeks believed that their gods

A. resided only in celestial space

B. actually lived on Earth

C. did not exist in prehistoric times

D. were only representations of ideas

Paragraph 5

The spiritual significance of the sacred grove mandated specific preservationist measures. Civil restrictions and environmental codes of practice governed the use of such spaces. Enclosing walls prevented sheep from desecrating sacred sites, while patrolling priests issued spiritual guidance along with fines for vandalism. Laws forbade hunting, fishing, or the cutting of trees. Those not dissuaded by monetary penalties were threatened with the anger of the resident gods.

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

A. contributed to

B. produced

C. limited

D. required

9. All of the following are mentioned in paragraph 5 as ways the Greeks protected their sacred groves EXCEPT

A. by building protective walls around the groves

B. by allowing only priests in sacred groves

C. by punishing those who cut trees, hunted or fished in the groves

D. by telling people that the gods could punish vandals of the groves

Paragraph 6

Such environmental care suggested to historian J. Donald Hughes that sacred groves represented “classical national parks.” By helping to insulate sacred groves from pressures of deforestation, erosion, and urbanization, Greek codes protected ecosystems from destruction. Sacred groves nonetheless represented imperfect parkscapes. Some encompassed relatively small areas such as a section of a hillside or a series of caves. Meanwhile, the fundamental purpose of the grove –the visitation of resident gods –sometimes promoted activities not entirely conducive to modern concepts of conservation. Animals were routinely captured to serve as sacrifices to the gods. Many groves witnessed horticultural and architectural improvements. Flowers were planted, trails cut, and statues, fountains, and caves installed for the benefit of visitors. The grove served as a recreational center for Greek society, a realm of ritual, performance, feasting, and even chariot racing.

10. The word “ promoted ” in the passage is closest in meaning to

A. repeated

B. altered

C. encouraged

D. performed

11. Why are the sacred groves of the ancient Greeks referred to as “imperfect parkscapes” in the passage?

A. The Greeks protected their sacred groves from deforestation and erosion but allowed people to build houses on the grounds.

B. The ancient Greeks often changed the environment of the groves by adding plants, building shrines, and capturing animals for sacrifice.

C. The Greeks allowed only religious ceremonies in the groves.

D. The ancient Greeks had strict size limits on how big a sacred area could be.

12. Which of the following is NOT mentioned in paragraph 6 as a change made to the landscapes of sacred groves?

A. The introduction of new animals to the area

B. The construction of statues and fountains

C. The planting of flowers

D. The creation of trails

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

This, however, was not the Greek attitude.

Where would the sentence best fit?

In some spiritual traditions, landscapes such as gardens or deserts were treated as abstract emblems of spiritual states such as innocence or despair. 【】Rather than symbolic landscapes, as in the Judeo-Christian tradition, Greek sacred groves operated as literal homes of the gods.【】 Instead of being confined to prehistory or celestial space, spiritual parkscapes were present within the existing cultural terrain.【】 One could not visit a symbol of peace and serenity, but one could experience these qualities in a sacred grove.【】

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

Ancient Greeks and Romans thought of parks and natural spaces as spiritual and recreational sites.

Answer Choices

A. Sacred groves consisting or trees, springs, or mountains were organized as shrines to Greek gods.

B. The belief in a divine presence in all natural things originated with the ancient Greeks and spread to other cultures around the world.

C. In cultures where the climate made cultivation of sacred groves impossible, trees retained only a symbolic value in mythical stories.

D. Because of their association with ancient Greek gods, spirits and heroes, there are still many sections of forest in modern Greece.

E. Trees have played significant roles in the religious practices and beliefs of Greeks and numerous other cultures.

F. Because groves were spiritually important to ancient Greeks, they were often protected from damage and were the sites of various communal activities.

The Chaco Phenomenon(2016年11月考过)

A truly remarkable transformation in settlement patterns occurred in the San Juan basin in northwestern New Mexico in the late tenth and early eleventh centuries, with small household farmsteads giving way to aggregated communities centered on communal masonry buildings that are now called “great houses.” These structures are found throughout the basin but are concentrated in Chaco Canyon, where several examples contained hundreds of rooms and reached four stories in height. The largest great house is Pueblo Bonito, with over 600 rooms covering two acres. The entire episode of great house construction in Chaco, the Bonito phase (A.D. 900-1140), was obviously a time of immense cooperative effort. At least 200,000 wooden beams averaging 5 meters long and 20 centimeters in diameter were brought to the canyon from distances between 40 and 100 kilometers away to build a dozen great houses, signifying a huge labor investment and a complex production process. The bulk of construction took place in the eleventh century, but by A.D. 1140 it had ceased abruptly, after which there was a rapid decline in use of the great houses and apparent abandonment of the canyon in the thirteenth century.

1.The word “signifying” in the passage is closet in meaning to

A. creating

B. indicating

C. initiating

D. requiring

2.The word “ceased” in the passage is closet in meaning to

A. slow down

B. accelerated

C. stopped

D. changed in style

3.According to paragraph 1, all of the following provide evidence that the Bonito phase was a time of immense cooperative effort EXCEPT

A. the large amounts of material needed

B. the size of the Pueblo Bonito complex

C. the unusual materials used in construction

D. the distance the materials needed to be transported

For more than a century archaeologists have struggled to understand the circumstances surrounding the rise and collapse of Chacoan society—dubbed the Chaco Phenomenon. In particular, research has focused on determining why such an apparently inhospitable place as Chaco, which today is extremely arid and has very short growing seasons, should have favored the concentration of labor that must have been required for such massive construction projects over brief periods of time. Until the 1970s, it was widely assumed that Chaco had been a forested oasis that attracted farmers who initially flourished but eventually fell victim to their own success and exuberance, as they denuded the canyon of trees and vegetation to build large great houses. In the 1980s this reconstruction was largely dismissed in response to evidence that there had never been a forest in Chaco, and that canyon soils had poor agricultural potential. As scientific interpretations about Chaco changed, the focus of explanatory models changed from the attractiveness of the canyon for farmers to the position of the canyon within a regional network of dispersed agricultural communities.

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.

【In particular, research has focused on determining why such an apparently inhospitable place as Chaco, which today is extremely arid and has very short growing seasons, should have favored the concentration of labor that must have been required for such massive construction projects over brief periods of time.】

A. Researchers have tried to establish why an area as dry as Chaco was the site of such large construction efforts.

B. Researchers have tried to establish whether the concentration of massive construction projects in a brief period of time made Chaco the dry area that it is today.

C. Researchers have established that Chaco’s brief growing season required a concentration of labor to produce large quantities of food in a short period of time.

D. Researchers have established that the hot, dry climate of Chaco forced workers to complete construction on large buildings in short periods of time.

5.According to paragraph 2, before 1970, scholars believed that Chacoan society collapsed because

A. Chaco never had the forests that were needed for the development of a stable agricultural economy.

B. farmers used up the natural resources in Chaco that had originally allowed the society to succeed.

C. Chaco suffered a long-term drought that prevented farmers from growing enough food.

D. laborers left Chaco to find other work after they finished building the great houses there.

6. It can be inferred from paragraph 2 that the pre-1970s theory about the Chaco Phenomenon

A. was based on the widespread farm and tool remains found by archaeologists on the site.

B. was largely reinforced by findings in the 1980s.

C. was not supported by substantial evidence.

D. was so strong that it went unchallenged for many decades.

7. The word “dispersed” in the passage is closet in meaning to

A. connected

B. scattered

C. stable

D. developed

8.According to paragraph 2, why did scientists change their view about the cause of the collapse of Chacoan society?

A. They found evidence that Chaco had always lacked trees and good soil.

B. They discovered that Chaco Canyon was much drier than they had previously believed.

C. They learned that the population was not large enough to supply the laborers needed to build

the great houses.

D. They found evidence that the farming economy was excessively concentrated in the central

canyon.

The adoption of a regional perspective in explaining the Chaco Phenomenon was based in part on the discovery of formal trails connecting many of the great houses in Chaco, as well as linking the canyon to smaller great houses located throughout the San Juan basin, the latter are referred to as Chaco “outliers.” These trails are densest around the concentration of great houses in the center, and the canyon itself is roughly at the center of the basin. Consequently, the canyon occupies the geographical and social center of the network formed by the connecting trails. The current consensus view is that religion provides the fundamental explanation for this centrifugal pattern.

Archaeologists now describe Chaco during the Bonito phase as a location of high devotional expression and the pilgrimage center of a sacred landscape. These descriptions emphasize aspects of the archaeological record presumed to be associated with ritual activity, including caches of turquoise beads and pendants, unusual ceramic vessels and wooden objects, several rooms with multiple human burials, and especially the large number of kivas (multipurpose rooms used for religious, political, and social functions) found in great houses. Most of these indicators occur only at Pueblo Bonito, but archaeologists generally assume that all the great houses had a similar ritual function. In fact, some scholars have suggested that the great houses were temples rather than residences.

9.According to paragraphs 3 and 4, which of the following best describes how archaeologists arrived at their current view of the nature of Chaco during the Bonito phase?

A. They discovered a large number of kivas, which probably served as temporary houses for pilgrims on their way to the main temple.

B. They found a series of paths leading to the outliers, which seem to have been centers of trade for makers of jewelry and other products.

C. They found turquoise beads and pendants and other valuable objects, leading to the theory that the great houses were wealthy residences.

D. They discovered many objects and rooms associated with ritual activity, leading to the theory that Chaco was a religious center.

10.The word “function” in the passage is closet in meaning to

A. center

B. practice

C. design

D. purpose

However, new geological field studies in Chaco have produced results that may require a significant reassessment of the assumption that the canyon was not a favorable agricultural setting. It appears that during the first half of the eleventh century, during the extraordinary boom in construction, a large volume of water and suspended sediment flowed into the canyon. A large natural lake may have existed at the western end of Chaco, near the biggest concentration of great houses. The presence of large quantities of water and, equally important, a source of sediment that replenished agricultural fields, presumably made the canyon an extremely attractive place for newly arriving people from the northern San Juan River basin.

11.According to paragraph 5, what is the possible significance of new geological field studies in Chaco?

A. They indicate that during the construction boom the Chaco area probably did have enough water and sediment to attract farmers to that area.

B. They could undermine the theory of Chaco as a religious center.

C. They show the presence of excessive amounts of water, which may have led to the departure of most of the people living there during the Bonito phase.

D. They suggest that the kind of sediment present in Chaco in the eleventh century was not favorable for agriculture.

12.Why does the author state that “A large natural lake may have existed at the western end of Chaco, near the biggest concentration of great houses?”

A. To suggest that geological studies are better than archaeological studies in identifying the historical uses of land

B. To demonstrate that large construction projects require a large population of workers

C. To support the idea that Chaco may have been favorable to agriculture during the Bonito phase

D. To show that the Chacoan people preferred to build their homes near water

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

Scholars have attempted to find a reason for this weblike arrangement of great houses around a central canyon.

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

【A】The adoption of a regional perspective in explaining the Chaco Phenomenon was based in part on the discovery of formal trails connecting many of the great houses in Chaco, as well as linking the canyon to smaller great houses located throughout the San Juan basin, the latter are referred to as Chaco “outliers.” 【B】These trails are densest around the concentration of great houses in the center, and the canyon itself is roughly at the center of the basin. 【C】Consequently, the canyon occupies the geographical and social center of the network formed by the connecting trails.【D】The current consensus view is that religion provides the fundamental explanation for this centrifugal pattern.

14.Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

The population of the Chaco Canyon in New Mexico changed significantly between the tenth and eleventh centuries, as evidenced by the remains of its great houses.

Answer Choices：

A. Before the 1970s, scholars believed that the fail of Chacoan society was caused by farmers’ cutting down all the trees to build their great houses.

B. After discovering trails connecting Chaco to surrounding communities, scholars came to believe that there were many forested oases to support those communities.

C. Archaeological evidence has led current scholars to believe that Chaco was a religious center during the Bonito phase.

D. Archaeological findings indicate that Chaco Canyon was completely abandoned by the end of the thirteenth century.

E. Researchers’ findings in the 1980s revealed that Chaco Canyon had been a fertile agricultural area that caused the population near the center of the canyon to increase steadily during the Bonito phase.

F. Recent geological studies indicating the presence of water in Chaco Canyon in the eleventh century may alter scholars’ belief that the area was not favorable for farming.

Dinosaurs and Parental Care

From fossil evidence alone the question of whether or not dinosaurs cared for their young is very difficult to answer. Because behaviors are not preserved in the fossil record, we can only make inferences from indirect evidence. Parental care can be divided into two types of behavior: prehatching (building nests and incubating eggs—for example, sitting on top of them so as to warm the eggs and encourage hatching) and posthatching (feeding the young and guarding the nests). Most of our evidence comes from alleged dinosaur rookeries (places where nests are built). Several have been excavated in eastern Montana, where a large concentration of dinosaur nests was found at a place now called Egg Mountain. Most of these probably belonged to the hadrosaur Maiasaura. Preserved in these nests are the bones of baby dinosaurs. The finds at Egg Mountain and other sites around the world document that dinosaurs laid their eggs in nests.

1.The word “alleged” in the passage is closet in meaning to

A. scattered

B. supposed

C. isolated

D. exposed

2.Paragraph 1 answers which of the following questions about parental care in dinosaurs?

A. Which type of parental care was more important for the survival of dinosaur young, prehatching care or posthatching care?

B. Why were dinosaur remains in eastern Montana preserved rather than destroyed over time?

C. Did Maiasaura hadrosaurs provide types of parental care not provided by other dinosaurs?

D. What evidence supports the view that Maiasaura females laid their eggs in nests?

The nests at Egg Mountain are reported to be equally spaced, separated by a space corresponding to the length of an adult Maiasaura. From this arrangement scientists have inferred that the nests were separated in this way to allow incubation in a tightly packed nesting colony. Although this interpretation is open to challenge, the discovery of Oviraplor adults on top of Oviraplor egg clutches (as determined by embryos in some eggs), is relatively powerful evidence that at least these dinosaurs incubated their nests.

3.According to paragraphs 1 and 2, the fossil record most clearly shows that dinosaurs engaged in which of the following behaviors?

A. Laying eggs in nests

B. Hiding eggs

C. Feeding young

D. Storing food

4.According to paragraph 2, which of the following supports the theory that the Maiasaura incubated their eggs?

A. The examination of embryos found in some eggs

B. The large concentration of nests in one location

C. The amount of space between nests

D. The discovery of adult Maiasaura bones on top of egg clutches

Evidence for parental care following hatching is much more controversial. Behavioral speculation based on indirect fossil evidence is dangerous because the data is not always as unambiguous as might appear. At Egg Mountain, many nests contain baby dinosaur bones. Not all the dinosaurs in the nest are the same size. Many of the small bones found in the nests are associated with jaws and teeth, teeth that show signs of wear. It seems reasonable to assume that the wear was caused by the chewing of the coarse plants that were the hatchlings’ diet. Because the young were still in the nest, this food may have been brought to the rookery by foraging adults. This line of reasoning suggests that these animals had an advanced system of parental care. A closer look at the evidence clouds this interpretation. Analysis of dinosaur embryos indicates that worn surfaces are present on the teeth of juveniles even before hatching. Just as a human baby moves inside the mother before birth, modern-day archosaurs also grind their teeth before birth, wearing the surface in some spots. Thus, the fossil evidence for an advanced parental care system in extinct dinosaurs is suggestive but inconclusive, and it is hard even to imagine the sort of paleontologic discovery that could settle this debate for good.

5.The word “controversial” in the passage is closet in meaning to

A. limited

B. convincing

C. relevant

D. debatable

6.The word “inconclusive” in the passage is closet in meaning to

A. not decisive

B. insignificant

C. not valid

D. misleading

7.According to paragraph 3, the patterns of wear found on the teeth of young dinosaurs may indicate which of the following?

A. Baby dinosaurs were eating food brought to them by their parents.

B. Early development of jaw and teeth varied according to a dinosaur’s size.

C. Dinosaurs went foraging for food at an early age.

D. Baby dinosaurs did not begin to eat solid food until after they left the nest.

8.In paragraph 3, why does the author mention that baby archosaurs ground their teeth inside the egg?

A. To support the claim that baby dinosaurs in the egg shared certain behaviors with human babies before birth

B. To contrast the behavior of bay archosaurs with that of other types of dinosaurs

C. To cast doubt on the claim that adult dinosaurs fed their hatchlings in the nest

D. To explain why the teeth of baby archosaurs were more worn than those of other juveniles

The strongest evidence that extinct dinosaurs had some form of advanced parental care system is based on an understanding of the phylogenetic relationships among dinosaurs and their closest living relatives. Living dinosaurs (birds), even primitive ones such as ostriches and kiwis, exhibit parental care, so some form of parental care can be inferred to have existed in the last common ancestor of all birds. Although unappreciated, crocodiles are reptiles that are also caring parents. They build nests, guard the nests, and in some cases dig their young out of the nest when they hear the chirping young ones hatching. The young even communicate with each other while still in the egg by high-frequency squeaks (as birds do). Some evidence suggests that this squeaking is a cue for the synchronization of the hatching. Since birds and crocodiles share a common ancestor, the simplest explanation for the characteristics they share (such as nest building and some form of parental care) is that they evolved only once—that these attributes were present in their common ancestor and passed on to its descendants. Because extinct dinosaurs also descended from that ancestor, the simplest and most general theory is that extinct dinosaurs also shared these characteristics, even though they cannot be directly observed, and we cannot be sure how elaborate their parental care was.

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.

【Since birds and crocodiles share a common ancestor, the simplest explanation for the characteristics they share (such as nest building and some form of parental care) is that they evolved only once—that these attributes were present in their common ancestor and passed on to its descendants. 】

A. The simplest explanation for the similarities between birds and crocodiles is that they evolved at the same time.

B. A common ancestor is probably the source of the shared traits of crocodiles and birds.

C. The originally similar traits of birds and crocodiles increased after evolving through a shared ancestor.

D. Only one shared pattern of behavior—that of nest building—was present in the common ancestor of birds and crocodiles.

10.The word “elaborate” in the passage is closet in meaning to

A. widespread

B. reliable

C. well developed

D. long lasting

11.Paragraph 4 answers all of the following questions about crocodiles EXCEPT:

A. What is the evidence that crocodiles are caring parents?

B. Why do crocodile parents communicate with the young inside their eggs?

C. What is a possible reason for the high-frequency sounds that crocodiles make inside their eggs?

D. How do crocodiles participate in the hatching process of their young?

12.In paragraph 4, the author discusses birds and crocodiles in order to

A. contrast patterns of parenting behavior in both living and extinct animals

B. provide evidence that sophisticated parental care behaviors evolved only relatively recently

C. demonstrate that parental care behaviors have continued to evolve since the time of the dinosaurs

D. support the theory that extinct dinosaurs probably inherited some kind of parental care system

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

Evidence of the former is easier to find than that of the latter.

From fossil evidence alone the question of whether or not dinosaurs cared for their young is very difficult to answer. 【A】Because behaviors are not preserved in the fossil record, we can only make inferences from indirect evidence.【B】Parental care can be divided into two types of behavior: prehatching (building nests and incubating eggs—for example, sitting on top of them so as to warm the eggs and encourage hatching) and posthatching (feeding the young and guarding the nests). 【C】Most of our evidence comes from alleged dinosaur rookeries (places where nests are built). 【D】Several have been excavated in eastern Montana, where a large concentration of dinosaur nests was found at a place now called Egg Mountain. Most of these probably belonged to the hadrosaur Maiasaura. Preserved in these nests are the bones of baby dinosaurs. The finds at Egg Mountain and other sites around the world document that dinosaurs laid their eggs in nests.

14.Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

Scientists must use indirect evidence to determine whether extinct dinosaurs cared for their young.

Answer Choices

A. Because baby dinosaur bones and eggs were very delicate, there are relatively few preserved as fossils, so little is known about dinosaur young.

B. Fossils from sites like Egg Mountain indicate that dinosaurs built nests, and perhaps that they incubated their eggs and fed their hatchlings.

C. Fossil evidence such as the spacing of nests may indicate advanced parental care but can have different interpretations.

D. Tightly packed Oviraplor rookeries indicate that dinosaurs may have tended to nest in large colonies in order to better protect both eggs and hatchlings.

E. Discovery of hadrosaur bones of different sizes in the same nest may indicate that, in some species, older siblings took care of younger ones.

F. The strongest evidence comes from extinct dinosaurs’ nearest living relatives, birds and crocodiles, who do engage in many forms of parental care.

Greek Sacred Groves and Parks

Greek Sacred Groves and Parks答案：C B D D C; A B D B C; B A A AEF

The Chaco Phenomenon

The Chaco Phenomenon：B C C A B; C B A D D; A C D 136

Dinosaurs and Parental Care

Dinosaurs and Parental Care：B D A D D; A A C B C; B D C 236

第25套

Effects of the Commercial Revolution

Paragraph 1

In the third and the second millennia B.C. long-distance trade supposedly had the character of an expedition. By the start of the last millennium B.C., however, a new approach to engaging in such trade emerged. Based on the principle of colonization, it was pioneered by the Phoenicians and Greeks, who established colonies along the Mediterranean Sea. The new approach to long-distance trade, known as the commercial revolution, led to changes in a number of political and economic patterns.

1. The word “pioneered” in the passage is closet in meaning to

* adopted
* described
* demonstrated
* introduced

Paragraph 2

For the first time, the planting of colonies in distant lands became possible. The Phoenician settlements in the central and western Mediterranean, such as Carthage, and the slightly later establishment of Greek colonies are early examples, while the settlement of south Arabians in Eritrea around the middle of the last millennium marks the subsequent spread of this sort of commercial consequence to the Horn of Africa. In the third or second millennia B. C., a state such as Egypt might colonize areas outside its heartland, such as Nubia. But this colonization comprised military outposts and ethnic settlements that were planted to hold the contiguous territories of a land empire, not distant localities far separated from the home country.

1. All of the following groups are mentioned in paragraph 2 as establishing distant trading outposts in the last millennium B. C. EXCEPT

* the Greeks
* the Egyptians
* the Phoenicians
* the south Arabians

1. The word “subsequent” in the passage is closet in meaning to

* initial
* anticipated
* later
* increasing

1. In paragraph 2, why does the author mention the colonization of Nubia by the Egyptians?

* To prove that colonization was first carried out by the military
* To indicate that Egypt was a major military power in the third and second millennia B. C.
* To illustrate how large the geographic area of colonization had become over several millennia
* To show that the purpose of colonization during the third and second millennia B. C. differed from that of the last millennium B. C.

1. The word “comprised” in the passage is closet in meaning to

* resulted in
* focused on
* was inspired by
* consisted of

Paragraph 3

The commercial revolution constructed the economic basis as well for a new kind of town or city, an urban center that above all serviced trade and was home to the crafts and occupational specializations that went along with commercial development. The urban locations of earlier times commonly drew trade simply because their populations had included a privileged elite of potential consumers. Such towns had arisen in the first place as political and religious centers of the society, they attracted population because power and influence resides there and access to position and wealth could be gained through service to the royal or priestly leadership.

1. According to paragraph 3, before the emergence of the commercial revolution, trade

* enabled craftspeople and occupational specialists to gain power and influence in society
* centered on the ruling elite and those groups closely associated with them
* was primarily conducted by people serving the royal and religious leadership
* was a major reason why urban centers were established

Paragraph 4

Wherever the effects of the commercial revolution penetrated over the last millennium B. C., kings and emperors increasingly lost their ability to treat trade as a royalty sponsored activity, intended to preserve the commodities of trade as the privileges of immemorial power and position. Instead, their policies shifted toward controlling geographical accessibility to the products of commerce and to ensuring security and other conditions that attracted and enhanced the movement of goods. No longer could kings rely on agriculturally supported and religiously based claims to an ability to protect their lands and people; now they also had to overtly support the material prosperity of their people compared to other societies. And rather than exerting a monopoly over prestige commodities, as had Egyptian kings of the third and second millennia, and redistributing such commodities in ways designed to reinforce the allegiance of their subjects and enhance the awesomeness of their position, rulers turned to the taxation of trade and to the creation and control of currency, more and more relying on duties and other revenues to support the apparatus of the state. It was no historical accident that the first metal coinage in the world began to be made in eighth-century Anatolia (modern Turkey) and that the use of coins rapidly spread with the expanding commercial revolution. The material bases and the legitimizations of state authority as we know them today had begun to take shape.

1. The word “enhanced” in the passage is closet in meaning to

* improved
* influenced
* protected
* necessitated

1. The word “reinforce” in the passage is closet in meaning to

* demand
* strengthen
* earn
* repay

1. According to paragraph 4, as the commercial revolution expanded, rulers focused on

* taxation and the development and control of money
* monopolizing prestige commodities
* distributing prestige commodities to ensure the allegiance of their subjects
* protecting their land to legitimize their authority

1. What can be inferred from paragraph 4 about Anatolia?

* Its merchants specialized in the trading of prestige commodities.
* It was the first place to use currency for the taxation of trade.
* It contained enormous supplies of metal compared with other states in the region.
* Trade remained a royally sponsored activity there long after the emergence of the commercial revolution.

Paragraph 5

The commercial revolution tended also to spread a particular pattern of exchange. The early commercial centers of the Mediterranean most characteristically offered manufactured goods—purple dye, metal goods, wine, olive oil, and so forth—for the raw materials or the partially processed natural products of other regions. As the commercial revolution spread, this kind of exchange tended to spread with it, with the recently added areas of commerce providing new kinds of raw materials or new sources for familiar products of the natural world, and the longer established commercial centers—which might themselves have lain at the margins of this transformation—producing, or acting as the intermediaries in the transmission of, manufactured commodities. India, for instance, had developed by the turn of the era into a major exporter of its own cotton textiles, as well as naturally occurring materials, such as gems of various kinds, and at the same time its merchants were the intermediaries of the silk trade.

1. 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.

* During the commercial revolution, newer centers of trade acted as intermediaries in the exchange of different types of manufactured goods.
* Longer-established trading centers were familiar with the unprocessed products of the natural world, but depended on other areas as sources for manufactured commodities.
* Eventually, the commercial revolution led to a trading system whereby newly established commercial centers provided the resources needed for the production of goods while older trading centers produced the goods or assisted in their distribution.
* The commercial revolution depended on a system of trade where consumers valued novelty in the manufactured goods they acquired, but, at the same time, they wanted to be familiar with the natural products they received.

1. Paragraph 5 supports which of the following statements about Indian merchants at the time of the commercial revolution?

* They imported cotton, silk, and other high-quality fabrics intended for the Indian market.
* They obtained various kinds of gems from intermediaries in the silk trade.
* They were simultaneously exporters of manufactured and natural products and intermediaries for goods produced elsewhere.
* They created a highly sophisticated textile industry at the same time that they were engaged in the processing of natural products.

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

It was significantly different from the typical centers that existed before the commercial revolution.

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

Paragraph 3

■The commercial revolution constructed the economic basis as well for a new kind of town or city, an urban center that above all serviced trade and was home to the crafts and occupational specializations that went along with commercial development. ■The urban locations of earlier times commonly drew trade simply because their populations had included a privileged elite of potential consumers. ■Such towns had arisen in the first place as political and religious centers of the society, they attracted population because power and influence resides there and access to position and wealth could be gained through service to the royal or priestly leadership.■

1. 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 answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

The commercial revolution of the last millennium B. C. resulted in both political and economic changes.

●

●

●

Answer Choices

A. New kinds of urban centers emerged that focused on commerce and encouraged craft and occupational specializations.

B. Rulers in the last millennium began to promote the material prosperity of their people through support and improvement of commerce.

C. More established commercial centers supplied final products to newer regions in exchange for raw materials.

D. During the first millennium B. C., new political and religious centers arose that based their power on their ability to protect their lands and people.

E. The focus on raw materials switched the balance of power from the manufacturing centers to the control of the exporters of the natural products.

F. Military occupation of neighboring lands became a major means of expanding trade into new territories.

European Context of the Scientific Revolution

Paragraph 1

The Scientific Revolution represents a turning point in world history. By 1700 European scientists had overthrown the science and worldviews of the ancient philosophers: Aristotle and Ptolemy. Europeans in 1700 lived in a vastly different intellectual world than that experienced by their predecessors in, say, 1500. The role and power of science, as a way of knowing about the world and as an agency with the potential of changing the world, likewise underwent profound restricting as part of the Scientific Revolution.

1. The word “profound” in the passage is closet in meaning to

* frequent
* intense
* challenging
* careful

2. According to paragraph 1, what was new about the intellectual world of 1700?

* Scientists were aware that they were participating in a turning point in world history.
* Beliefs about nature developed by ancient philosophers were no longer accepted.
* People believed that science had changed the world.
* The impact of the Scientific Revolution was being felt in all aspects of European life.

Paragraph 2

The social context for science in Europe in the sixteenth and seventeenth centuries had changed in several dramatic ways from the Middle Ages (roughly, 500 C.E. to the 1400s C.E.). Advances in military technology, the European voyages of exploration, and contact with the New World altered the context in which the Scientific Revolution unfolded. The geographical discovery of the Americas generally undermined the closed Eurocentric cosmos of the later Middle Ages, and the science of geography provided a stimulus of its own to the Scientific Revolution. With an emphasis on observational reports and practical experience, new geographical discoveries challenged accepted knowledge. Cartography (mapmaking) thus provided exemplary new ways of learning about the world in general, ways self-evidently superior to mastering established doctrines from dusty books. Many of the scientists of the Scientific Revolution seem to have been involved in one fashion or another with geography or cartography.

3. According to paragraph 2, all of the following influenced European scientific thought during the sixteenth and seventeenth centuries EXCEPT

* progress in military technology
* explorative journeys made by Europeans
* views expressed in the scholarship of the Middle Ages
* the development of cartography

4. According to paragraph 2, how did the study of geography influence the Scientific Revolution?

* It supported established doctrines in the European-centered world.
* It created new ways of learning through recording observations and practical experiences.
* It contributed to advances in military technology.
* It allowed scientists from different regions to exchange information.

Paragraph 3

In the late 1430s, Johannes Gutenberg, apparently independently of the development of woodblock printing in Asia, invented printing with movable type, and the spread of this powerful new technology after 1450 likewise altered the cultural landscape of early modern Europe. The new medium created a revolution in communications that increased the amount and accuracy of information available and made copying of books by scribes obsolete. Producing some 13,000 works by 1500, printing presses spread rapidly throughout Europe and helped to break down the monopoly of learning in universities and to create a new group of nonreligious intellectuals. Indeed, the first printshops became something of intellectual centers themselves, with authors, publishers, and workers collaborating in unprecedented ways in the production of new knowledge. Renaissance humanism, that renowned philosophical and literary movement emphasizing human values and the direct study of classical Greek and Latin texts, is hardly conceivable without the technology of printing that sustained the efforts of learned humanists. Regarding science, the advent of printing and humanist scholarship brought another wave in the recovery of ancient texts. Whereas Europeans first learned of ancient Greek science largely through translations from the Arabic in the twelfth century, in the later fifteenth century scholars brought forth new editions from Greek originals and uncovered influential new sources, notably the Greek mathematician Archimedes. Similarly, printing disseminated previously obscure handbooks of technical and magical secrets that proved influential in the developing Scientific Revolution.

5. The word “obsolete” in the passage is closet in meaning to

* costly
* less frequent
* unappealing
* out of date

6. The word “obscure” in the passage is closet in meaning to

* little known
* expensive
* forbidden
* celebrated

7. Paragraph 3 suggests that before 1500 the transmission of knowledge in Europe was

* stimulated by printing developments in Asia
* dependent on collaborations between scribes and publishers
* limited to religious intellectuals in academic settings
* influenced by philosophical rather than literary sources

8. The author discusses “Renaissance humanism” in order to

* demonstrate that printing presses facilitated the spread of humanistic thought
* discuss why print shops declined as intellectual centers
* compare the beliefs of classical humanists to the Renaissance humanists
* emphasize the importance of the direct study of Greek and Latin texts

9. According to paragraph 3, what effect did the invention of printing have on science in Europe?

* Scientists were able to publish books for humanists and other non-scientific intellectuals.
* Europeans gained access to new editions of texts as well as new sources of knowledge.
* Translations of Arabic texts documenting scientific discoveries became widely available.
* Humanistic study declined as a result of the advance of scientific study.

Paragraph 4

Particularly in Italy, the revival of cultural life and the arts in the late fourteenth and fifteenth centuries commonly known as the Renaissance must also be considered as an urban and comparatively secular phenomenon, aligned with courts and courtly patronage but not with the universities, which were religiously base. One associates the great flourish of artistic activity of the Renaissance with such talents as Donatello, Leonardo da Vinci, Raphael, and Michelangelo. In comparison with medieval art, the use of perspective—a projection system that realistically renders the three dimensions of space onto the two dimensions of a canvas—represents a new feature typical of Renaissance painting, and through the work of Leon Battista Alberti, Albrecht Durer, and others, artists learned to practice mathematical rules governing perspective. So noteworthy was this development that historians have been inclined to place Renaissance artists at the forefront of those uncovering new knowledge about nature in the fifteenth and sixteenth centuries. 【Whatever one may make of that claim, early modern artists needed accurate knowledge of human muscular anatomy for lifelike renditions, and an explosion of anatomical research in the Renaissance may be attributed to this need in the artistic community.】

10. The word “associates” in the passage is closet in meaning to

* compares
* appreciates
* connects
* presents

11. According to paragraph 4, Renaissance artistic contributed to the Scientific Revolution by

* reviving medieval mathematical and scientific sources for study
* establishing institutions for the study of mathematics and scientific principles in art
* creating paintings that contributed to the wealth of the courts and courtly patronage of science
* using mathematical information to realistically represent space in art

12. 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.

* Early modern artists claim to have uncovered new knowledge about nature and human muscular anatomy before the explosion of anatomical research.
* Artists’ need for accurate knowledge in order to realistically represent the human body may have caused the sudden increase in anatomical studies in the Renaissance.
* Whatever other claims are made about early modern art, it is accurate to state that Renaissance artists were concerned with creating lifelike representations.
* The need for early modern artists to create lifelike renditions developed after the explosion of anatomical research made human anatomy clear.

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

Given the advantages these new approaches offered, it is hardly surprising that sciences associated with exploration attracted great intellectual interest.

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

Paragraph 2

■The social context for science in Europe in the sixteenth and seventeenth centuries had changed in several dramatic ways from the Middle Ages (roughly, 500 C.E. to the 1400s C.E.). ■Advances in military technology, the European voyages of exploration, and contact with the New World altered the context in which the Scientific Revolution unfolded. The geographical discovery of the Americas generally undermined the closed Eurocentric cosmos of the later Middle Ages, and the science of geography provided a stimulus of its own to the Scientific Revolution. ■With an emphasis on observational reports and practical experience, new geographical discoveries challenged accepted knowledge. Cartography (mapmaking) thus provided exemplary new ways of learning about the world in general, ways self-evidently superior to mastering established doctrines from dusty books. ■Many of the scientists of the Scientific Revolution seem to have been involved in one fashion or another with geography or cartography.

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Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Answer Choices

A.The discovery of the Americas stimulated the science of geography and cartography which in turn emphasized observation and practical experience.

B.The invention of movable type increased the accuracy and availability of information, and a new group of nonreligious scholars emerged.

C.The growth of both artistic and scientific activity in Renaissance Italy was encouraged by the financial support of universities and wealthy merchants.

D.Johannes Gutenberg’s invention of printing in the late 1430s appears to have been unrelated to earlier developments in print technology in Asia.

E. European intellectuals first discovered the existence of ancient Greek science and mathematic texts in the late fifteenth century, when translations from the Arabic finally became available.

F. The revival of culture and art in fourteenth-century Italy encouraged the development of perspective and the adherence to mathematical rules in painting.

Earth’s Energy Cycle

Paragraph 1

To understand most of the processes at work on Earth, it is useful to envisage interactions within the Earth system as a series of interrelated cycles. One of these is the energy cycle, which encompasses the great “engines”—the external and internal energy sources—that drive the Earth system and all its cycles. We can think of Earth’s energy cycle as a “budget” energy may be added to or subtracted from the budget and may be transferred from one storage place to another, but overall the additions and subtractions and transfers must balance each other. If a balance did not exist, Earth would either heat up or cool down until a balance was reached.

1. The word “encompasses” in the passage is closet in meaning to

* explains
* includes
* combines
* creates

2. The author mentions the “budget” energy in paragraph 1 in order to?

* indicate how different cycles interact with each other
* illustrate how Earth’s energy cycle must maintain in balance
* show that Earth gains energy from both external and internal sources
* explain how energy is transferred from one storage place to another

Paragraph 2

The total amount of energy flowing into Earth’s energy budget is more than 174,000 terawatts (or 174,000 ×10¹² watts). This quantity completely dwarfs the 10 terawatts of energy that humans use per year. There are three main sources from which energy flows into the Earth system.

3. Why does the author mention the energy that humans use per year?

* To call into question a large amount of energy available in Earth’s energy
* To provide a comparison that establishes how enormous amount of energy flowing into Earth’s energy budget is
* To explain why there must be more than one source of energy for the Earth system
* To argue that the use of energy by humans amounts to such a small part of Earth’s energy budget that it cannot have significant effects

Paragraph 3

Incoming short-wavelength solar radiation overwhelmingly dominates the flow of energy in Earth’s energy budget, according for about 99,986 percent of the total. An estimated 174,000 terawatts of solar radiation is intercepted by Earth. Some of this vast influx powers the winds, rainfall, ocean currents, waves, and other processes in the hydrologic (or water) cycle. Some is used for photosynthesis and is temporarily stored in the biosphere in the form of plant and animal life. When plants die and are buried, some of the solar energy is stored in rocks, when we burn coal, oil, or natural gas, we release stored solar energy.

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.

* Almost all of the short-wavelength energy in Earth’s energy budget comes from solar radiation.
* Short-wavelength radiation is by far the largest part of the total energy that the Sun radiates to Earth.
* The amount of short-wavelength radiation received from the Sun is huge by comparison to Earth’s own energy production.
* Almost the entire amount of energy that flows into Earth’s energy budget is short-wavelength radiation from the Sun.

5. According to paragraph 3, all of the following are powered by solar radiation EXCEPT

* photosynthesis in plants
* winds
* formation of rocks
* processes in the hydrologic cycle

Paragraph 4

The second most powerful source of energy, at 23 terawatts or 0.013 percent of the total, is geothermal energy, Earth’s internal heat energy. Geothermal energy eventually finds its way to Earth’s surface, primarily via volcanic pathways. It drives the rock cycle and is therefore the source of the energy that uplifts mountains, causes earthquakes and volcanic eruptions, and generally shapes the face of the Earth.

6. According to paragraph 4, all of the following can be attributable to geothermal energy EXCEPT?

* It is the main source of heat for the Earth to form
* It is responsible for earthquakes.
* It causes the eruptions of volcanoes.
* It causes mountains to rise high above the rest of Earth’s surface.

Paragraph 5

The smallest source of energy for Earth is the kinetic (motion) energy of Earth’s rotation. The Moon’s gravitational pull lifts a tidal bulge in the ocean; as Earth spins on its axis, this bulge remains essentially stationary. As Earth rotates, the tidal bulge runs into the coastlines of continents and islands, causing high tides. The force of the tidal bulge “piling up” against land masses acts as a very slow brake, actually causing Earth’s rate of rotation to decrease slightly. The transfer of tidal energy accounts for approximately 3 terawatts, or 0.002 percent of the total energy budget.

7. The word “stationary” in the passage is closet in meaning to

* isolated
* visible
* raised
* unmoving

8. Paragraph 5 supports which of the following about the Moon’s gravitational pull?

* It causes high tides that reshape the continents and islands.
* It causes Earth to rotate on its axis at a somewhat faster speed than it would otherwise.
* It pulls ocean water into a bulge that runs into land masses as Earth rotates on its axis.
* It reduces the force with which the tidal bulge would otherwise pile up against continents.

Paragraph 6

Earth loses energy from the cycle in two main ways: reflection, and degradation and re-radiation. About 40 percent of incoming solar radiation is simply reflected, unchanged, back into space by the clouds, the sea, and other surfaces. For any planetary body, the percentage of incoming radiation that is reflected is called the “albedo.” Each different material has a characteristic reflectivity. For example, ice is more reflectant than rocks or pavement; water is more highly reflectant than vegetation, and forested land reflects light differently than agricultural land. Thus, if large expanses of land are converted from forest to plowed land, or from forest to city, the actual reflectivity of Earth’s surface, and hence its albedo, may be altered. Any change in albedo will, of course, have an effect on Earth’s energy budget.

9. The word “hence” in the passage is closet in meaning to

* therefore
* perhaps
* sometimes
* obviously

10. What can be inferred from paragraph 6 if cloud cover increased the area of glaciers on the continent?

* Different materials would become more similar in their reflectivity.
* It would become a greater necessity to convert forests into plowed land and cities.
* A larger percentage of incoming solar radiation would be reflected back into space.
* The reflectivity of ice and water would change and become greater over time.

Paragraph 7

The portion of incoming solar energy that is not reflected back into space, along with tidal and geothermal energy, is absorbed by materials at Earth’s surface, in particular the atmosphere and hydrosphere. This energy undergoes a series of irreversible degradations in which it is transferred from one reservoir to another and converted from one form to another. The energy that is absorbed, utilized, transferred, and degraded eventually ends up as heat, in which form it is reradiated back into space as long-wavelength (infrared) radiation. Weather patterns are a manifestation of energy transfer and degradation.

11. The word “irreversible” in the passage is closet in meaning to

* severe
* permanent
* complex
* poorly understood

12. According to paragraph 7, weather patterns are produced as part of the cycle in which

* incoming solar energy becomes reflected back into space
* solar energy is converted into geothermal and tidal energy
* the atmosphere and hydrosphere absorb long-wavelength radiation
* energy that has been absorbed near Earth’s surface undergoes transfer and conversion of form

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

How reflective a material is depends on how light or dark it is, among other things.

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

Paragraph 6

Earth loses energy from the cycle in two main ways: reflection, and degradation and reradiation. About 40 percent of incoming solar radiation is simply reflected, unchanged, back into space by the clouds, the sea, and other surfaces. ■For any planetary body, the percentage of incoming radiation that is reflected is called the “albedo.” ■Each different material has a characteristic reflectivity. ■For example, ice is more reflectant than rocks or pavement; water is more highly reflectant than vegetation, and forested land reflects light differently than agricultural land. ■Thus, if large expanses of land are converted from forest to plowed land, or from forest to city, the actual reflectivity of Earth’s surface, and hence its albedo, may be altered. Any change in albedo will, of course, have an effect on Earth’s energy budget.

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

Earth’s energy cycle consists of all the energy inputs, outputs, and conversions within the Earth system, which must maintain an overall balance.

●

●

●

Answer Choices

A. Incoming short-wavelength solar radiation provides Earth with nearly all its energy and powers the hydrologic cycle as well as biological processes.

B. Heat energy from Earth’s interior, which powers the rock cycle, and the kinetic energy of Earth’s rotation provide small additions to solar energy.

C. Some of the incoming solar radiation is reflected, and the rest, after being absorbed, undergoes a series of conversions until it is reradiated into space as heat.

D. Humans use only a small amount of the available solar energy for heat, satisfying most of their energy needs by burning coal, oil, and natural gas.

E. Solar energy stored in rocks on Earth’s surface is the primary source of geothermal energy and tidal energy.

F. Earth’s atmosphere and hydrosphere absorb most of the incoming solar radiation, using up much of the energy to power weather patterns, with only the remainder radiated out as heat.

1. Effects of the Commercial Revolution答案：DBCDD, BABAB, CCB, 123(New kinds of, Rulers in, More established)

2. European Context of the Scientific Revolution答案：BBCBD, ACABC, DBD,

126(The discovery of, The invention of, The revival of)

3. Earth’s Energy Cycle答案：BBBDC, ADAAC, BDC, 123(Incoming short-wavelength, Heat energy, Some of)

第26套

The Origins of Plant and Animal Domestication

Paragraph 1

The emergence of plant and animal domestication represented a monumental change in the ways that humans interacted with Earth’s resources: the rate at which Earth’s surface was modified and the rates of human population growth. The development of agriculture was accompanied by fundamental changes in the organization on human society: disparities in wealth, hierarchies of power, and urbanization.

1. The word “monumental” in the passage is closet in meaning to

A. innovative

B. surprising

C. complex

D. enormous

Paragraph 2

Phrases like “plant and animal domestication” and “the invention of agriculture” create the impression that humans made the transition to cultivating plants and tending animals rather abruptly, maybe with a flash of insight. Most scholars don’t think so. It seems more likely that humans used and manipulated wild plants and animals for many hundreds of thousands of years. The transition to gardens, fields, and pastures was probably gradual, the natural outgrowth of a long familiarity with the environmental requirements, growth cycles, and reproductive mechanisms of whatever plants and animals humans liked to eat, ride, or wear.

2. According to paragraph 2, phrases such as “plant and animal domestication” and “the invention of agriculture” encourage which of the following wrong ideas?

A. Early farmers were fairly advanced in their knowledge of plants and animals.

B. Agriculture and animal domestication arose as a result of systematic study and experimentation.

C. The change from hunting and gathering to farming and raising animals occurred quickly.

D. Early efforts to raise plants and animals were generally successful.

3. The word “manipulated” in the passage is closet in meaning to

A. observed

B. consumed

C. skillfully used

D. protected

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 change to land cultivation was a slow process because humans were familiar with the needs of relatively few plants and animals.

B. The cultivation of land occurred gradually as it was the product of extensive human experience observing plants and animals of value to humans.

C. Gardens, fields, and pastures were outgrowths of the desire for plants and animals that humans knew from long familiarity were good to eat, wear, or ride.

D. People learned about environmental requirements, growth cycles, and reproductive mechanisms through their long familiarity with plants and animals that they liked to eat, ride, and wear.

Paragraph 3

For years, scholars argued that the practices of cultivation and animal domestication were invented in one or two locations on Earth and then diffused from those centers of innovation. Genetic studies are now showing that many different groups of people in many different places around the globe learned independently to create especially useful plants and animals through selective breeding. Probably both independent invention and diffusion played a role in agricultural innovation. Sometimes the ideas of domestication and cultivation were relayed to new places. In other cases the farmers or herders themselves moved into new zones, taking agriculture or improvements such as new tools or new methods or new plants and animals with them.

5. What do genetic studies suggest about the theory that “cultivation and animal domestication were invented in one or two locations on Earth and then diffused from those centers of innovation”?

A. The theory underestimates the speed at which cultivation and animal domestication were diffused.

B. The theory underestimates the number of locations in which cultivation and animal domestication arose independently.

C. The theory overemphasizes the importance of selective breeding in cultivation and animal domestication.

D. The theory overemphasizes the importance of cultivation and animal domestication to some groups of people.

Paragraph 4

Scholars used to assume that people turned to cultivating instead of gathering their food either because they had to in order to feed burgeoning populations, or because agriculture provided such obviously better nutrition. It now seems that neither of these explanations is valid. First of all, the risk attached to exploring new food sources when there were already too many mouths to feed would be too great. Second, agriculture did not necessarily improve nutrition or supplies of food. A varied diet based on gathered (and occasionally hunted) food probably provided a wider, more secure range of nutrients than an early agriculturally based diet of only one or two cultivated crops. More likely, populations expanded after agricultural successes, and not before.

6. According to paragraph 4, what advantages did the diet of hunter-gatherers probably have over an early agricultural diet?

A. It required less effort for them to acquire food that was nutritious.

B. It allowed their populations to expand across wider areas.

C. It provided a greater variety of foods needed for them to stay healthy.

D. It allowed them to have more children.

7. According to paragraph 4, what was the most likely relationship between population growth and food cultivation?

A. Population growth encouraged the development of food cultivation.

B. Population growth was dependent on the development of a varied diet of cultivated foods.

C. Successful methods of food cultivation were developed before population growth occurred.

D. Food cultivation was more successful in situations where population growth was limited.

Paragraph 5

Richard MacNeish, an archaeologist who studied plant domestication in Mexico and Central America, suggested that the chance to trade was at the heart of agricultural origins worldwide. Many of the known locations of agricultural innovation lie near early trade centers. People in such places would have had at least two reasons to pursue cultivation and animal raising; they would have had access to new information, plants, and animals brought in by traders, and they would have had a need for something to trade with the people passing through. Perhaps, then, agriculture was at first just a profitable hobby for hunters and gatherers that eventually, because of market demand, grew into the primary source of sustenance. Trade in agricultural products may also have been a hobby that led to trouble.

8. The word “pursue” in the passage is closet in meaning to

A. practice

B. encourage

C. prefer

D. combine

9. Which of the following most accurately reflects the statement discussed in paragraph 5, on efforts to cultivate plants and animals?

A. The efforts often failed because hunter-gatherers had limited access to new information about plants and animals.

B. The efforts were begun out of a desire to produce goods for trade rather than to increase their growers’ food supplies.

C. The efforts were sometimes abandoned so hunter-gatherers could become involved in the more profitable activity of trading.

D. The efforts were not profitable until people began trading food that they had raised for other goods.

Paragraph 6

E. N. Anderson, writing about the beginnings of agriculture in China, suggests that agricultural production for trade may have been the impetus for several global situations now regarded as problems: rapid population growth, social inequalities, environmental degradation, and famine. Briefly explained, his theory suggests that groups turned to raising animals and plants in order to reap the profits of trading them. As more labor was needed to supply the trade, humans produced more children. As populations expanded, more resources were put into producing food for subsistence and for trade. Gradually, hunting and gathering technology was abandoned as populations, with their demands for space, destroyed natural habitats. Meanwhile, a minority elite emerged when the wealth provided by trade did not accrue equally to everyone. Yet another problem was that a drought or other natural disaster could wipe out an entire harvest, thus, as ever larger populations depended solely on agriculture, famine became more common.

10. Which of the following most accurately reflect the relationship between

paragraph 6 and a topic discussed in paragraph 5?

A. Paragraph 6 discusses a series of events that calls into question the theory that plants and animals were raised for purposes of trade.

B. Paragraph 6 presents evidence supporting the claim that many sites of agricultural innovation were located near trade centers.

C. Paragraph 6 identifies problems that led to the raising of plants and animals as the primary source of sustenance.

D. Paragraph 6 traces negative developments that arose possibly as a result of raising plants and animals for trade.

11. The word “subsistence” in the passage is closet in meaning to

A. profit

B. surplus

C. enjoyment

D. survival

12. Look at the four squares [] that indicate where the following sentence can be added to the passage.

Among the many places that are now known to be centers of independent domestication are Mesopotamia, Central China, and Mesoamerica.

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

Paragraph 3

For years, scholars argued that the practices of cultivation and animal domestication were invented in one or two locations on Earth and then diffused from those centers of innovation. [A] Genetic studies are now showing that many different groups of people in many different places around the globe learned independently to create especially useful plants and animals through selective breeding. [B] Probably both independent invention and diffusion played a role in agricultural innovation. [C] Sometimes the ideas of domestication and cultivation were relayed to new places. In other cases the farmers or herders themselves moved into new zones, taking agriculture or improvements such as new tools or new methods or new plants and animals with them. [D]

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Drag your choices to the spaces where they belong. To review the passage, click on View Text.

Agriculture invention and animal domestication caused lasting changes to how humans live and to the physical surface of Earth.

Answer Choices

1. The transition from hunting and gathering to raising plants and animals was gradual and led to significant changes in the organization of human societies.

B. Scholars now believe that agriculture and animal domestication began independently in many separate locations and then spread to new areas.

C. As trade in agricultural products grew and social inequalities arose, new crops were developed specifically to feed the labor needed to support societies.

D. Although it is now clear that agriculture developed independently in many places, often the most efficient techniques arose by combing practices of different cultures.

E. Agriculture became more widespread when human populations realized that an agricultural diet supplemented through trade could provide as much nutrition as the hunter-gatherer diet.

F. The earliest reason for raising plants and animals may have been to provide goods for trade, and such trade may account for the rise in social problems such as environmental destruction.

Preventing Overgrowth among Tree Branches

Paragraph 1

One way trees prevent themselves from having too many branches is simply by shedding (dropping off) branches once they have fulfilled their purpose. This happens as the tree gets bigger and grows new outer layers of foliage that shade the inner and lower branches. In most large trees, the center of the canopy contains only large branches, small branches and fine twigs are found only at the canopy’s edge. In the shaded center, the small branches that would once have occupied that space are long gone. Trees like the true cypresses regularly shed small twigs complete with leaves toward the end of summer. Most other trees shed only branches that prove unproductive. If a branch is not producing enough carbohydrate to cover its own running costs—i.e., it needs to be subsidized by other branches because, for example, it is being shaded and receives little light—it will usually be got rid of. This prevents unproductive branches from being a drain on the tree and removes the wind drag (the force of air resistance) from useless branches.

1. All of the following situations are mentioned in paragraph 1 for a tree to shed its branches EXCEPT

A. endangering other branches

B. building up on a tree

C. wasting a tree’s resources

D. growing larger

2. 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. A tree will usually shed branches that use more carbohydrate than they produce.

B. Branches that are shaded usually do not receive enough light to produce all the carbohydrate they need.

C. If a tree gets rid of a branch, it is usually because other branches lack enough carbohydrate to subsidize it.

D. If a branch is shaded and cannot produce as much carbohydrate as it needs, it will usually be subsidized by other branches.

3. According to paragraph 1 most twigs of the true cypresses would be arranged in which of the following manner

A. Most small twigs on true cypresses have been found located at the margins of the canopy.

B. The shaded center areas of true cypresses are generally occupied by many small twigs and branches.

C. True cypresses shed twigs that grow on large, unproductive branches.

D. True cypresses seasonally shed small twigs without regard to whether they are productive or not.

Paragraph 2

Branches are shed for reasons other than lack of light. In dry parts of the world, it is common for trees and shrubs to lose smaller branches to save water. Small branches have the thinnest bark (the protective outer covering of a tree) and greatest surface area and thus are the source of most water loss once the leaves have been lost. The creosote bush of United States deserts self-prunes, or removes parts of itself, in the face of extreme heat or drought, starting from the highest and most exposed twigs and working downward to bigger and bigger branches; it’s a desperate act because if the creosote bush loses too much wood, it dies. Shedding branches can also be useful for self-propagation. Most poplar trees and willow trees characteristic of waterways will readily drop branches, which take root when washed up on muddy banks further downstream.

4. Which of the following best describes the role of the explanation offered in paragraph 2?

A. Paragraph 2 questions this explanation by providing counterexamples of some trees.

B. Paragraph 2 presents additional evidence supporting this explanation.

C. Paragraph 2 discusses some additional reasons why trees shed branches

D. Paragraph 2 points out some additional consequences for trees besides the shedding of branches

5. The word “exposed” in the passage is closet in meaning to

A. distant

B. unprotected

C. easily replaced

D. unproductive

6. According to paragraph 2, what is true of the creosote bush of United States deserts?

A. It tends to grow small branches during dry parts of the year.

B. It loses more water through its bark than through its leaves.

C. It loses its lower branches only after losing upper ones.

D. It sheds branches for the purpose of propagating itself.

Paragraph 3

How are branches shed? In the simplest cases, dead branches rot and fall off, or healthy branches are snapped off by wind, snow, and animals. Some willows have a brittle zone at the base of small branches that encourages breaking in the wind, seemingly for propagation. Other cases of “natural pruning” are more startling: elm trees, and to a certain extent others, such as oaks, have a reputation for dropping large branches (up to half a meter in diameter) with no warning on calm, hot afternoons. Such dramatic shedding appears to be due to a combination of internal water stress coupled with heat expansion affecting cracks and decayed wood.

7. The phrase “with no warning” in the passage is closet in meaning to

A. without any benefit

B. without any stress

C. without any indication beforehand

D. without any damage

8. All of the following are mentioned in paragraph 3 as a way in which branches can be lost EXCEPT:

A. being broken off by the wind

B. being shed for propagation

C. becoming rotten

D. becoming too large in diameter

9. Which of the following is mentioned in paragraph 3 in the shedding of large branches by oaks on calm, hot afternoons?

A. The development of a brittle zone at the base of the branches

B. The enlargement of cracks in the branches due to heat

C. The rise of sudden bursts of wind that snap off decayed wood

D. The seasonal need to propagate new trees

Paragraph 4

Many trees, however, shed branches deliberately. In this situation, branches are shed in the same way as foliage in autumn by the prior formation of a corky layer that leaves the wound sealed over with cork, which in turn is undergrown with wood the following year. In hardwoods, branches up to a meter in length and several centimeters in diameter can be shed normally after the leaves have fallen in the autumn (maples are unusual in casting branches mainly in spring and early summer). Oaks tend to shed small twigs up to the thickness of a pencil, beech may shed larger ones, and birches dump whole branches of dead twigs. Pine trees shed their clusters of needles (which really are short branches), and members of the redwood family shed their small branch lets with leaves. Typically, in hardwood trees, something around 10 percent of terminal branches are lost each year through a mixture of deliberate shedding and being broken off.

10. According to paragraph 4, what information can be learned from the deliberate shedding of branches by the trees?

A. Limiting the size of branches being shed to comparatively small ones

B. Forming a new layer of wood to seal the wounded area immediately after shedding

C. Shedding leaves at the same time that branches are being shed

D. Forming a layer of protective tissue before branch shedding begins

Paragraph 5

Another way of reducing potential congestion is to make some branches smaller than others. Branches in the shade grow smaller than those in the sun. But trees can also regulate branch length from within. In many trees there is a clear distinction between long and short branches or shoots. The long shoots build the framework of the tree, making it bigger. The job of the short shoots (called spur shoots by horticulturalists) is to produce leaves, and commonly flowers, at more or less the same position every year. To maintain flexibility, any one shoot can switch from long to short or vice versa depending on internal factors, light levels, and damage.

11. The word “congestion” in the passage is closet in meaning to

A. loss

B. damage

C. overcrowding

D. stress

12. According to paragraph 5, what is the main purpose of the long branches or shoots?

A. To regulate the length of large branches

B. To increase the size of the tree

C. To produce leaves and flowers

D. To help create shaded areas

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

A tree will also shed branches if its water supply is insufficient.

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

Paragraphs 1-2

One way trees prevent themselves from having too many branches is simply by shedding (dropping off) branches once they have fulfilled their purpose. This happens as the tree gets bigger and grows new outer layers of foliage that shade the inner and lower branches. In most large trees, the center of the canopy contains only large branches, small branches and fine twigs are found only at the canopy’s edge. In the shaded center, the small branches that would once have occupied that space are long gone. Trees like the true cypresses regularly shed small twigs complete with leaves toward the end of summer. Most other trees shed only branches that prove unproductive. If a branch is not producing enough carbohydrate to cover its own running costs—i.e., it needs to be subsidized by other branches because, for example, it is being shaded and receives little light—it will usually be got rid of. This prevents unproductive branches from being a drain on the tree and removes the wind drag (the force of air resistance) from useless branches. [A]

Branches are shed for reasons other than lack of light. [B] In dry parts of the world, it is common for trees and shrubs to lose smaller branches to save water. [C] Small branches have the thinnest bark (the protective outer covering of a tree) and greatest surface area and thus are the source of most water loss once the leaves have been lost. [D] The creosote bush of United States deserts self-prunes, or removes parts of itself, in the face of extreme heat or drought, starting from the highest and most exposed twigs and working downward to bigger and bigger branches, it’s a desperate act because if the creosote bush loses too much food, it dies. Shedding branches can also be useful for self-propagation. Most poplar trees and willow trees characteristic of waterways will readily drop branches, which take root when washed up on muddy banks further downstream.

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For trees to remain healthy as they grow and as circumstances change, tree branches must change in various ways.

Answer Choices

A. Trees can benefit from shedding inefficient branches that consume more carbohydrates than they produce or that are a major source of water loss.

B. Branches can be lost as a result of damage from whether, animals, or disease, but they can also be shed when they are no longer useful, much as leaves are shed in autumn.

C. While branch shedding is common and may be necessary for a tree’s survival, the corky layer that forms at sites where branches have been shed prevents additional growth in those areas for several years.

D. Shedding large branches is such a desperate act for survival that the creosote bush is one of the few plants to use this mechanism for removing wood.

E. Larger trees can self-propagate when water stress and heat expansion break off branches, as long as the shed branches fall on or can be transported to a location favorable for taking root.

F. Trees prevent branch overcrowding in part by varying branch length through internal mechanisms such as having shoots that can switch from long to short or from short to long, as needed.

Early life-forms and Earth’s Atmosphere(2014-06-15考过一次)

Paragraph 1

Position relative to the Sun. Second, once life began on Earth, simple early life-forms (photosynthetic bacteria) slowly but inexorably altered the environment in a manner that not only maintained life but also paved the way for later, complex life-forms. These changes allowed later organisms to evolve and thrive. Humans and other higher organisms owe their life-supporting environment to these early life-forms.

1. The word “altered” in the passage is closet in meaning to

* transformed
* protected
* made use of
* adapted to

1. Paragraph 1 supports which of the following inferences?

* After complex life forms arose on Earth, bacteria quickly evolved in order to maintain favorable conditions for life.
* Early life forms on Earth arose from the process of photosynthesis.
* The development of complex life on Earth depended on the presence of bacteria that could be consumed by larger organisms.
* Complex life forms on Earth may not have evolved if Earth had been farther from or closer to the Sun.

Paragraph 2

Earth’s earliest atmosphere contained several gases: hydrogen, water vapor, ammonia, nitrogen, methane, and carbon dioxide, but no oxygen. Gas mixtures emitted from present-day volcanoes resemble this early atmosphere, suggesting its origin from volcanic eruptions. In Earth’s earliest atmosphere, methane and carbon dioxide occurred at much higher levels than at present—a circumstance that was favorable for early life. Methane and carbon dioxide are greenhouse gases that warm atmospheres by retarding loss of heat to space. These two gases kept Earth warm during the Sun’s early history, when the Sun did not burn as brightly as it now does. (An early dim period, with later brightening, is normal for stars of our Sun’s type.)

1. The word “emitted” in the passage is closet in meaning to

* disappearing
* examined
* released
* taken

1. The word “retarding” in the passage is closet in meaning to

* regulating
* slowing
* restoring
* directing

1. In paragraph 2, why does the author provide the information that methane and carbon dioxide kept the Earth warm during the Sun’s early history?

* To explain how the early Earth and the early Sun were related
* To support the claim that methane and carbon dioxide are greenhouse gases
* To explain why the high levels of methane and carbon dioxide in Earth’s early atmosphere were favorable for early life
* To suggest that these gases affect how brightly the Sun burns

1. Paragraph 2 supports which of the following statements about methane and carbon dioxide present in Earth’s earliest atmosphere?

* They slowed down the loss of heat from Earth’s atmosphere.
* They caused the sunlight to be less bright than it currently is.
* They occurred in smaller amounts than they currently do.
* They prevented the development of early life-forms.

Paragraph 3

Earth’s modern atmosphere, which is 78 percent nitrogen gas, 21 percent oxygen, and about 1 percent argon, water vapor, ozone, and carbon dioxide, differs dramatically from the earliest atmosphere just described. The modern atmosphere supports many forms of complex life that would not have been able to exist in Earth’s first atmosphere because the oxygen level was too low. Also, if atmospheric methane and carbon dioxide were as abundant now as they were in Earth’s earliest atmosphere, the planet’s temperature would likely be too hot for most species living today. How and when did the atmosphere change?

1. The word “abundant” in the passage is closet in meaning to

* pure
* balanced
* plentiful
* warm

1. According to paragraph 2 and 3, which of the following is one way in which Earth’s early atmosphere differed from its current atmosphere?

* It had fewer greenhouse gases.
* It was warmer.
* It had lower levels of carbon dioxide.
* It did not contain methane.

Paragraph 4

The answer to this riddle lies in the metabolic activity of early photosynthetic life-forms that slowly but surely transformed the chemical composition of Earth’s atmosphere. Some of these early organisms were photosynthetic relatives of modern cyanobacteria (blue-green bacteria). In the process of photosynthesis, carbon dioxide gas combined with water yields oxygen. In Earth’s early days, all over the planet countless photosynthetic bacteria performed photosynthesis. Together, these ancient bacteria removed massive amounts of carbon dioxide from Earth’s atmosphere by converting it to solid organic carbon. These ancient bacteria also released huge quantities of oxygen into the atmosphere. Other ancient bacteria consumed methane, greatly reducing its amount in the atmosphere. When our Sun later became hotter, the continued removal of atmospheric carbon dioxide and methane by early bacteria kept Earth’s climate from becoming too hot to sustain life. Modern cyanobacteria still provide these valuable services today.

1. The word “sustain” in the passage is closet in meaning to

* change
* generate
* destroy
* support

1. According to paragraph 4, ancient bacteria changed the chemical composition of Earth’s atmosphere by performing all of the following activities EXCEPT

* raising the temperature of the atmosphere
* removing methane and carbon dioxide
* creating organic carbon
* producing oxygen

Paragraph 5

The bacterial oxygen release improved conditions for life in two ways. First, oxygen is essential for the metabolic process known as cell respiration that allows cells to efficiently harvest energy from organic food. Second, oxygen in the upper atmosphere reacts to form a protective shield of ozone. Earth is constantly bombarded by harmful ultraviolet (UV) radiation from the Sun. Today, Earth’s upper-atmosphere ozone shield absorbs enough UV to allow diverse forms of life to survive. But because early Earth lacked oxygen in its atmosphere, it also lacked a protective ozone barrier. As a result, early life on Earth was confined to the oceans, where the water absorbed the UV radiation. Only after oxygen released by ancient bacteria drifted up into the upper atmosphere and reacted with other oxygen molecules to form a protective layer of ozone, could life flourish at the surface and on the land. 【The absence of an oxygen atmosphere on Mars and other planets in our solar system means that these planets also lack an ozone shield that would protect surface-dwelling life from UV radiation. 】The surface of Mars is bombarded with deadly radiation; if any life exists on Mars, it would almost certainly be subterranean.

11. It can be inferred from paragraph 5 that early life-forms on Earth were confined to the oceans because

* the thick ozone layer at the time would have made it difficult for them to survive on land
* water was the only available protection they had against ultraviolet radiation
* land provided them with only limited amounts of water needed for survival
* their metabolic systems were inefficient

Paragraph 5 is marked with an arrow [→]

12. 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.

* Any life forms that may have existed on other planets probably were destroyed by UV radiation.
* Other planets in our solar system lack the oxygen atmosphere that helps explain why life exists on Earth.
* The absence of oxygen on other planets means that those planets lack an ozone shield to protect life forms against UV radiation.
* Life forms cannot survive UV radiation without the protection of an ozone shield.

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

But protection against what?

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

Paragraph 5

The bacterial oxygen release improved conditions for life in two ways. First, oxygen is essential for the metabolic process known as cell respiration that allows cells to efficiently harvest energy from organic food. Second, oxygen in the upper atmosphere reacts to form a protective shield of ozone. ■Earth is constantly bombarded by harmful ultraviolet (UV) radiation from the Sun. ■Today, Earth’s upper-atmosphere ozone shield absorbs enough UV to allow diverse forms of life to survive. ■But because early Earth lacked oxygen in its atmosphere, it also lacked a protective ozone barrier. ■As a result, early life on Earth was confined to the oceans, where the water absorbed the UV radiation. Only after oxygen released by ancient bacteria drifted up into the upper atmosphere and reacted with other oxygen molecules to form a protective layer of ozone, could life flourish at the surface and on the land. The absence of an oxygen atmosphere on Mars and other planets in our solar system means that these planets also lack an ozone shield that would protect surface-dwelling life from UV radiation. The surface of Mars is bombarded with deadly radiation; if any life exists on Mars, it would almost certainly be subterranean.

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices 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.

Earth’s earliest atmosphere was transformed in ways that allowed the development of complex life forms.

A. Volcanoes changed Earth’s earliest atmosphere in ways that allowed life to develop, and bacteria that used oxygen produced by photosynthesis further altered the atmosphere to what we find today.

B. When the sun became brighter, early bacteria removed methane and carbon dioxide from the atmosphere, preventing Earth from becoming too hot for life to survive.

C. Early bacteria provided the oxygen that was needed to support the metabolism of complex life forms and to form an ozone shield against deadly UV radiation.

D. Volcanic carbon dioxide in Earth’s early atmosphere kept Earth warm enough for life to begin during the time when the Sun was too dim to provide much warmth.

E. Earth has been able to support life because its position relative to the Sun provided it with enough heat, but not too much heat for early bacteria to evolve.

F. Complex life evolved on the Earth’s surface, but not on Mars or other planets in the solar system because on those planets, early surface life was killed by UV radiation.

The Origins of Plant and Animal Domestication

The Origins of Plant and Animal Domestication答案：DCCBB CCABD DB ABF

Preventing Overgrowth among Tree Branches

Preventing Overgrowth among Tree Branches答案：BADCB CCDBD CBB ABF

第三篇Early life-forms and Earth’s Atmosphere答案：

ADCBC, ACBDA, BCA, 234

此篇暂无解析

第27套

Birdsong

Paragraph 1

Birdsong is the classic example of how genes (hereditary information) and environment both have a crucial role to play in the behavioral development of animals. Since the pioneering work of W. H. Thorpe on chaffinches (a common European bird), many species have been studied, and it has become clear both that learning plays an important role for all species and also that there are constraints on what they are able to learn.

1. The word “pioneering” in the passage is closet in meaning to

* recent
* famous
* original
* controversial

Paragraph 2

Thorpe was able to show that learning from others was involved in chaffinch birds through a series of experiments on hand-reared chicks (young birds). As in most other species, only the males sing. Thorpe found that, if he raised young males in total isolation from all others, the song they produced was quite different from that of a normal adult. It was about the right length and in the correct frequency range. It was also split up into a series of notes as it should be. But these notes lacked the detailed structure found in wild birds, nor was the song split up into distinct phrases as it usually is. This suggested that song development requires some social influence. Later experiments in which researchers played recordings of songs to young birds showed just how precise this influence was: many of them would learn the exact pattern of the recording they had heard. A remarkable feature here was that birds were able to copy precisely songs that they only heard in the first few weeks of life, yet they did not sing themselves until about eight months old. They are thus able to store a memory of the sound within their brain and then match their own output to their recollection of it when they mature.

1. The word “distinct” in the passage is closet in meaning to

* short
* simple
* separate
* similar

1. According to paragraph 2, all of the following are characteristics of the songs of the young chaffinches in Thorpe’s experiment EXCEPT:

* They were not identical to the songs of normal adult chaffinches.
* They lacked the complex form of the songs of wild chaffinches.
* They were as long as the songs of normal adult chaffinches.
* They were clearly different from each other.

1. According to paragraph 2, researchers discovered which of the following by playing recordings of songs to chaffinches?

* Chaffinches could no longer be taught to reproduce sounds after the first few weeks of life.
* Chaffinches could not reproduce songs with exactly the same patterns of recorded songs.
* Chaffinches at the age of eight months could recall and reproduce a song that they heard in the first few weeks of life.
* Chaffinches that learned a song from recordings in the first few weeks of life were later unable to copy the sounds of mature chaffinches.

1. All of the following are mentioned in paragraph 2 as characteristics of wild chaffinches EXCEPT:

* They are able to copy songs very precisely.
* Their song development requires interaction with other chaffinches.
* Their songs are not as well-structured as the songs of other birds.
* It is the males of the species that do the singing.

Paragraph 3

Young chaffinches normally learn only chaffinch song, though Thorpe found they could be trained to sing the song of a tree pipit (another type of bird), which is very similar to that of their own species. In general, however, the constraints on learning which birds have ensure that they only learn songs appropriate to the species to which they themselves belong. These constraints may be in their brain’s circuitry, the young bird hatching with a rough idea of the sounds that it should copy. The crude song of a bird reared in isolation gives some clues as to what this rough idea may be: the length, the frequency range and the breaking up into notes are all aspects of chaffinch song shared between normal birds and those reared in isolation. In other cases the constraints are more social, young birds only being prepared to learn from individuals with whom they have social interactions. Thus, in a number of species, it has been found that they will not copy from recordings, but will do so from a live tutor. In some cases this may occur when they are young birds, but in others the main learning period is when they set up their territories and interact with neighbors for the first time, enabling them to match their neighbor’s songs and so countering with them. Whatever the nature of the learning rules in a particular species, there is no doubt that they are effective; it is very unusual to hear a wild bird singing a song which is not typical of its own species despite the many different songs which often occur in a small patch of woodland.

1. The word “enabling” in the passage is closet in meaning to

* allowing
* challenging
* forcing
* preparing

1. It can be inferred from paragraph 3 that one of the functions of songs in birds is to

* bring together birds living in groups with birds living in isolation
* help young birds distinguish other young birds from adults
* make possible interactions between birds of different species
* help birds to establish territories

1. 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.

* Songs produced by chaffinches reared in isolation are cruder than the songs of wild birds.
* The song of a bird reared in isolation suggests which aspects of chaffinch song may be inborn.
* Comparing the crude songs of chaffinches reared in isolation to the songs of wild chaffinches suggests differences as well as similarities.
* Studying the song aspects of chaffinches reared in isolation, researchers have gained a better understanding of the songs produced by wild birds.

1. According to paragraph 3, in some species, young birds do not copy songs from recordings because

* they learn to sing only by live interactions with other birds
* their ability to learn from recordings occurs later in life
* they can only learn the songs of the birds living in their area of woodland
* they can only learn songs from other birds of their own species

1. Why does the author mention that it is very unusual to hear a wild bird singing a song which is not typical of its own species?

* To explain why a variety of different bird songs are often heard in a relatively small area
* To argue that social constraints have a greater impact upon learning than do genetic constraints
* To provide an example of how the process of learning rules varies from one species to another
* To illustrate how effective the different constraints upon learning are in young birds

Paragraph4

However, not all birds show the same learning pattern as do chaffinches. There are some species which produce normal sounds even if deaf, so that they cannot hear their own efforts, much less copy those of others. The cooing of doves and the crowing of cocks are examples here. In other cases, such as parrots and hill mynahs, birds can be trained to copy a huge variety of sounds, though those they learn in the wild are usually more restricted. The amazing capability of mynahs has apparently arisen simply because birds in an area learn a small number of their calls from each other, males from males and females from females, and these calls are highly varied in structure. The ability to master them has led the birds, incidentally, to be capable of saying “hello” and mimicking a wide variety of other sounds.

1. The word “restricted” in the passage is closet in meaning to

* important
* popular
* limited
* accurate

1. According to paragraph 4, why are mynahs able to learn to make a wide variety of sounds?

* They have the ability to imitate any sound that they are exposed to.
* The frequency with which mynahs travel from one small area to another exposes them to a wide variety of sounds.
* They are exposed in the wild to calls that are very different from each other.
* An acute sense of hearing allows them to listen to and copy many different sounds.

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

Are these constraints genetic, environmental, or both?

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

Paragraph 3

Young chaffinches normally learn only chaffinch song, though Thorpe found they could be trained to sing the song of a tree pipit (another type of bird), which is very similar to that of their own species. ■In general, however, the constraints on learning which birds have ensure that they only learn songs appropriate to the species to which they themselves belong. ■These constraints may be in their brain’s circuitry, the young bird hatching with a rough idea of the sounds that it should copy. ■The crude song of a bird reared in isolation gives some clues as to what this rough idea may be: the length, the frequency range and the breaking up into notes are all aspects of chaffinch song shared between normal birds and those reared in isolation. ■In other cases the constraints are more social, young birds only being prepared to learn from individuals with whom they have social interactions. Thus, in a number of species, it has been found that they will not copy from recordings, but will do so from a live tutor. In some cases this may occur when they are young birds, but in others the main learning period is when they set up their territories and interact with neighbors for the first time, enabling them to match their neighbor’s songs and so countersing with them. Whatever the nature of the learning rules in a particular species, there is no doubt that they are effective; it is very unusual to hear a wild bird singing a song which is not typical of its own species despite the many different songs which often occur in a small patch of woodland.

1. 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 answer choices do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage.

A. Although only male chaffinches are able to sing in the wild, Thorpe found that he could teach hand-reared females to copy songs from recordings and live tutors.

B. Chaffinches reared in isolation produce songs that differ significantly from those of normal birds, suggesting that some social influence is important for learning a song precisely.

C. Birds vary a great deal with respect to both the variety of sounds they are able to learn and the conditions that must be present for them to be able to learn their species’ song.

D. Chaffinches that are exposed only to other bird species for the first few weeks of their life are likely to learn the songs of those species instead of the chaffinch song.

E. Researchers believe that both the circuitry or a bird’s brain and its interactions with other birds of the same species may prevent birds from learning the songs of other species.

F. The ability of deaf birds to produce their normal species’ song suggests that genes play a much greater role than environment in determining the behavior of most bird species.

The Role of Diapause

Paragraph 1

If conditions within an organism’s environment occasionally or regularly become harsh, it may be advantageous for an organism to have a resistant stage built into the life cycle. In such a life history strategy, the organism suspends any growth, reproduction, or other activities for a period of time so that they may occur at a later, more hospitable time. This genetically determined resting stage, characterized by the cessation of development and protein synthesis and suppression of the metabolic rate, is called diapause. Many other kinds of resting stages, with different levels of suppression of physiological activities, are known. Some of these resistant stages can be extremely long-lived. In one case, seeds of the arctic lupine, a member of the pea family recovered from ancient lemming burrows in the Arctic, germinated in three days even though they were carbon-dated at more than 10,000years old!

1. According to paragraph 1, why do some organisms have a resting stage during their life cycle?

A. To recover from injuries suffered during harsh conditions

B. To devote all of their energy to a period of growth and reproduction

C. To wait for local conditions to become favorable for important life events

D. To prepare to move to a different environment if conditions become harsh

2. Why does the author mention “seeds of the arctic lupine”？

A. To argue that members of the pea family are extremely resistant to cold temperatures

B. To provide information about what ancient lemmings ate during their long resting periods

C. To provide an example of an organism with a resting stage that has many different levels of suppression of physiological activities.

D. To support the claim that some resting stages last an extremely long time

Paragraph 2

Unfavorable conditions that are relatively predictable probably pose a simpler problem for organisms than do unpredictable conditions. Adaptations to the regular change of seasons in the temperate and polar regions may be relatively simple. For example, many seeds require a period of stratification, exposure to low temperatures for some minimum period, before they will germinate. This is a simple adaptation to ensure that germination occurs following the winter conditions rather than immediately prior to their onset. In contrast, unfavorable conditions that occur unpredictably pose considerable problems for organisms. In fact, unpredictability is probably a greater problem than is the severity of the unfavorable period. How can organisms cope with the unpredictable onset of good or poor conditions?

3. According to paragraph 2, why do many seeds require a period of stratification?

A. To slowly build up a tolerance for lower and lower temperatures

B. To guarantee that the seeds grow after and not before

C. To make sure that the seeds can deal with unpredictable conditions

D. To give the seeds enough time to germinate before winter begins

4. The word “ severity ” in the passage is closest in meaning to

A. length

B. harshness

C. unexpectedness

D. Completeness

Paragraph 3

Many adaptations to this general problem are based on a resting stage that awaits favorable conditions. We will consider two examples from the vertebrates. The first is the red kangaroo. This marsupial inhabits the deserts of central Australia where the onset of rains and the resulting sudden growth of vegetation are extremely unpredictable. Obviously, it is advantageous for a kangaroo female to produce young at a time when plant productivity is sufficient to support her offspring. For such a relatively large mammal, however, gestation (the period of development during pregnancy) is so long that if a female waited to mate and carry the young until after the rains came, the favorable period might be past. The kangaroo’s life history adaptation to this problem involves the use of embryonic diapause during gestation (development in the uterus).

(第三段未直接出题，但主旨题可能考到里面的选项)

Paragraph 4

After a 31-day gestation period, the female gives birth to a tiny helpless

young typical of marsupials. The newborn crawls into the mother’s pouch and attaches to a teat where it continues to grow and develop. After 235 days it leaves the pouch but remains with the mother and obtains milk from her. Two days after giving birth, the female mates again. The fertilized egg enters a 204-day period of diapause during which it remains in the uterus but does not attach. It then implants, and 31 days later, birth of the second young occurs. Note that the first young leaves the pouch at just this time. Again, the female mates, fertilization occurs, and another diapause follows. The eventual result is that at any one time, the female has three young at various stages of development one in diapause, one in the pouch, and one outside the pouch. Among other benefits, this allows her to freeze the development of an embryo during times of drought and food shortage until the offspring in the pouch is able to leave.

5. According to paragraph 4, all of the following statements are true about the young offspring of the red kangaroo EXCEPT:

A. After birth, a newborn crawls into the mother’s pouch where it grows and develops.

B. After a young kangaroo leaves its mother’s pouch, it still needs its mother’s milk.

C. A mother usually gives birth to three baby kangaroos at the same time.

D. A baby kangaroo spends 235 days in the mother’s pouch after its birth.

6. Paragraph 4 supports all of the following statements about the red kangaroo of central Australia EXCEPT:

A. A female kangaroo mates again shortly after her newborn enters her pouch.

B. During diapause, a young kangaroo stays in the female’s pouch and growth of a

second fertilized egg inside the uterus is delayed.

C. A female kangaroo can freeze the development of her young at each stage of their

development.

D. The adaptation of diapause enables female kangaroos to ensure the survival of their young during periods of environmental stress.

7. What is the main purpose of paragraph 4 in the passage?

A. To give the details of an adaptation mentioned in paragraph 3

B. To describe an adaptation different from the one explained in paragraph 3

C. To introduce an adaptation that is described in detail in paragraph 5

D. To discuss an adaptation that is not as successful as the one discussed in paragraph 5

Paragraph 5

A similar strategy - accelerated development combined with a resting stage - has also allowed amphibians to inhabit deserts. The spadefoot toads, such as Couch’s spadefoot toad, inhabit some of the most severe deserts in North America. Adults of this species burrow deeply into the substrate where it is cooler and perhaps more moist. Here they enter into a resting state in which they are covered with a protective layer of dead skin. When it rains, the adults emerge and congregate to mate at temporary ponds. Development is greatly accelerated: the eggs hatch within 48 hours, and the tadpoles change into toads at 16- 18 days. Consequently, they can complete the life cycle during the brief window of favorable conditions, then return to the resistant resting stage to await the next rainfall. Resting stages thus comprise a series of adaptations that allow the species to avoid the most difficult conditions for life.

8. The word “ congregate “ in the passage is closest in meaning to

A. begin

B. gather

C. hurry

D. Expect

9. The word “ Consequently “ in the passage is closest in meaning to

A. Eventually

B. In addition

C. As a result

D. However

10. The word “comprise” in the passage is closest in meaning to

A. consist of

B. bring about

C. are similar to

D. take the place of

11. According to paragraph 5, how do amphibians such as spadefoot toad survive the

severe heat conditions in the North American deserts?

A. They dig down into the ground and go into a resistant resting state.

B. They remain in the ponds that develop after it has rained.

C. They lose their outer layer of skin.

D. Their eggs lie dormant until the desert air becomes cooler and more moist.

12. According to paragraph 5, which of the following occurs during the life cycle of the spadefoot toad?

A. The female’s’ eggs hatch under the surface of the desert.

B. The adults mate during the dry period.

C. The newborn grows into an adult before unfavorable conditions.

D. The newborn enters a resting stage before it becomes an adult.

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

Such adaptations to predictable conditions can also be made by animals, such as by hibernating during the coldest months.

Unfavorable conditions that are relatively predictable probably pose a simpler problem for organisms than do unpredictable conditions. Adaptations to the regular change of seasons in the temperate and polar regions may be relatively simple. For example, many seeds require a period of stratification, exposure to low temperatures for some minimum period, before they will germinate. ■ This is a simple adaptation to ensure that germination occurs following the winter conditions rather than immediately prior to their onset. ■ In contrast, unfavorable conditions that occur unpredictably pose considerable problems for organisms. ■ In fact, unpredictability is probably a greater problem than is the severity of the unfavorable period. ■ How can organisms cope with the unpredictable onset of good or poor conditions?

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Some organisms adapt to periodic harsh conditions by building a resistant stage, or diapause, into their life cycle.

A. The diapause stage evolved very early and is most common in species that first appeared more than 10,000 years ago.

B. Unpredictable conditions are more problematic for organisms than are fairly predictable changes such as the seasons.

C. The female red kangaroo adapts to unfavorable conditions by delaying the development of her fertilized egg until an embryo would be able to move into the pouch.

D. Some seeds may germinate in three days even if they have been exposed to very low temperatures for a long time.

E. Some marsupials can care for three newborns in their pouch at the same time, allowing the young to leave the pouch only when conditions are favorable for their growth.

F. Some amphibians adapt to desert life by combining accelerated development with resting stages deep underground.

第三篇The Plow and the Horse in Medieval Europe同2015年混编第一套中的第二篇

1. Birdsong答案：CCDCC,ADBAD,CCB（BCE）

1. The Role of Diapause答案：1. C 2. D 3. B 4. B 5. C 6. C 7. A 8. B 9. C 10. A 11. A 12. C 13. B 14. BEF

第28套

Earth’s Atmosphere（17年3月4日又考了）

Earth’s atmosphere has changed through time. Compared to the Sun, whose composition is representative of the raw materials from which Earth and other planets in our solar system formed, Earth contains less of some volatile elements, such as nitrogen, argon, hydrogen, and helium. These elements were lost when the envelope of gases, or primary atmosphere, that surrounded early Earth was stripped away by the solar wind or by meteorite impacts, or both. Little by little, the planet generated a new, secondary atmosphere by volcanic outgassing of volatile materials from its interior.

1..In paragraph 1, why does the author state that Earth has less nitrogen, argon, hydrogen, and helium than the Sun

A. To argue that these elements were once part of an early atmosphere, which disappeared

B. To suggest that these elements were drawn into the Sun's atmosphere

C. To provide evidence that Earth's original atmosphere came primarily from meteorites

D. To support the claim that Earth's atmosphere would have changed even more if it had contained more volatile elements

2.The word constituent in the passage is closest in meaning to

A. source

B. equivalent

C. component

D. product

Volcanic outgassing continues to be the main process by which volatile materials are released from Earth—although it is now going on at a much slower rate. The main chemical constituent of volcanic gases (as much as 97 percent of volume) is water vapor, with varying amounts of nitrogen, carbon dioxide, and other gases. In fact, the total volume of volcanic gases released over the past 4 billion years or so is believed to account for the present composition of the atmosphere with one important exception: oxygen. Earth had virtually no oxygen in its atmosphere more than 4 billion years ago, but the atmosphere is now approximately 21 percent oxygen.

3.According to paragraph 2, the history of volcanic outgassing cannot explain which of the following

A. The lack of oxygen in the atmosphere 4 billion years ago

B. The amount of water vapor in the atmosphere today

C. The proportions of nitrogen and carbon dioxide in the atmosphere today

D. The present abundance of oxygen in the atmosphere

Traces of oxygen were probably generated in the early atmosphere by the breakdown of water molecules into oxygen and hydrogen by ultraviolet light (a process called photodissociation). Although this is an important process, it cannot begin to account for the present high levels of oxygen in the atmosphere. Almost all of the free oxygen now in the atmosphere originated through photosynthesis, the process whereby plants use light energy to induce carbon dioxide to react with water, producing carbohydrates and oxygen.

4.Paragraph 3 suggests which of the following about the process of photodissociation

A. It is more common today than it was in the early history of the atmosphere.

B. It is responsible for only a small amount of the oxygen in the atmosphere today.

C. It removes trace amounts of oxygen from the atmosphere.

D. It produces more free oxygen than photosynthesis does.

Oxygen is a very reactive chemical, so at first most of the free oxygen produced by photosynthesis was combined with iron in ocean water to form iron oxide-bearing minerals. The evidence of the gradual transition from oxygen-poor to oxygen-rich water is preserved in seafloor sediments. The minerals in seafloor sedimentary rocks that are more than about 2.5 billion years old contain reduced (oxygen-poor) iron compounds. In rocks that are less than 1.8 billion years old, oxidized (oxygen-rich) compounds predominate. The sediments that were precipitated during the transition contain alternating bands of red (oxidized iron) and black (reduced iron) minerals. These rocks are called banded-iron formations. Because ocean water is in constant contact with the atmosphere, and the two systems function together in a state of dynamic equilibrium, the transition from an oxygen-poor to an oxygen-rich atmosphere also must have occurred during this period.

5.According to paragraph 4, what can be learned from the type of iron compounds in seafloor rocks

A. How the process of photosynthesis has changed over time

B. The level of oxygen in the water at a certain time in history

C. How levels of iron in ocean water decreased over time

D. The overall mineral content of the ocean water

6.The word predominate in the passage is closest in meaning to

A. are in the majority

B. are present

C. are increasing

D. first appear

7.According to paragraph 4, banded-iron formations are found in what kind of rocks

A. Those that are more than 2.5 billion years old

B. Those that do not contain oxidized compounds

C. Those that are from a transitional period in terms of oxygen richness

D. Those that are less than 1.8 billion years old

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

原句：【Because ocean water is in constant contact with the atmosphere, and the two systems function together in a state of dynamic equilibrium, the transition from an oxygen-poor to an oxygen-rich atmosphere also must have occurred during this period.】

A. Since the oceans and the atmosphere function together, the atmosphere must have become oxygen rich during this period.

B. Because ocean water is in constant contact with the atmosphere, the two systems maintain a dynamic equilibrium.

C. The transition to an oxygen-rich atmosphere could not have happened without constant contact with the oceans.

D. Much of the oxygen in the oceans must have been pulled out of the atmosphere during this period.

Along with the buildup of molecular oxygen (O2) came an eventual increase in ozone (O3) levels in the atmosphere. Because ozone filters out harmful ultraviolet radiation, this made it possible for life to flourish in shallow water and finally on land. This critical state in the evolution of the atmosphere was reached between 1100 and 542 million years ago. Interestingly, the fossil record shows an explosion of life forms 542 million years ago.

9.According to paragraph 5, which of the following happened sometime between 1100 and 542 million years ago

A. A sudden explosion of life forms on land occurred together with a sharp decline of life in the water.

B. Ultraviolet radiation became more harmful to living organisms.

C. Molecular oxygen levels in the atmosphere stabilized, and ozone levels began to rise.

D. Ozone reduced ultraviolet radiation to a level acceptable for life on land.

Oxygen has continued to play a key role in the evolution and form of life. Over the last 200 million years, the concentration of oxygen has risen from 10 percent to as much as 25 percent of the atmosphere, before settling (probably not permanently) at its current value of 21 percent. This increase has benefited mammals, which are voracious oxygen consumers. Not only do we require oxygen to fuel our high-energy, warm-blooded metabolism, our unique reproductive system demands even more. An expectant mother’s used (venous) blood must still have enough oxygen in it to diffuse through the placenta into her unborn child’s bloodstream. It would be very difficult for any mammal species to survive in an atmosphere of only 10 percent oxygen.

10.According to paragraph 6, which of the following is NOT true of the connection between mammals and oxygen

A. Mammals are able to survive only because oxygen levels are relatively high.

B. Mammals first emerged when atmospheric oxygen levels reached 10 percent.

C. A mammal's unborn child receives oxygen through the mother's placenta.

D. Mammals use a lot of oxygen partly because they are warm-blooded.

Geologists cannot yet be certain why the atmospheric oxygen levels increased, but they have a hypothesis. First, photosynthesis is only one part of the oxygen cycle. The cycle is completed by decomposition, in which organic carbon combines with oxygen and forms carbon dioxide. But if organic matter is buried as sediment before it fully decomposes, its carbon is no longer available to react with the free oxygen. Thus there will be a net accumulation of carbon in sediments and of oxygen in the atmosphere.

11.The word gradual in the passage is closest in meaning to

A. crucial

B. original

C. beneficial

D. slow

12.The word diffuse in the passage is closest in meaning to

A. spread

B. break

C. squeeze

D. speed

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

The timing strongly suggests that atmospheric changes were responsible for this sudden increase in new life.

Where would the sentence best fit?

Along with the buildup of molecular oxygen (O2) came an eventual increase in ozone (O3) levels in the atmosphere.【A】Because ozone filters out harmful ultraviolet radiation, this made it possible for life to flourish in shallow water and finally on land.【B】This critical state in the evolution of the atmosphere was reached between 1100 and 542 million years ago.【C】 Interestingly, the fossil record shows an explosion of life forms 542 million years ago.【D】

14..Drag your choices to the spaces where they belong. To review the passage, click on View Text .

Answer Choices

A. Over the last 4 billion years, outgassing destroyed Earth's primary atmosphere of volatile elements and replaced it with nonvolatile materials including carbon dioxide.

B.The small amount of oxygen in Earth's early atmosphere was due to photodissociation and, later, photosynthesis created free oxygen.

C. Mammals could not have survived without an oxygen-rich atmosphere, and land-based life would not be possible without the ozone layer to filter solar radiation.

D. When oxygen levels in the ocean water reached a critical level about 542 million years ago, life emerged in the oceans, as shown by sedimentary rocks.

E. Although they are currently at about 21 percent, oxygen levels will probably not always remain this high.

F. The breakdown of organic matter removes free oxygen, but if this process is interrupted, extra oxygen may accumulate in the atmosphere.

Disease and History

Paragraph 1

Epidemiology is the study of the causes, distribution, and control of diseases in populations. Throughout history, there have been general trends in the relationship between diseases and the human species. Anthropologist George Armelagos has outlined these trends and refers to them as three “epidemiological transitions”.

Paragraph 2

For most of our species’ history, we lived in small, widely dispersed, nomadic groups. Our ancestors certainly experienced diseases of various sorts and would have come into contact with new diseases as they migrated to new environments. But infectious disease may not have had serious effects on large numbers of people or many different populations, since diseases would have had little chance of being passed on to many other humans.

1. The word “ dispersed “ in the passage is closest in meaning to

A. active

B. scattered

C. varied

D. linked

2. According to paragraph 2, why were infectious diseases not a serious problem for most of human history?

A. There were very few infectious diseases early in human history.

B. Population groups did not move around enough to be exposed to new diseases.

C. Many disease-causing organisms had features that made them difficult to pass on to other humans.

D. Population groups did not have enough contact with each other to spread diseases widely.

Paragraph 3

When some people began to settle down and produce their food through farming and animal domestication – starting about 10,000 years ago – the first epidemiological transition occurred. Infectious diseases increased in impact, as larger and denser concentrations of people provided greater opportunity for disease to be passed from host to host. Animal domestication may have brought people into contact with new diseases previously limited to other species. Working the soil would have exposed farmers to insects and other pathogens. Irrigation in some areas provided breeding places for mosquitoes, increasing the incidence of malaria and other mosquito-borne diseases. Sanitation problems caused by larger, more sedentary populations

would have helped transmit diseases in human waste, as would the use of animal dung for fertilizer. In addition, agriculture also led to a narrowing of food sources, as compared to the varied diets of hunters and gatherers. This could have resulted in nutritional deficiencies, moreover, the storage of food surpluses attracted new disease carriers such as insects and rats. Trade between settled communities helped spread diseases over large geographic areas, as in the case of the Black Death in Europe. Epidemics, in the sense of diseases that affect a large number of populations at the same time, were essentially nonexistent until the development of agricultural economies.

3. The word “ deficiencies “ in the passage is closest in meaning to

A. complications

B. illnesses

C. shortages

D. irregularities

4. According to paragraph 3, which of the following contributed to the rise of epidemics?

A. The development of more deadly forms of human disease

B. The spread of ineffective treatments for infectious disease

C. The spread of mosquito-borne diseases to other disease carriers

D. The practice of exchanging goods between settled areas

5. Which of the following is NOT mentioned in paragraph 3 as a reason that agriculture led to greater exposure to disease?

A. Irrigation created areas where disease-carrying mosquitoes could reproduce.

B. People increasingly came into contact with disease-carrying animals attracted to food storage areas.

C. Agricultural products spoiled more readily, leading to more frequent episodes of disease.

D. Farming exposed humans to disease-carrying insects in the soil.

6. According to paragraph 3, how did sanitation problems in early farming societies lead to the spread of infectious diseases?

A. Water used for irrigating crops was not always clean.

B. Larger populations were increasingly exposed to human and animal waste.

C. Farm products that spoiled in fields attracted insects and animals with diseases.

D. Lack of varied food sources occasionally forced communities to eat food that carried diseases.

Paragraph 4

Beginning in the last years of the nineteenth century and continuing into the twentieth, we experienced the second epidemiological transition. With modern medical science providing immunizations and antibiotics and with better public health measures and improved nutrition, many infectious diseases were brought under control, or even eliminated. In terms of what ailed and killed us, there was a shift to chronic diseases such as heart and lung diseases. The increase in many of these came not only from the fact that fewer people were dying from infectious disease and were living longer but also from the results of modern lifestyles in developed countries and among the upper classes of developing countries – a more sedentary life leading to less physical activity, more stress; environmental pollution, and high-fat diets. But at least, we thought, many of these problems were things we could potentially control; all those infectious epidemics were of the past.

7. According to paragraph 4, what is true about chronic diseases during second epidemiological transition?

A. They were common among people with high living standards.

B. They could be controlled with antibiotics.

C. They affected more people than infectious diseases did.

D. They led people to seek healthier lifestyles.

8. According to paragraph 4, which of the following best describes the second epidemiological transition?

A. Modern medicine made it possible for people to live longer even if they had an infectious disease.

B. Infectious diseases were harder to cure due to factors like stress and pollution.

C. New infectious diseases appeared as quickly as modern medical science was able to control old ones.

D. Chronic diseases replaced infectious diseases as the major cause of human sickness and death.

9. According to paragraph 4, all of the following likely contributed to chronic disease EXCEPT

A. longer life expectancies

B. decreased physical activity

C. higher rates of poverty

D. changes in diet

Paragraph 5

But on the heels of the second transition had come the third epidemiological transition, and we are in it now. New diseases are emerging, and old ones are returning. Both of these phenomena can be understood in terms of evolutionary theory.

10. The word “ emerging “ in the passage is closest in meaning to

A. appearing

B. spreading

C. becoming more serious

D. replacing others

Paragraph 6

The return of old diseases is the result of the fact that microorganisms are evolving species themselves. For example, new and serious antibiotic-resistant strains of tuberculosis have recently appeared. This evolution may have been encouraged by what some authorities consider our overuse of antibiotics, giving microorganisms a greater chance to evolve resistance by exposing them to a constant barrage of selective challenges. Some bacteria reproduce hourly,

and so the processes of genetic mutation and natural selection are speeded up in these species.

11. What can be inferred from the discussion of antibiotic-resistant strains of bacteria in paragraph 6?

A. Most microorganisms cannot survive multiple exposures to antibiotics.

B. Tuberculosis strains are much more likely to be antibiotic-resistant than are other microorganisms.

C. Bacteria that reproduce quickly are more likely to become resistant to antibiotics.

D. Exposing microorganisms to a constant barrage of antibiotics prevents them from evolving resistance.

Paragraph 7

Emerging diseases are also the result of human activity in the modern world, which brings more people into contact with more diseases, some of which were unheard of even a few decades ago. As people and their products become more mobile, and as our populations spread into previously little-inhabited areas, cutting down forests and otherwise altering ecological conditions, we contact other species that may carry diseases to which they are immune but that prove deadly to us.

12. 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. Humans contact other species during population growth into previously little-inhabited areas.

B. Species that carry diseases deadly to humans live in areas with small, mobile populations.

C. Increased mobility and population expansion into new areas exposes humans to new, deadly diseases carried by other species.

D. Some species that humans contact in little-inhabited areas are immune to diseases that are deadly to humans.

13.Look at the four squares [ ] that indicate where the following sentence could be added to the passage. Where would the sentence best fit?

But the denser populations of agricultural communities were only one of many factors contributing to the increased risk of disease.

When some people began to settle down and produce their food through farming and animal domestication – starting about 10,000 years ago – the first epidemiological transition occurred. 【A】Infectious diseases increased in impact, as larger and denser concentrations of people provided greater opportunity for disease to be passed from host to host.【B】Animal domestication may have brought people into contact with new diseases previously limited to other species. 【C】Working the soil would have exposed farmers to insects and other pathogens. Irrigation in some areas provided breeding places for mosquitoes, increasing the incidence of malaria and other mosquito-borne diseases.【D】

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

Throughout history, the impact of diseases on humans has changed as human societies have developed.

Answer choices

A. In early human history, nomadic groups started encountering diseases when they moved to new environments.

B. The transition to farming meant that humans had both more contact with one another and with other species that carried diseases, leading to disease epidemics.

C. Once advances in medical science resulted in better control or elimination of many infectious diseases, diseases resulting from the modern lifestyle became a major problem.

D. Infectious diseases have increased steadily in impact and severity from the agricultural revolution through today as a result of contact between human societies.

E. During the second epidemiological transition, better public health measures and improved nutrition helped control chronic diseases.

F. Humans today are at risk for contracting both new diseases and old diseases that have reemerged and, in some cases, have become resistant to antibiotics.

Artisans in Sixteenth-Century Europe

（16年6月25日和17年5月27日再次考到）

Paragraph 1

【For centuries European artisans had operated in small, autonomous handcraft businesses, but by the sixteenth century an evolving economic system—moving toward modern capitalism, with its free-market pricing, new organization of production, investments, and so on—had started to erode their stable and relatively prosperous position. 】What forces contributed to the decline of the artisan?

1. 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.

* In the sixteenth century, the European economy moved toward a system of free-market pricing, new ways of production, and investments.
* Before the sixteenth century, European makers of handcrafts enjoyed stability, autonomy, and relative prosperity.
* By the sixteenth century, the rise of capitalism began to weaken the autonomy and relative prosperity of European artisans.
* European artisans operated small, autonomous businesses before modern capitalism emerged in the sixteenth century.

Paragraph 2

In a few industries there appeared technological innovations that cost more to install and operate than artisans—even associations of artisans—could afford. For example, in iron production, such specialized equipment as blast furnaces, tilt hammers, wire-drawing machines, and stamping, rolling, and slitting mills became more familiar components of the industry. Thus the need for fixed capital (equipment and buildings used in production) soared. Besides these items, expensive in their own right, facilities for water, storage, and deliveries were needed. In addition, pig (raw) iron turned out by blast furnaces could not be forged until refined further in a new intermediate stage. In late sixteenth-century Antwerp, where a skilled worker earned 125 to 250 guilders a year, a large blast furnace alone cost 3,000 guilders, and other industrial equipment was equally or more expensive.

2. The word “Besides” in the passage is closet in meaning to

A. In addition to

B. More important than

C. Different from

D. Together with

3. According to paragraph 2, how did technological advances contribute to the economic decline of artisans?

A. Artisans had no place to store or use the new machines.

B. Goods produced by the new technology were cheaper than those produced by artisans.

C. The fixed costs of remaining in business became very high.

D. Artisans did not know how to use the new machines.

Paragraph 3

Raw materials, not equipment, constituted artisans’ major expense in most traders, however. Whereas in 1583 an Antwerp silk weaver paid 12 guilders for a loom (and made small payments over many years to pay off the debt for purchasing the loom), every six weeks he or she had to lay out 24 guilders for the 2 pounds of raw silk required to make a piece of cloth. Thus access to cheap and plentiful primary materials was a constant preoccupation for independent producers. Using local materials might allow even the poorest among them to avoid reliance on merchant suppliers. The loss of nearby sources could therefore be devastating. As silk cultivation waned around the Spanish cities of Cordoba and Toledo, weavers in these cities were forced to become employees of merchants who put out raw silk from Valencia and Murcia provinces. In the Dutch Republic, merchants who imported unprocessed salt from France, Portugal, and Spain gained control of the salt-refining industry once exploitation of local salt marshes was halted for fear that dikes (which held back the sea from the low-lying Dutch land) would be undermined.

4. The word “preoccupation” in the passage is closet in meaning to

* necessity
* concern
* struggle
* uncertainty

5. In paragraph 3, why does the author provide the information about an Antwerp silk weaver’s costs in 1583?

* To describe some typical costs in the silk-weaving industry
* To support the statement that artisans’ main expense was materials, not equipment
* To argue against the view that artisans did not have to borrow money to buy equipment
* To show that materials were cheap and plentiful for most artisans

6. What can be inferred from paragraph 3 about local materials?

* They were of higher quality than imported materials.
* They were usually more plentiful than imported materials.
* They remained available even after merchants began to control the industries.
* They tended to be more affordable than materials supplied by merchants.

7. According to paragraph 3, which of the following was sometimes an effect on artisans of the loss of local sources of their primary materials?

* They had to sell their products to merchants.
* They needed to take loans in order to buy the materials from merchants.
* They could no longer afford to be independent producers.
* They imported the materials from distant sources.

Paragraph 4

Credit was necessary for production but created additional vulnerabilities for artisans. Prices for industrial products lagged behind those of raw materials and foodstuffs, and this, coupled with rising taxes, made it difficult for many producers to repay their creditors. Periodic downturns, when food prices shot up and demand for manufactures fell off, drove them further into debt or even into bankruptcy, from which they might emerge only by agreeing to sell their products exclusively to merchants or fellow artisans who extended them loans. Frequent enough during periods of growth, such credit crises became deeper and lasted longer after about 1570, as did war-related disruptions of raw-material supplies and markets.

8. The phrase “coupled with” in the passage is closet in meaning to

* caused by
* compared with
* affected by
* combined with

9. According to paragraph 4, all of the following caused economic difficulties for artisans EXCEPT

* decreasing availability of credit
* decreased demand for manufactured goods
* increased taxes
* problems caused by wars

Paragraph 5

Artisans’ autonomy was imperiled, too, by restrictions on their access to markets. During the sixteenth century, a situation like this often resulted from the concentration of export trade in a few great storage and distribution centers. 【The disappearance of regional markets where weavers in Flanders (what is now northern Belgium) had previously bought flax and sold linen left them at the mercy of big-city middlemen, who quickly turned them into domestic workers. In a similar fashion, formerly independent producers in southern Wiltshire in England, who had bought yarn from spinners or local brokers and sold their cloth to merchants in nearby Salisbury, became subject to London merchants who monopolized both wool supplies and woolens exports.

10. The word “autonomy” in the passage is closet in meaning to

* independence
* influence
* ability to make a living
* ability to adapt

11. Paragraph 5 supports which of the following statements about artisans during the sixteenth century?

* They had difficulty transporting their goods to the best markets.
* They were at a disadvantage because the concentration of supplies and exports was in the hands of big-city merchants.
* They received higher wages as employees of big-city merchants.
* They were able to obtain raw materials from local merchants.

Paragraph 6

With good reason, finally, urban artisans feared the growth of industries in the countryside. For one thing, they worried that the spread of village crafts would reduce their supply of raw materials, driving up prices. City producers also knew that rural locations enjoyed lower living costs, wages, and taxes, and often employed fewer or simplified processes. These advantages became a major preoccupation as competition intensified in the 1570s and 1580s

12. All of the following are identified in paragraph 6 as concerns that urban artisans had about the growth of industry in the countryside EXCEPT

* a decrease in the supply of raw materials
* a cheaper cost of living in the countryside
* a more manageable level of competition
* less complex production processes in the countryside

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

This was possible because when transportation costs were low, the price of raw materials was generally also low.

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

Paragraph 3

Raw materials, not equipment, constituted artisans’ major expense in most traders, however. ■Whereas in 1583 an Antwerp silk weaver paid 12 guilders for a loom (and made small payments over many years to pay off the debt for purchasing the loom), every six weeks he or she had to lay out 24 guilders for the 2 pounds of raw silk required to make a piece of cloth. ■Thus access to cheap and plentiful primary materials was a constant preoccupation for independent producers. ■Using local materials might allow even the poorest among them to avoid reliance on merchant suppliers. ■The loss of nearby sources could therefore be devastating. As silk cultivation waned around the Spanish cities of Cordoba and Toledo, weavers in these cities were forced to become employees of merchants who put out raw silk from Valencia and Murcia provinces. In the Dutch Republic, merchants who imported unprocessed salt from France, Portugal, and Spain gained control of the salt-refining industry once exploitation of local salt marshes was halted for fear that dikes (which held back the sea from the low-lying Dutch land) would be undermined.

14. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some answer choices 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 choices to the spaces where they belong. To review the passage, click on View Text.

European artisans experienced a decline during the sixteenth century as result of a number of developments.

●

●

●

Answer choices

A. Artisans’ ability to earn profits was restricted by their dependence on creditors, to whom they were forced to sell their goods, and by competition from rural areas.

B. As industries came under the control of merchants, artisans lost access to cheap raw materials, and they had to borrow money to buy the materials they needed from merchant suppliers.

C. In the new industrial system from which skilled artisans were progressively excluded, the quality of manufactured items gradually declined.

D. Advances in technology in some industries increased the cost of the equipment, buildings, and facilities that artisans needed for producing and selling their goods.

E. Iron production in the sixteenth century depended on new inventions such as blast furnaces, tilt hammers, wire-drawing machines, and stamping, rolling, and silting mills.

F. The rising prices of food and other necessities often left artisans without enough money to pay their taxes and other business expenses.

Earth’s Atmosphere

Earth’s Atmosphere答案：A C D B B; A C A D B; D A D 236

Disease and History

Disease and History答案：B D C D C B A D C A C C D BCF

Artisans in Sixteenth-Century Europe答案：CACBB, DCDAA,BCD, 124

第29套

Tree Species Identification in Tropical Rain Forests

Identifying tree species in tropical rain forests may be harder than you think. Plant species identification can be difficult for all kinds of reasons even identification of trees, which are big and conspicuous. For example, for some willow trees, both leaves and flowers may be needed for identification, but the two may not be present at the same time. Yet whatever problems may confront us in temperate climates, we can be sure that the tropics will pose far worse difficulties.

1.The word conspicuous in the passage is closest in meaning to

A. close to each other

B. common

C. easily noticed

D. solitary

1. ln paragraph 1, why does the author discuss willow trees

A. To provide an example of a tree that is unusually large

B. To explain the process of tree species identification

C. To support the idea that tropical trees can be more difficult to identify than temperate trees

D. To demonstrate one reason why it can be problematic to determine what species a tree belongs to

In tropical rain forests，the flowers of a given tree species are typically not in bloom and so cannot be observed. In seasonal rain forests (with a distinct wet season and a distinct dry season) , many trees adjust their flowering to the rains, so flowering is to some extent predictable. But much rain forest (as in much of the Amazon region) is nonseasonal, and trees may flower at any time. To be sure, different trees of the same species generally flower simultaneously, for if they did not, they could not pollinate each other. They must be responding to signals from the environment at large, or else (or in addition) they must be communicating with one another. But what those signals are is unknown, at least to us. To the human observer，the flowering seems random. In any case, in a tropical forest (at least in a secondary forest, which is forest that is regrowing after previous harvesting or clearance), the trees grow very close together，and most are remarkably thin，like poles，and grow straight up and disappear into the gloom, twenty meters overhead . Even if there are flowers，you would not necessarily see them .

3. Paragraph 2 implies which of the following about tree flowering in seasonal rainforests

A. It is less predictable than tree flowering in tropical rain forests

B. It results from an unknown means of communication between the individual trees of each species.

C. It is more useful to researchers trying to identify tree species than is the tree flowering in tropical rain forests.

D. It follows the same pattern that tree flowering follows in a tropical secondary forest.

4. In paragraph 2，why does the author discuss pollination

A. To provide evidence that in many tropical tree species flowering is at least somewhat predictable

B. To help explain why flowers on trees in tropical rainforests can be absent most of the time

C. To help explain why different trees of the same species bloom at the same time

D. To suggest one reason why trees might benefit from adjusting their flowering to the rains

5. According to paragraph 2，what is true about much of the Amazon region

A. It has tree species that adjust their pollination to rainfall.

B. It has not yet been harvested or cleared.

C. It has trees that typically flower during periods of rain.

D. It does not have separate wet and dry seasons.

The leaves may not be accommodating either, at least when viewed from the ground. Rain-forest trees all face the same kinds of conditions and have adapted in the same general kinds of way. Rain forests are wet by definition. But in some there is a dry season, and even when there is not, it doesn't rain all the time. Thus the forest floor may be moist，but the topmost leaves of the canopy are far above it and are exposed to the fiercest sun. So the uppermost leaves must resist desiccation (drying out). Yet from time to time, and in due season every day, they must also endure tremendous downpours. Leaves that can cope with such contrasts tend to be thick and leathery (to resist drought), oval in shape, and have a protection at the end known as a drip tip to let surplus rain run off the leaf. Many hundreds of trees from dozens of only distantly related families have leaves of this general type. But even if you can distinguish individual leaves, it is hard to be certain if they belong to the tree you are interested in or to the one next to it or to some epiphyte (a plant that grows on other plants) or liana (vine) slung over its branches. Often, in short, researchers must base their identification of a tree on the bark of its trunk. The trunks of tropical trees are sometimes highly characteristic, being deeply furrowed or twisted, but in most species the bark is simply smooth and gray，dappled with lichen and moss.

6. The word endure in the passage is closest in meaning to withstand

A. benefit from

B. avoid

C. respond to

D. withstand

7. The word surplus in the passage is closest in meaning to

A. heavy

B. steady

C. sudden

D. extra

8. Paragraph 3 offers an explanation for each of the following characteristics of rain-forest tree leaves EXCEPT

A. their having a drip-tip at the end

B. their thickness

C. their leathery texture

D. their oval shape

9. According to paragraph 3, what is one reason that looking at leaves may not be very useful when trying to determine the species of a rain-forest tree

A. Leaves of rainforest trees often look very different when they are wet than when they are dry.

B. Leaves that are exposed to the hot tropical sun dry out and lose their distinguishing characteristics.

C. It can be hard to determine whether a leaf has a drip tip or not.

D. It can be hard to determine whether a leaf belongs to a tree or to another plant growing on the tree.

10. According to paragraph 3, one reason that researchers in tropical forests must often rely on a tree’s bark for species identification is that

A. distinct species of tree often have similar kinds of lichens and moss growing on their trunks

B. the leaves of many different tropical tree species are very similar to each other in appearance

C. many rainforest trees have neither epiphytes nor lianas

D. the bark of the trees is less affected by changes in light and moisture than leaves are

【In a temperate forest you can be fairly sure that any one tree is the same species as the one next to it or, at least，it will be one of a list that is unlikely to exceed more than half a dozen (oak with ash in much of Britain; lodgepole pine with aspen in the northernmost reaches of North America ; alder, Scottish pine, and spruce in the Baltic ; and so on).】 But in the Amazon in particular，you can be fairly sure that any one tree is not the same species as the one next to it. Often there is a third of a mile between any two trees of the same species, and there can be up to 120 different species of trees in any one acre . So the task, often, is to identify an individual tree that may be not much thicker than your arm from the appearance of its bark, out of a total list of several hundred (or thousand) possibilities which may well include some that have not been described before, so that there is nothing to refer back to.

1. 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

【In a temperate forest you can be fairly sure that any one tree is the same species as the one next to it or, at least，it will be one of a list that is unlikely to exceed more than half a dozen (oak with ash in much of Britain; lodgepole pine with aspen in the northernmost reaches of North America ; alder, Scottish pine, and spruce in the Baltic ; and so on).】

A. Different temperate forests contain different combinations of tree species but in all such forests, all the trees of any one species are likely to be found close together.

B. Temperate forests rarely contain more than about six species of tree, and trees growing next to each other tend to be of the same species.

C. You can easily make a list of all the tree species that are likely to be found in temperate forests, and if one tree is not on that list，you can be confident that the tree next to it will be.

D. Forests in Britain, in North America, and in the Baltic generally contain no more than half a dozen tree species, and all these species can be found on lists.

1. The word task in the passage is closest in meaning to

A. difficulty

B. job

C. strategy

D. requirement

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

As a result, the topmost level of a rainforest can be desert-like.

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

The leaves may not be accommodating either, at least when viewed from the ground. Rain-forest trees all face the same kinds of conditions and have adapted in the same general kinds of way. Rain forests are wet by definition. 【A】But in some there is a dry season, and even when there is not, it doesn't rain all the time. 【B】Thus the forest floor may be moist, but the topmost leaves of the canopy are far above it and are exposed to the fiercest sun.【C】So the uppermost leaves must resist desiccation (drying out).【D】Yet from time to time, and in due season every day, they must also endure tremendous downpours ....

14. Drag your choices to the spaces where they belong. To review the passage，click on View Text Answer Choices

A. In tropical forests different trees of the same species flower at different times so they are not able to pollinate one another.

B. Flowering in tropical trees is often unpredictable and when it occurs, the flowers themselves tend to be too high up to be clearly visible.

C. Many tropical tree species have leaves that look very similar from the ground, and because the trees often grow close together，correctly matching a leaf with a particular tree can be difficult.

D. The leaves and bark of a single rain forest tree are often very different at different heights due to the need to adapt to different conditions, which adds to the difficulty of species identification .

E. Because trees in rain forests are spaced closely together，it is easy to tell whether neighboring plants are the same species, but that is not much help in determining which species they are.

F. Often, a rain-forest tree has to be identified by its bark, but trees of like species are widely scattered, the list of possible species is very long, and many have similar-looking bark.

The Extinction of the Dinosaurs

Paragraph 1: Geologists define the boundary between sediment layers of the Cretaceous period (144-65million years ago) and the Paleocene period (65-55 million years ago) in part by the types and amounts of rocks and fossils they contain or lack. Before the limit of 65 million years ago，marine strata are rich in calcium carbonate due to accumulations of fossils of microscopic algae deposited on the sea floor. Above the 65-million-year limit，sea-floor sediments contain much less calcium carbonate, and fossils of several families of mollusks are no longer found. In continental sediments, dinosaur fossils, though frequent before 65 million years ago, are totally absent. By contrast, new families of mammals appear, including large mammals for the first time.

1. .According to paragraph 1，which of the following is true of Paleocene sediments

○ They lack fossils from some families of mammals found in Cretaceous sediments.

○ They contain fossils of dinosaurs.

○ They contain fossils of some animals that did not exist during the Cretaceous.

○ They contain fossils of more kinds of mollusks than are found in Cretaceous sediments.

Paragraph 2: Scientists wondered for many years about what could have caused the dinosaurs' rapid disappearance at the end of the Cretaceous period, coming up with a great variety of theories and scenarios. For some, it could have been due to unfavorable genetic changes triggered by a dramatic increase by a factor of 10，100，1，000 in cosmic-ray particles reaching the Earth after a supernova explosion somewhere in the neighborhood of the solar system. For these high-energy particles to affect life，they would have to get through the protective barrier of the Earth's magnetosphere, the region of the upper atmosphere controlled by Earth's magnetic field. That could have happened if the cloud of particles from the supernova explosion reached the Earth during a period when the magnetosphere was weakened, something that may happen when the Earth's magnetic field changes direction. And we know that the magnetic north and south poles of the Earth switch on the average twice every million years. However, this is not the only possible explanation for dinosaur destruction .

2..The word unfavorable in the passage is closest in meaning to

○ Unusual

○ Disadvantageous

○ Sudden

○ major

3..The word triggered in the passage is closest in meaning to

○ Initiated

○ intensified

○ followed

○ aided

4. Why does the author include the information that the magnetic north and south poles of the Earth switch on the average twice every million years

○ To provide evidence showing that Earth's protective barrier is difficult to get through

○ To show that it is reasonable to think that particles from a supernova explosion could have reached Earth

○ To explain why some scientists believe a supernova explosion may have occurred near our solar system

○ To help explain why some scientists have rejected the theory presented in Paragraph 2

5. According to the theory discussed in paragraph 2，a weakening of Earth's magnetosphere may have

○ caused a supernova to explode near our solar system

○ allowed gene-altering particles to reach Earth's surface

○ forced Earth's magnetic field to change direction

○ allowed clouds of protective particles to escape from Earth's upper atmosphere

Paragraph 3：Other theories have raised the possibility of strong climate changes in the tropics (but they then must be explained) . Certainly，if climate changes，the changed distributions of temperature and rainfall modify the conditions that favor one ecosystem over another. The extinction of a particular family，genus，or species may result from a complicated chain of indirect causes and effects. Over thirty years ago, scientist Carl Sagan quoted one suggestion that the demise of the dinosaurs resulted from the disappearance of a species of fern plant that was important for dinosaur digestion. Other theories involved a worldwide cold wave following the spread of a layer of cold but not very salty water in the world's oceans, which floated on the surface because，with its low salinity，the water was less dense.

6..AII of the following are mentioned in paragraph 3 as possible causes for the extinction of the dinosaurs EXCEPT

○ a change in the diet of dinosaurs

○ a change in the climate of the tropics

○ a decrease in global temperatures

○ a decrease in deep ocean salinity

7..ln paragraph 3，why does the author include the quotation by Carl Sagan

○ To explain the connection between dinosaur extinction and the extinction of other animal species

○ To support the claim about species extinction being due to indirect causes and effects

○ To show that scientists have revised their ideas greatly in the last thirty years

○ To identify the differences between the various theories for the extinction of dinosaurs

Paragraph 4：Proponents of another theory that remains under consideration today postulate that the extinction of the dinosaurs corresponds to a period of intense volcanic activity. It's not a question of just one or even of a thousand eruptions comparable to the explosion of Krakatoa in 1883，one of the largest volcanic events in modern times, but rather of a prolonged period of activity. On the Deccan plateau in India，basalt (volcanic) rocks cover more than 500，000 square kilometers (nearly 200，000 square miles)，and correspond to massive lava outflows occurring precisely at the end of the Cretaceous. This sort of outflow could correspond to volcanic activity similar to the activity that drives sea-floor spreading, with lava emerging from elongated fractures in the crust rather than from craters.

8..According to paragraph 4，what was one unusual aspect of the volcanic activity at the end of the Cretaceous

○ Some explosions were much larger than Krakatoa.

○ Eruptions occurred over a long period of time .

○ Active volcanoes were sometimes separated by many kilometers.

○ There were active volcanoes in the sea as well as on land.

9..Which of the following is presented in paragraph 4 as evidence that intense volcanic activity occurred at about the time that the dinosaurs became extinct

○ The size of the volcanic craters on the Deccan plateau

○ An increase in sea-floor spreading

○ The formation in India of large amounts of a type of rock associated with volcanoes

○ The occurrence of a thousand or more volcanic explosions the size of Krakatoa

Paragraph 5：The volcanic convulsion that buried the Deccan plateau in lava must also have changed the composition of the atmosphere and severely affected climate. Initially，there must have been strong sudden cooling resulting from the blocking of sunlight by sulfate aerosol veils in the stratosphere (part of the Earth's atmosphere). If strong cooling lasted a year after the formation of the aerosols, it would have been the death of tropical species unable to adapt to such a volcanic winter. ■However，a long period of strong volcanic activity (again，remember thousands of Krakatoas) would at the same time have added a substantial amount of carbon dioxide to the atmosphere, reinforcing the greenhouse effect. ■This would gradually warm things up，ending the extended cold snap and producing global warming together with geographic shifts of humid and arid (dry) zones.■ Certainly things would change to upset living conditions, leading to the extinction of some species while others would profit，if only from the disappearance of predators.■

10. The word severely in the passage is closest in meaning to

○ certainly

○ consequently

○ greatly

○ Permanently

1. .The word reinforcing in the passage is closest in meaning to

○ making possible

○ spreading

○ introducing

○ strengthening

12..According to paragraph 5，all of the following are theorized to have occurred as a result of volcanic activity EXCEPT

○ a decrease in the amount of sunlight reaching Earth's surface

○ a reduction in the number of sulfate aerosol veils in the stratosphere

○ increased dryness in some areas that were once more humid

○ changes in the atmosphere's composition resulting in an increase in temperature

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

Thus, ecosystems following periods of extensive volcanic activity necessarily had different combinations of species than earlier ecosystems did.

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

Paragraph 5：The volcanic convulsion that buried the Deccan plateau in lava must also have changed the composition of the atmosphere and severely affected climate. Initially，there must have been strong sudden cooling resulting from the blocking of sunlight by sulfate aerosol veils in the stratosphere (part of the Earth's atmosphere). If strong cooling lasted a year after the formation of the aerosols, it would have been the death of tropical species unable to adapt to such a volcanic winter. ■However，a long period of strong volcanic activity (again，remember thousands of Krakatoas) would at the same time have added a substantial amount of carbon dioxide to the atmosphere, reinforcing the greenhouse effect. ■This would gradually warm things up，ending the extended cold snap and producing global warming together with geographic shifts of humid and arid (dry) zones.■ Certainly things would change to upset living conditions, leading to the extinction of some species while others would profit, if only from the disappearance of predators.■

14.. Drag your choices to the spaces where they belong. To review the passage，click on View Text

Answer Choices

○ Cosmic rays from a nearby supernova explosion may have penetrated Earth's atmosphere，causing genetic changes that dinosaur populations could not survive.

○ Climate changes in the tropics may have set off a chain of indirect effects that negatively affected the ecosystems in which dinosaurs lived.

○ The spread of lava over large parts of previously favored habitats such as the Deccan Plateau may have made these favored areas uninhabitable for many years.

○ Although the volcanic winter resulting from the formation of sulfate aerosols eventually ended，temperatures may have remained below levels required by dinosaurs to survive.

○ Temperature changes and geographic shifts in climate zones due to the atmospheric effects of volcanic activity may have been significant enough to cause extinction.

○ To be convincing, theories about what caused dinosaurs to become extinct must be able to explain the disappearance of other predators in the food chain at the same time

Tree Species Identification in Tropical Rain Forests

Tree Species Identification in Tropical Rain Forests答案：C D C C D; D D D D B; B B C CEF

The Extinction of the Dinosaurs

The Extinction of the Dinosaurs答案：C B A B B;D B B C C; D B D ABE