

# 英 語

**問題 I** 次の英文を読み、以下の設問に答えなさい。

Over time species change as animals grow larger or smaller, heavier or lighter to suit the environmental conditions in which they live. This occurs continually as traits that appear due to random mutation prove to give an advantage to certain individuals. Such animals and indeed, plants, <sup>(1)</sup> if better able to sustain themselves, will reproduce more and pass their advantages on to their <sup>(2)</sup> offspring. This is the normal and continual process of evolution.

At times, this slow and continual process speeds up for a variety of reasons. For example, environmental factors may <sup>(3)</sup> cause genetic mutation at a higher rate. Genetic mutation occurs when organisms are exposed to outside influences that challenge the organism's ability to survive. Two common factors are exposure to radiation and exposure to chemicals. <sup>(4)</sup> Neither is a constant. Exposure to radiation may increase when the Earth is bombarded with more solar or deep space radiation due to solar flares or when the Earth's magnetic shield weakens. Variations in solar activity happen frequently over a cycle of just eleven years. The magnetic shield weakens and reverses on a much longer cycle of about 450,000 years. Exposure to <sup>(5)</sup> massive amounts of chemicals can occur when a major climate event happens. A very large-scale volcanic eruption can cause changes to the atmosphere and to the continental-level environment which may <sup>(6)</sup> endanger the survival of species. Deep space radiation from relatively nearby supernova happens irregularly, but it is one of the greatest causes of mass extinctions. Looking at the paleontological record, five mass extinction events have occurred over the last 500 million years.

Let us take now the most famous case of mass extinction, when the

dinosaurs disappeared 65 million years ago, at the end of the Cretaceous Period. There are various theories about what caused their extinction and different causes would have (7) progressed at different rates. One popular theory suggests the Earth was (8) struck by a huge meteor which produced rapid climate change. The dinosaurs could not adapt to the dust-filled, colder climate and died out over a short period of time. Another theory is that a slower change of the food supply, possibly combined with the action of diseases preying upon dinosaurs, caused them to die out over a rather longer period of time. In either event, the extinction of the dinosaurs was relatively quick and provided opportunities for other animals, such as mammals and birds, to occupy environmental niches dinosaurs had once dominated. This mass extinction is the best known one, but it was hardly the greatest mass extinction.

An even more extensive mass extinction occurred 500 million years ago at the start of the Cambrian Era. Life at that time was entirely marine and trilobites were the dominant species. Either because of cooling or because of (9) depletion of oxygen from the atmosphere, the trilobites died out. Other, , mass extinctions also occurred in the Cambrian Era and over time life expanded onto land and evolution produced more adaptive species.

Rapid change in evolution may be viewed as a response to an environmental opportunity. When one species goes extinct, its food source and habitat provides  in which another species may quickly prosper and grow. Food sources may grow (12) more abundant or the environment less challenging as climates heat up or cool off. Changes in rainfall make environments more or less challenging. Various factors change regional environments over long periods of time. Because of this, species may have many opportunities to extend their range and increase their numbers. Something as simple as the introduction of a species to a new continent may

cause massive population growth and endanger competing native species.

The dynamics of evolution show that the history of the planet is marked by long periods with little evolutionary change and periodic times when evolution progresses quickly. The outside trigger changes from time to time, but the response is always the same: certain species possess traits that help them survive under the new conditions and they expand and evolve quickly when opportunity <sup>(13)</sup> presents itself.

— Adapted from an article in *Improving Skills for the TOEFL iBT Test*.

1. 下線部(1)の本文中での意味に最も近いものを、次の①～④から1つ選び、その番号を解答用紙の  にマークしなさい。

- ① provided that they have the means to maintain their lives
- ② even if they are able to live much more comfortably
- ③ in the case that animals are more likely to live longer than plants
- ④ if they can improve their lives through sustenance

2. 下線部(2)の本文中での意味に最も近いものを、次の①～④から1つ選び、その番号を解答用紙の  にマークしなさい。

- ① ancestors
- ② descendants
- ③ generations
- ④ relatives

3. 下線部(3)の本文中での意味に最も近いものを、次の①～④から1つ選び、その番号を解答用紙の  にマークしなさい。

- ① expand      ② hinder      ③ proliferate      ④ trigger

4. 下線部(4)の本文中での意味に最も近いものを、次の①～④から1つ選び、その番号を解答用紙の  にマークしなさい。

- ① Both exposure to radiation and exposure to chemicals often vary.  
② While exposure to radiation is continuous, exposure to chemicals is not.  
③ Exposure to radiation is more stable than exposure to chemicals.  
④ Exposure to radiation is as untenable as exposure to chemicals.

5. 下線部(5)の本文中での意味に最も近いものを、次の①～④から1つ選び、解答用紙の  にマークしなさい。

- ① adequate      ② enormous      ③ sufficient      ④ trivial

6. 下線部(6)の本文中での意味に最も近いものを、次の①～④から1つ選び、解答用紙の  にマークしなさい。

- ① damage      ② eradicate      ③ obstruct      ④ threaten

7. 下線部(7)の本文中での意味に最も近いものを、次の①～④から1つ選び、  
解答用紙の  にマークしなさい。

- ① advanced      ② exceeded      ③ promoted      ④ preceded

8. 下線部(8)の本文中での意味に最も近いものを、次の①～④から1つ選び、  
解答用紙の  にマークしなさい。

- ① attacked      ② crushed      ③ impacted      ④ intruded

9. 下線部(9)の本文中での意味に最も近いものを、次の①～④から1つ選び、  
その番号を解答用紙の  にマークしなさい。

- ① gradual reduction      ② sudden emergence  
③ unusual transformation      ④ significant decrease

10. 空所  に入れるのに最も適切なものを、次の①～④から1つ選び、  
その番号を解答用紙の  にマークしなさい。

- ① litter      ② lesser      ③ less      ④ least

11. 空所  に入れるのに最も適切なものを、次の①～④から1つ選び、  
その番号を解答用紙の  にマークしなさい。

- ① an atmosphere      ② a mutation  
③ a niche      ④ a trait



15. 本文の内容と一致するものを次の①～④から1つ選び、その番号を解答用紙の  にマークしなさい。

- ① During the Earth's long history, there have been several periods where evolutionary changes proceeded rapidly.
- ② The increase in rainfall in a particular region always leads to adverse conditions to species living there.
- ③ When a species is brought to a new continent, all the species on the continent will be put in danger of extinction.
- ④ Even when an evolutionary change starts, it takes a very long time before it completes.

**問題Ⅱ** 次の各英文の空所に入れるのに最も適切なものを、①～④から1つ選び、その番号を解答用紙の  ～  にそれぞれマークしなさい。

16. Our day-to-day lives are regulated by the use of watches and clocks. However, these devices that tell us when class starts or work has finished are human .

- ① institutions                      ② interactions  
③ interruptions                      ④ inventions

17.  are taxes that some nations put on things brought into their land to be sold there.

- ① Tariffs              ② Terms              ③ Treasures      ④ Tuitions

18. Humans have a very long period of . During this time, as we go from childhood to adulthood, the human brain continues to develop.

- ① adoration                      ② adolescence  
③ adherence                      ④ abduction

19. Although thought and action tend to be considered two separate things, some researchers have suggested that it is not necessarily the .

- ① case              ② true              ③ right              ④ same

20. Wind is caused by the sun heating various parts of our spinning planet unevenly: land and water heat at different rates, as do mountains and deserts, the  and the equator.

- ① holes      ② moles      ③ poles      ④ roles

**問題Ⅲ** 次の各英文の空所に入れるのに最も適切なものを、①～④から1つ選び、その番号を解答用紙の  ～  にそれぞれマークしなさい。

21. While animals may not pay much attention to the color of food, for humans it is  great importance.

- ① in                      ② of                      ③ on                      ④ with

22. Documentaries have been  since the dawn of film, more than 120 years ago.

- ① around                ② beyond                ③ over                    ④ up

23. The population of the world  from around 7.3 billion today to more than 9 billion by 2050.

- ① expected to be grown  
 ② is expecting growing  
 ③ is expected to grow  
 ④ has been expecting to growing

24. According to a projection by the government, Japan  as much as 40% of its workers by 2065, at the current birth rate.

- ① will be lost                                      ② will have lost  
 ③ would have losing                            ④ would be losing

25. When a former student recently asked me to write a recommendation letter for her, I  an unexpected dilemma.

- ① have found me faced                      ② found herself faced with  
③ was found facing with                    ④ found myself facing

26. The promise of self-driving cars can be attractive. Imagine taking a nap or watching a movie in a comfortable armchair  being shuttled safely home after a long day at work.

- ① while                      ② that has                      ③ without                      ④ despite

27. Without a biological clock ensuring that each of our cells is getting the material it needs at the right time and place, our biological demands  impossible to fulfill.

- ① are    ② would be  
③ had been                                      ④ could have been

28. I believe that happy children are  the freedom to express themselves.

- ① ones that                                      ② the ones giving  
③ those that given                              ④ those given

29. If there is one fact about memory that all of us know, it is   
we do not remember everything.

- ① what            ② which            ③ that            ④ because

30. The foundation stone of the Sagrada Família church in Barcelona  
was  in 1882.

- ① lied            ② laid            ③ lay            ④ lain

**問題IV** 次の各英文の下線部の意味に最も近いものを、①～④から1つ選び、その番号を解答用紙の  ～  にそれぞれマークしなさい。

31.

Senior citizens have to have savings in the bank or other retirement plans to make ends meet.

- ① breathe their last
- ② see their relatives before death
- ③ live within their means
- ④ earn much more money

32.

She continued using her former surname to head off any confusion after divorce.

- ① avoid
- ② cause
- ③ fear
- ④ worry

33.

He will surely hit upon a good solution to the problem.

- ① come close to
- ② come down with
- ③ come away with
- ④ come up with

34.

We must cut down our monthly expenses.

- ① induce
- ② produce
- ③ reduce
- ④ seduce

35. 

35
----

When she heard the news, she passed out.

- |                    |                      |
|--------------------|----------------------|
| ① jumped for joy   | ② lost consciousness |
| ③ was disappointed | ④ became excited     |

**問題V** 次の各英文中で文法・語法的に誤りのある個所を①～④から1つ選び、その番号を解答用紙の  ～  にそれぞれマークしなさい。

36.

Recent studies in the US ① suggest that the nation ② is experiencing a dramatic ③ increase in the percentage of school-age children who ④ are extreme overweight.

37.

The domestic cat ① is the most popular pet in the world today. ② Across the globe, domestic ③ cat outnumber “man’s best friend,” the dog, ④ by as many as three to one.

38.

① If you work in an office, you ② may have heard about “walking meetings,” and maybe have ③ even participated in ④ a little.

39.

Most Japanese ① students who study ② at abroad are able ③ to effectively adjust to the local culture and ④ broaden their worldview.

40.

Human language ① differs from animal “language” not only in the unique way ② in that it uses sound, the substance of expression, ③ but also in the large amount of variation in content ④ that its formal structure permits.