

2026（令和8）年度

1日 [60分] \*

## 外国語（英語）

### 注 意

1. 監督者の指示があるまで問題を見ないこと。
2. 声を出して問題を読まないこと。
3. 問題は23ページ、**1** から **5** までである。
4. 問題や解答用紙に落丁、乱丁、汚損あるいは印刷不鮮明の箇所があれば、手をあげて監督者に申し出ること。
5. 解答は必ず**鉛筆を使用し、解答用紙に記入すること。**
6. 解答は解答用紙の解答欄の記号にマークすること。
7. 訂正箇所は、消しゴムで**きれいに消すこと。**
8. 解答欄には、関係のない符号や文字あるいはメモなどを記入しないこと。
9. 解答用紙を**折ったり汚したりしないこと。**
10. 問題用紙は持ち帰ること。









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語句を並べ替えてもっとも自然な英文を完成させ、2番目と5番目に入れるものの記号を書きなさい。ただし、文頭に来る語も小文字にしてある。[各2点]

1. Kenta ( 1 )( 2 )( 3 )( 4 )( 5 )( 6 ) at the station on his way to work.

- A. tourists                      B. to                              C. by  
D. spoken                        E. foreign                        F. was

2. Janice silently ( 1 )( 2 )( 3 ) floor ( 4 )( 5 ) ( 6 ) against the wall.

- A. with                            B. back                            C. the  
D. sat                              E. her                              F. on

3. Sonia became a doctor ( 1 )( 2 )( 3 )( 4 ) her parents ( 5 )( 6 ) herself.

- A. the intention                B. than                            C. of  
D. rather                        E. with                            F. pleasing

4. It ( 1 )( 2 )( 3 )( 4 )( 5 )( 6 ) start over, as long as you finish the project.

- A. times                        B. how                            C. matter  
D. doesn't                      E. many                        F. you

5. Oysters ( 1 )( 2 )( 3 )( 4 ) be boiled for five minutes ( 5 )( 6 ).

- A. more                        B. these                        C. from  
D. waters                      E. should                        F. or

6. Dr. Asher has been studying ( 1 )( 2 )( 3 )( 4 )  
( 5 )( 6 ) in the wild for five years.

- A. communicate      B. chimpanzees      C. other  
D. with                E. how                F. each

7. You ( 1 )( 2 )( 3 )( 4 ) of making mistakes as it's  
part ( 5 )( 6 ) human.

- A. of                    B. be                    C. being  
D. not                  E. afraid                F. need

8. In the kitchen sink, ( 1 )( 2 ) some dishes ( 3 )( 4 )  
( 5 )( 6 ).

- A. left                  B. undone                C. had  
D. there                E. were                F. I

9. Alister was almost ( 1 )( 2 )( 3 )( 4 )( 5 )( 6 )  
at midnight.

- A. asleep                B. the call                C. he  
D. when                E. got                    F. falling

10. The mayor was ( 1 )( 2 )( 3 )( 4 ) a role model  
( 5 )( 6 ) people.

- A. by                    B. looked                C. as  
D. many                E. up                    F. to

- 3 次の文章を筋の通ったものにするために、枠内にあるA～Dからもっとも適切なものを選び ( ) の中に入れなさい。( \*印の語 (句) は注を参考にする ) [各3点]

(A)

- A. This part of the brain is important because it handles more complex thinking related to planning, solving problems, and making decisions.
- B. The human brain is also continually changing during that time.
- C. Later in life, most people experience a weakening of their mental powers as the brain begins to shrink in size.
- D. At the same time, the inner-connections become stronger in many parts of the brain.

Everyone knows that a person's body develops significantly over the course of his or her life. ( (1) ) In the first few years of life, a person's brain develops rapidly, with millions of neural connections forming every second. By the time children reach the age of six, their brain size is around 90% of its full adult size. The brain of a teenager is basically the same size as that of an adult. However, there are many differences between an adult and an adolescent brain. Scientists believe that when people are in their 20s, their brains continue to mature and fine-tune\* themselves.

More specifically, during the period of childhood and adolescence, unnecessary "gray matter" in the brain decreases. ( (2) ) This increases the so-called "white matter." The amount of this white matter in the brain reaches a peak around the time a person turns 40 years old. Having more white matter means that different areas of the brain

are better connected. This is different from the brain of a child or adolescent, which has fewer connections between its different parts.

In adulthood, the prefrontal cortex\*, located near the front of the brain, reaches its full development. ( (3) ) When the prefrontal cortex has fully developed, it is easier for people to control their emotions and act in a more mature way.

It could be said that a person's mental powers reach their highest level at around the age of 50. ( (4) ) However, even though science has identified patterns of brain development and decline, there is a great deal of variation between individuals.

[注] fine-tune: (最高の状態にするように) ～を微調整する

prefrontal cortex: 《脳》前頭前野皮質

(B)

- A. Until recently, the materials used to create the concrete of ancient Rome were completely unknown.
- B. The combination of these materials created a chemical reaction that resulted in the concrete becoming even stronger.
- C. Another problem is that the volcanic ingredients for the concrete are not available throughout the world.
- D. Scientists are fascinated that the old Roman structures have been able to survive for so many centuries, whereas modern concrete structures may only last a few decades.

In Europe, many impressive structures from ancient Rome still exist today, around two thousand years after they were first built. What is the secret behind the amazing durability of the ancient Roman infrastructure and buildings? Some have argued that these man-made structures have lasted so long due to the concrete used to build them.

What is particularly amazing is that some of the harbor structures built on shorelines next to the ocean remain today, even though they have been continually struck by waves during that long time. ( (5) ) In fact, the ancient concrete not only survives but even gets stronger as time goes by.

( (6) ) But thanks to the work of a team of researchers, much more is now known about this concrete. The researchers, led by the geologist Marie Jackson from the University of Utah, found that Roman concrete was created from volcanic ash, lime and seawater, combined with volcanic rock. ( (7) ) Jackson's research team also found that the concrete contained minerals such as "phillipsite\*," which actually grow in

the concrete as a result of contact with seawater. The growth of these minerals slowly dissolves some of the volcanic ash, creating more space for these minerals to expand and make the concrete stronger. In the case of modern concrete, by contrast, contact with salt water weakens the steel that reinforces the concrete and gradually dissolves the concrete itself.

Given the greater strength of Roman concrete, particularly for seaside structures, many hope to be able to recreate Roman concrete. Unfortunately, that is easier said than done. For one thing, the exact recipe for the concrete is not yet known. ( (8) ) Still, if researchers become able to identify the basic recipe for Roman concrete, it may provide valuable hints on how to create stronger building materials in the future.

[注] phillipsite: 《鉍》フィリップサイト

**4**

次の英文を読んで、質問に答えなさい。（\*印の語（句）は注を参考にするこ  
と）[各3点]

(A) The other day I was helping my great-granddad shop, and he saw me making a call on my phone. He said that when he was young and needed to make a call outside his home, he'd first have to find a phone booth. He suspected I didn't know what a phone booth was! Well, I did, of course. I've seen them in movies. But next, he told me this wild story about his college days, when the cool thing to do was to fit as many people inside a phone booth as possible. It was called "phone booth stuffing."

The word was that some university guys in South Africa had managed to cram 25 people into a single phone booth. After that, college kids around the world set out to break that record. My great-granddad was a sophomore at the time, and he and his dormitory friends were serious about this. On their first try, they could fit in only 16; my great-granddad was on the bottom and said he felt crushed. They thought 25 to be impossible. Phone booths are only three-by-three feet, and just eight feet high. Still, the newspapers kept printing that this university or that university had pushed in 22 or 23 people, so my great-granddad and his friends didn't give up.

His best buddy was an engineering major, and he came up with a plan. There was a set position for everyone and only skinny people could join. If you were overweight or too muscular, you were out. Everyone had to strip down to shorts and coat their bodies with grease to help them slide in easier. One by one, guys slipped into their designated positions, and my great-granddad was again on the bottom, the last person in. It took over an hour, but in the end, they did it. They fit 26

men into a tiny phone booth — completely too, with no arms or legs extending outside.

Yet, to make it count, you had to use the phone to complete a call. But the guy next to the phone was pushed in so tight, he couldn't raise his arms. He could barely breathe, let alone move. No call resulted in no record. So, in the end, they failed.

But what a memory! He made it sound like so much fun that I would like to grab some friends and try to break that record now. Except — you know — these days, phone booths are hard to find.

1. この英文の主題は次のどれか。
  - A. 筆者が若い頃流行った電話ボックスを使っていたはずら
  - B. 電話ボックスに人を詰め込む競争に熱中した曾祖父の話
  - C. 南アフリカで始まった大学対抗の新しい競技
  - D. 曾祖父が達成し、未だ破られていない世界記録
  
2. この文章で述べられている遊びに関する1つのルールとして、本文の内容と一致するものは次のどれか。
  - A. 参加者はオイルを塗らなければならなかった。
  - B. 参加者の1人が設計図を作る必要があった。
  - C. 最後の1人が電話ボックスの一番下に入る必要があった。
  - D. 参加者の1人がボックスから電話をしなければならなかった。
  
3. 筆者の曾祖父の大学時代について、本文から推測できるものは次のどれか。
  - A. 曾祖父は、工学を専攻していた。
  - B. 曾祖父は、電話ボックスをよく使用していた。
  - C. 曾祖父は、どちらかというときやせ型だった。
  - D. 曾祖父は、南アフリカ出身だった。

(B) Tourists once took delight in the beauty of the Pink and White Terraces at Lake Rotomahana on the northern island of New Zealand. They came from far away to see with their own eyes what was then called “the Eighth Wonder of the World.” They photographed the descending layers of terraced pools and bathed in their warm waters. But then, on June 10th, 1886, nearby Mt. Tarawera erupted, throwing ash, rock and mud over the region. The legendary terraces were gone, either buried by the volcanic fragments or swallowed up by the lake, which increased ten times in size due to the force of the eruption. Yet now, new evidence suggests the wonderful terraces may be undamaged under water and mud, and, with some help from human engineering, they could rise once more.

The terraces began forming hundreds and hundreds of years ago, when hot silica stone\* streamed into Lake Rotomahana from geyser\* activity on the lake’s edges. Each fresh flow of silica cooled as it approached the water, eventually creating the layered terraces. The White Terraces were larger, perhaps eight hectares in size, and featuring more than 50 levels over a drop of 25 meters or more. At the point of entry into the lake, they may have been 250 meters wide. Their name came from the pearl-like white color of the stone.

The Pink Terraces lay 1.5 kilometers away. Measurements are uncertain, but they were perhaps half the size of the White Terraces. However, they may have been more popular with visitors, due to the light pink color that gave the terraces their name. Typically, tourists would visit the White Terraces in the morning, take lunch, and then head to the Pink Terraces for a relaxing bath.

With the eruption, the terraces disappeared, the lake grew in both diameter and depth, and the emerging tourist trade dried up. All that

remained were photographs and paintings. That is how things stood for over a hundred years.

But in the early 2000s, advanced underwater mapping of Lake Rotomahana hinted that the terraces might still exist, deep under water. For the next two decades, scientists went back and forth over new data and measurements, uncertain whether the terraces had survived. One problem was that pre-eruption scientific studies did not exist, so it was hard to draw conclusions over what modern findings were showing.

The current thought is that at least parts of the terraces may have survived. Engineers also believe that Lake Rotomahana could be partially pumped out, which would bring the terraces to the surface once again.

Nothing will happen soon. The scientific, environmental and legal issues with such a project are complex. However, the possibility is real. With luck, future visitors to New Zealand may again view the Pink and White Terraces, a true wonder of the world.

[注] silica stone: ケイ石

geyser: 間欠泉

4. この英文の主題は次のどれか。

- A. ニュージーランドの Rotomahana 湖は自然の驚異である。
- B. The Pink and White Terraces は長い間、観光名所となっている。
- C. Rotomahana 湖は1886年の大規模な火山噴火を生き延びた。
- D. The Pink and White Terraces は、二度と現れることはない。

5. **The Pink and White Terraces** について、本文の内容と一致するものは次のどれか。

- A. 2つの段丘は横に並んでいた。
- B. 2つの段丘の寸法に関して豊富な証拠が残っている。
- C. 2つの段丘は、色に応じて名前が付けられた。
- D. 2つの段丘は、1886年の火山噴火で形成された。

6. **The Pink and White Terraces** の復元について、本文から推測できるものは次のどれか。

- A. 現在の技術では科学的に不可能である。
- B. 現在、段丘復元作業は資金不足のため進んでいない。
- C. 段丘を復元できるとしても、何年もかかりそうだ。
- D. 段丘を復元する計画が現在進行中である。

次のページに進みなさい

5 次の英文を読んで、質問に答えなさい。（\*印の語（句）は注を参考にするこ  
と）[各3点]

(A) Many scientific discoveries have been made by men, but it is also important to remember the contributions of women. One significant contributor was geologist and oceanographer\* Marie Tharp, who created the first detailed map of the Atlantic Ocean floor. Tharp became interested in making maps—a field called cartography\*—from an early age because her father surveyed land for the US Department of Agriculture. Her earliest professional opportunities came during World War II, when so many men had left to fight in the war, leaving spots open for women to study at universities and earn advanced degrees (which were usually reserved for men). Despite many restrictions that prevented women from conducting complex research or joining scientific expeditions, Tharp produced maps and other technical drawings for various companies, institutions, and museums.

Tharp's biggest impact came later when she met fellow geologist Bruce Heezen and partnered with him to use data from maps to help the military find missing planes that had crashed into the sea during the war. From there, she started mapping the ocean floor with a level of detail that had not been attempted before; she is the person who discovered the Mid-Atlantic Ridge, an enormous underwater mountain range that affects currents all through the Atlantic Ocean. Such information continued to be useful to the US military, as detailed maps of the ocean depths assisted in naval strategies and in locating enemy submarines.

The information collected by Tharp completely changed the way people thought about the science behind planet Earth because knowing

the landscapes and structures of the ocean floor leads to a better understanding of how the Earth's continents are formed. In particular, Tharp's discoveries are the basis for what people know about continental drift, the idea that Earth's continents have drifted away from each other over long periods of time. Tharp and Heezen continued their work and eventually published a full map of the world's ocean floors in 1977.

Tharp's most ground-breaking research occurred in the 1950s and 60s, and unfortunately, because women were not taken seriously as scientists, most of her findings were published under Heezen's name, without Tharp receiving credit. But she is now recognized as one of the greatest geologists of all time and an example of a talented woman who excelled in the face of discrimination against women. Before she died in 2006, she donated her collection of maps to the US Library of Congress, where they are preserved for their historical significance.

[注] oceanographer: 海洋学者

cartography: 地图学

1. What is the main topic of this passage?
  - A. The significance of ocean currents during WWII
  - B. How the ocean floor has changed over centuries
  - C. How women faced discrimination in research in the 1950s
  - D. The life and achievements of an important scientist

2. Which of the following is true about Tharp's research?
- A. The military declined to work with her because they had no use for her information.
  - B. She was denied credit for her findings because she was a woman.
  - C. It only applies to studying ocean currents.
  - D. It was limited to the Atlantic Ocean and the Pacific Ocean.
3. What can be inferred from this passage?
- A. Scientists still do not fully understand continental drift.
  - B. Tharp's theory on the Mid-Atlantic Ridge is still controversial and unproven.
  - C. Hard-working, capable women can overcome discrimination.
  - D. The Library of Congress had no need for additional oceanography materials.

次のページに進みなさい

(B) The “cobra effect” is a good example of what is known as a “perverse\* incentive.” An incentive is the reason people are motivated to do something. For example, the incentive for studying hard at a university could be to secure a good-paying job after graduating, just as the incentive for doing well at that job could include salary increases as well as additional bonuses or benefits. When an incentive becomes perverse, however, it means people may find a reason — an incentive — to behave in improper or dishonest ways. Sometimes a perverse incentive encourages people to seek advantage by going against the intended plan, and the original positive idea quickly leads to negative consequences.

The name “cobra effect” is derived from events that are said to have occurred during the British colonial rule in India. Although there are no historical records of these events actually taking place, the story goes as follows: the British government realized the large number of cobras — a dangerous, venomous\* snake — was becoming a big problem for their colonial soldiers and administrators. Consequently, the government decided to make an offer to the local population, announcing that it would pay a reward for every dead cobra the people could bring to them. The program was a success, with many people bringing in large numbers of dead cobras to collect their rewards.

Until, that is, people figured out the obvious: the more cobras they brought in, the more money they received. Thus, a new incentive emerged: create more cobras! It was not long before the Indians began breeding cobras in captivity, then killing the grown ones and getting paid. It is said that, for a short period, there were people whose income was entirely based on cheating the British government in this way. Eventually, the British found out about this and canceled the offer, paying no more money for dead cobras. Hearing this, what did these

cobra breeders do? Disappointed by the news, they released all of their extra cobras into the wild, resulting in a larger number of deadly cobras than when all of this began.

Since then, the cobra effect has become a nickname for perverse incentives and has been used to refer to instances in which a well-intentioned idea has the opposite effect, leading to a result that is worse for everybody. There are other, similar examples of how good ideas fell apart because they created a perverse incentive. In 1902, the French government ruled over Hanoi, Vietnam. Responding to a rat problem, they offered people a reward for killing rats and bringing their tails as proof. But soon, it became clear that people were capturing the rats, cutting off their tails, and then releasing them alive; this ensured that the rats would survive, breed, and produce more and more rats. The incident is referred to as the Great Hanoi Rat Massacre\*. In this case, the resulting rise in the rat population caused all kinds of new problems, including the spread of disease.

[注] perverse: 意図に反する

venomous: 毒液を分泌する

massacre: 大量虐殺

4. What is the main topic of this passage?
- A. The meaning of the cobra effect
  - B. A failed British government policy in India
  - C. What happens when people decide not to follow government rules
  - D. The ways French government adopted to reduce rats in Hanoi

5. What was the end result of the failed project to eliminate cobras in India?
- A. The country ended up with fewer cobras.
  - B. The country ended up with more cobras.
  - C. The project resulted in no change to the number of cobras.
  - D. The project killed all of the local cobras.
6. What lesson does the cobra effect teach us about human nature?
- A. People are not as scared of snakes as they seem.
  - B. It is hard for people to come together on a large project.
  - C. Some people will cheat if it leads to more benefits.
  - D. People care more about money than about taking care of animals.



1	1	A	●	○	○
	2	A	○	○	●
	3	A	●	○	○
	4	A	○	○	●
	5	A	○	●	○
	6	A	○	○	○
	7	A	○	●	○
	8	A	○	●	○
	9	●	○	○	○
	10	A	○	○	○
	11	A	○	●	○
	12	●	○	○	○
	13	A	○	●	○
	14	A	○	○	○
	15	A	○	○	●
	16	A	○	○	●
	17	A	○	●	○
	18	A	○	○	●
	19	A	○	●	○
	20	A	○	○	○

20点

2		( 2 )					( 5 )					
	1	A	○	○	○	○	○	○	○	○	○	○
	2	A	○	○	○	○	○	○	○	○	○	○
	3	●	○	○	○	○	○	○	○	○	○	○
	4	A	○	○	○	○	○	○	○	○	○	○
	5	A	○	○	○	○	○	○	○	○	○	○
	6	A	○	○	○	○	○	○	○	○	○	○
	7	A	○	○	○	○	○	○	○	○	○	○
	8	A	○	○	○	○	○	○	○	○	○	○
	9	●	○	○	○	○	○	○	○	○	○	○
10	A	○	○	○	○	○	○	○	○	○	○	

20点

3	1	A	○	○	○
	2	A	○	○	○
	3	○	○	○	○
	4	A	○	○	○
	5	A	○	○	○
	6	○	○	○	○
	7	○	○	○	○
	8	A	○	○	○

24点

4	1	A	○	○	○
	2	A	○	○	○
	3	A	○	○	○
	4	○	○	○	○
	5	A	○	○	○
	6	A	○	○	○

18点

5	1	A	○	○	○
	2	A	○	○	○
	3	A	○	○	○
	4	○	○	○	○
	5	A	○	○	○
	6	A	○	○	○

18点