





# 英 語

1 次の【A】～【C】について、後の問い(問1～10)に答えよ。

【A】 問1～4の( )に入る語句として最も適切なものを、①～④のうちからそれぞれ1つずつ選べ。

問1 We hope that voluntary efforts ( 1 ) so that a great disaster like this never occurs again.

- ① to take                      ② will be taken                      ③ have taken                      ④ to be taken

問2 Keiko and her twin sister took the same college entrance examination. Keiko passed the exam, and ( 2 ).

- ① her sister did was                      ② did was her sister  
③ her sister so was                      ④ so did her sister

問3 It was because of the railroad accident ( 3 ) the train was very crowded.

- ① that                      ② when                      ③ where                      ④ who

問4 The exhibition hall was ( 4 ) today, but it is only half-finished due to a labor shortage.

- ① being ready                      ② having ready  
③ to have been ready                      ④ having been ready

【B】 問5～8の英文(a)と(b)の( )に入る共通の語として最も適切なものを、①～④のうちからそれぞれ1つずつ選べ。

問5 (a) The people ( 5 ) were amazed at the moving speech.

(b) I think this animal is still ( 5 ) somewhere in the world.

- ① live                      ② present                      ③ that                      ④ those

問6 (a) It is about time to ( 6 ) up the open discussion.

(b) A large ( 6 ) of money was collected for the special event.

- ① sum                      ② stock                      ③ amount                      ④ number

問7 (a) In the company, only one person is in ( 7 ) of the sales department.

(b) How much do you ( 7 ) for express delivery?

- ① pay                      ② cost                      ③ charge                      ④ expense

問8 (a) An increasing number of teachers took sick leave ( 8 ) to mental illness.

(b) The film is ( 8 ) to be released on April 25, 2026.

- ① likely                      ② close                      ③ owing                      ④ due

【C】 次の英文を読み、(        )に入る語として最も適切なものを、①～④のうちからそれぞれ1つずつ選べ。

To realize a decarbonized society, it is essential to further promote the use of solar power, but the problem is ( 9 ) to do with aging solar panels. ( 10 ) the government invest in both panel recycling and technological innovation, the environmental impact would be greatly reduced.

問 9 ( 9 )

- ① whom                      ② when                      ③ how                      ④ what

問10 ( 10 )

- ① Should                      ② Would                      ③ Could                      ④ Might

2

Read the passage and emails and answer the questions (問 1 ～10).

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(Adapted from <https://www.ewastel.com/solutions-e-waste-problems/>)

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3 次の英文を読み、後の問い(問1～10)に答えよ。

In 2009, chemist Perdita Barran of the University of Manchester received what turned out to be a momentous phone call from her collaborator, Tilo Kunath of the University of Edinburgh. A 68-year-old grandmother and nurse, Joy Milne, had stood up at a public talk Kunath was giving about his research on stem cells and Parkinson's disease and asked why people with the \*<sup>1</sup> neurodegenerative disorder had a distinctive smell. That possibility wasn't one Kunath had considered before, but Milne was very convincing. "Her question had obviously affected him," Barran says, remembering the phone conversation. What Kunath wanted to know: Could Barran identify what Milne was smelling? "I said, 'That's what I do,'" Barran recalls. "I explained that smells are molecules, and we have receptors that 'see' these molecules and turn them into signals. As a mass spectrometrists, I measure molecules by their weight."

After 10 years of experimentation, Milne, Kunath, and Barran have their answer — a team led by Barran published their results — and it may lead to a noninvasive screening test for early detection of Parkinson's disease.

About 1 in 15 people will be affected by Parkinson's disease in their lifetimes. Symptoms of Parkinson's disease include tremors, rigid muscles, speech changes, and sleep disruption. The number of people with Parkinson's disease doubled between 1990 and 2015 to more than 6 million. And that number is predicted to double again by 2040. Parkinson's patients may struggle for months or years without a diagnosis and proper treatment, especially the 1 in 40 people who develop the disease before the age of 45. Because the disease is associated with the elderly, younger Parkinson's patients often struggle a long time before they ( 24 ). That was true for Milne's late husband, Les.

For Milne, the story goes back to 1982, when Les, then in his early 30s, began to smell different. She noted it, but didn't think much of it. In 1994, when her husband was 44, he was diagnosed with Parkinson's disease as his symptoms became more obvious. But it took another 15 years before Milne associated the smell with Parkinson's. In 2009, she and her husband got involved with a group for people with the neurological disorder, and she noted that all the people she met with the disease smelled like her husband. Because he was an anesthesiologist and she is a nurse, they knew how to find a researcher to approach about their hypothesis.

When Barran received the call from Kunath, the first thing she thought was that Milne was smelling age-related changes. "It's my eternal shame, but I've redeemed myself now," Barran says. Still, her skepticism was a guide: They knew they needed to overcome these obvious questions about whether Milne was misattributing what she smelled.

Barran's team devised a simple experiment first: They found six people with Parkinson's and six healthy people as controls who were about the same age. The study participants wore T-shirts and then gave them to Barran's team, who cut them in half and then did a blind test with Milne to see if she could correctly identify the people with Parkinson's by smell. She was able to correctly and consistently attribute all the T-shirts to people with Parkinson's.

But Milne also said one of the T-shirts from the control group smelled like the ones worn by people with Parkinson's. This false positive initially was a problem. The group wasn't able to convince funders that the experiment was worth doing—that is, until that control group member contacted them eight months later to let them know he had been diagnosed with Parkinson's disease.

Barran still needed to home in on the source of the smell, and the T-shirt experiment had offered an important clue. “We had thought that the smell would be strongest in the sweat in the armpit,” Barran explains. “But it was strongest in the part of the T-shirt that sits under the neckline, where there is a lot of sebum, which is the oily substance that we excrete all over our bodies except on the palms of the hands and the soles of the feet.” That clue guided their clinical trial, which sought to detect the molecules Milne was smelling.

For each of the study participants, 43 with Parkinson's and 21 control participants, the team wiped with cloths areas of the body where sebum builds up. They then heated up those samples and put them through a mass spectrometer, which separates the molecular components by mass. Barran's team set up an “odor port” through which Milne could smell the separated molecules as they passed through the equipment and note when she smelled the scent she associated with Parkinson's patients.

This study isolated 17 molecules that were different when comparing sebum from patients with Parkinson's and sebum from the control group. Nine of those were validated using an independent <sup>\*2</sup> cohort of 31 participants; four of those nine molecules passed through the odor port at a moment when Milne confirmed she was smelling an odor she associated with Parkinson's. Those four compounds alone can predict Parkinson's disease in 9 out of 10 people, making these molecules potential biomarkers for Parkinson's disease.

(Adapted from <https://www.americanscientist.org/article/on-the-scent-trail-of-parkinsons-disease>, <https://oxsci.org/hidden-talent-turned-scientific-superpower-the-woman-who-can-smell-parkinsons/>)

注) <sup>\*1</sup> neurodegenerative disorder : 神経変性疾患, <sup>\*2</sup> cohort : 特定の研究で調査対象となる集

団

問 1 According to the first paragraph, which of the following is true? 21

- ① Kunath can smell the distinct scent of Parkinson's patients.
- ② Kunath asked Barran if she could identify what Milne was smelling.
- ③ Milne was convincing and persuaded Kunath to help Barran.
- ④ Milne had been studying about stem cells and Parkinson's disease.

問 2 The sentences below describe Milne's special ability. Which of the following is the most appropriate for ( 22 )?

Milne has a condition known as hereditary hyperosmia, which means that she was born with a heightened sense of smell. People with this condition can sense ( 22 ) of odor, which allows them to detect subtle changes in scent that others cannot.

- |                        |                    |
|------------------------|--------------------|
| ① slower adaptations   | ② increased counts |
| ③ lower concentrations | ④ similar amounts  |

問 3 According to the third paragraph, which of the following is true? 23

- ① There were more than 6 million people with Parkinson's disease in 2015.
- ② The rate of increase in Parkinson's patients is predicted to decrease in the future.
- ③ Most Parkinson's patients develop the disease before the age of 45.
- ④ About 1 in 15 people will have tremors and sleep disruption in their lifetimes.

問 4 Which of the following is the most appropriate for ( 24 )?

- |                   |                        |
|-------------------|------------------------|
| ① become uncommon | ② are diagnosed        |
| ③ have symptoms   | ④ associate themselves |

問 5 According to the fourth paragraph, which of the following is true? 25

- ① It took Milne 15 years to detect the distinct smell of Parkinson's patients.
- ② Milne realized that the change in smell caused Parkinson's disease in 2009.
- ③ Les did not smell different until he was diagnosed with Parkinson's disease.
- ④ Milne did not link Parkinson's disease and the smell until 2009.

問 6 Which of the following is the most appropriate for their hypothesis? 26

- ① People with neurological disorders loses their ability to smell.
- ② All the people with Parkinson's disease have a distinctive smell.
- ③ Motor-dysfunction causes Parkinson's patients to smell different.
- ④ All the symptoms of Parkinson's disease precede a change in the smell.

問 7 Which of the following best explains her skepticism? 27

- ① a sense of shame that Barran felt after misattributing what Milne was smelling
- ② a certainty that the study will redeem Barran's reputation as a researcher
- ③ a suspicion that Milne was smelling something other than the scent of Parkinson's patients
- ④ a concern that Kunath was aware that Milne was detecting age-related changes in the smell

問 8 How many of T-shirts did Milne choose as the ones worn by people with Parkinson's disease? 28

- ① 1                      ② 6                      ③ 7                      ④ 12

問 9 According to the last paragraph, how many molecules in the study were found to be potential biomarkers for Parkinson's disease? 29

- ① 31                      ② 17                      ③ 9                      ④ 4

問10 Which of the following is true about the mass spectrometer study in the passage? 30

- ① This study denied biomarkers for Parkinson's disease used in a screening test.
- ② The armpit parts of the T-shirt were used for the mass spectrometer analyses.
- ③ The four molecules identified by the study can invariably predict Parkinson's disease.
- ④ Milne helped the study by smelling molecules coming out of a mass spectrometer.

4 次の英文を読み、後の問い(問1～10)に答えよ。

The idea that future people count<sup>ア</sup> is common sense. Future people, after all, are people. They will exist. They will have hopes and joys and pains and regrets, just like the rest of us. They just don't exist yet.

To see how intuitive this is, suppose that, while hiking, I drop a glass bottle on the trail and it shatters. And suppose that if I don't clean it up, later a child will cut herself badly on the shards. In deciding whether to clean it up, does it matter when the child will cut herself? Should I care whether it's a week, or a decade, or a century from now? No. Harm is harm, ( 32 ) it occurs.

Or suppose that a plague is going to infect a town and kill thousands. You can stop it. Before acting, do you need to know when the outbreak will occur? Does that matter, just on its own? No. The pain and death at stake are worthy of concern regardless.

The same holds for good things<sup>イ</sup>. Think of something you love in your own life; maybe it's music or sports. And now imagine someone else who loves something in their life just as much. Does the value of their joy disappear if they live in the future? Suppose you can give them tickets to see their favourite band or the football team they support. To decide whether to give them, do you need to know the delivery date?

Imagine what future people would think, looking back at us debating such questions. They would see some of us arguing that future people don't matter. But they look down at their hands; they look around at their lives. What is different? What is less real? Which side of the debate will seem more clear-headed and obvious? Which more short-sighted and narrow-minded?

Distance in time is like distance in space. People matter even if they live thousands of miles away. ( 34 ), they matter even if they live thousands of years hence. In both cases, it's easy to mistake distance for unreality, to treat the limits of what we can see as the limits of the world. But just as the world does not stop at our doorstep or our country's borders, neither does it stop with our generation, or the next.

These ideas are common sense. A popular proverb says, "A society grows great when old men plant trees under whose shade they will never sit."<sup>ウ</sup> When we dispose of radioactive waste, we don't say, "Who cares if this poisons people centuries from now?" Similarly, few of us who care about climate change or pollution do so solely for the sake of people alive today. We build museums and parks and bridges that we hope will ( 36 ) for generations; we invest in schools and longterm scientific projects; we preserve paintings, traditions, languages; we protect beautiful places. In many cases, we don't draw clear lines between our concerns for the present and the future — both are in play.

Concern for future generations is common sense across diverse intellectual traditions. One Native American oral constitution has a particularly clear statement. It encourages leaders to "have always in view not only the present but also the coming generations." One faithkeeper from Native American community phrases this in terms of a 'seventh-generation' principle, saying, "We... make every decision that we ( 37 ) relate to the welfare and well-being of the seventh generation to come... We consider: will this be to the benefit of the seventh generation?"

However, even if you grant that future people count, there's still a question of how much weight to give their interests. Are there reasons to care more about people alive today?

Two reasons stand out to me. The first is partiality. We often have stronger special relationships with people in the present, like family, friends, and fellow citizens, than with people in the future. It's common sense that you can and should give extra weight to your near and dear.

The second reason is reciprocity. Unless you live as a <sup>\*1</sup>recluse in the wilderness, the actions of an enormous number of people — teachers, shopkeepers, engineers, and indeed all taxpayers — directly benefit you and have done so throughout your life. We typically think that if someone has benefited you, that gives you a reason to ( 39 ) them. But future people don't benefit you the way others in your generation do.

Special relationships and reciprocity are important. But they do not change the upshot of my argument. I'm not claiming that the interests of present and future people should always and everywhere be given equal weight. I'm just claiming that future people matter significantly. Just as caring more about our children doesn't mean ignoring the interests of strangers, caring more about our contemporaries doesn't mean ignoring the interests of our descendants.

(Adapted from *What We Owe The Future* by William MacAskill, Basic Books, 2022)

注) <sup>\*1</sup>recluse : いんとんしゃ 隠遁者

問 1 Which of the following is the closest meaning of future people count in the passage?

31

- ① future people need help
- ② future people have advantages
- ③ future people are lucky
- ④ future people are important

問 2 Which of the following is the most appropriate for ( 32 )?

- ① whatever                      ② whichever                      ③ whenever                      ④ wherever

問 3 Which of the following is the closest meaning of The same holds for good things in the passage? 33

- ① Good things always have the same outcome.
- ② Good things follow the same rule.
- ③ Good things occur with the same frequency.
- ④ Good things have the same advantages.



問 4 Which of the following is the most appropriate for ( 34 )?

- ① Conversely      ② Oppositely      ③ Likewise      ④ Otherwise

問 5 Which of the following is the closest meaning of under whose shade they will never sit in the passage? 35

- ① They will not benefit from their own efforts.  
② They will live long enough to see the results of their actions.  
③ They take action only when they see immediate results.  
④ They regret taking action because the results were disappointing.

問 6 Which of the following is the most appropriate for ( 36 )?

- ① end      ② last      ③ encourage      ④ disappear

問 7 Which of the following is the most appropriate for ( 37 )?

- ① get      ② help      ③ hope      ④ make

問 8 Which of the following is the closest meaning of partiality in the passage? 38

- ① having a strong preference for those sharing the present over future people  
② treating everyone equally without favoring anyone based on when they live  
③ being indifferent to opinions and choices of those in the present  
④ making decisions based solely on facts and evidence known to the current generation

問 9 Which of the following is the most appropriate for ( 39 )?

- ① exploit      ② ignore      ③ like      ④ repay

問10 Which of the following is true about the author's opinion? 40

- ① The author is cautious that caring much about their own generation might lead to underestimating future generations at some point.  
② The author argues that the concerns of current and future generations deserve the same level of consideration.  
③ The author argues that it is possible to give some priority to the present generation without ignoring the importance of future generations.  
④ The author considers reciprocity to be a concept that raises ethical concerns and believes it should be avoided by the responsible current generation.