

英 語

(医 学 部)

— 2024年2月2日 —

【注意事項】

- (1) 試験開始の合図があるまで、問題の内容を見てはいけません。
- (2) 解答用紙への記載はHBの黒鉛筆、HBの黒芯シャープペンシルを使用してください。
- (3) 解答にあたっては、所定の解答用紙内に解答してください。
- (4) 解答用紙には解答欄以外に記入欄があります。氏名と受験番号を正しく記入してください。さらに受験番号を〔受験番号マーク欄〕にマークしてください。
- (5) スマートフォン・携帯電話・ウェアラブル端末等の電子機器類の使用を禁止します。また、時計としての使用も認めません。辞書・電卓・通信機能等の有無が判別しづらい時計の使用も認めません。
- (6) 中途退室は許可しません。試験中の発病またはトイレ等やむを得ない場合には、手を挙げて試験監督者の指示にしたがってください。
- (7) 試験室においては、すべて試験監督者の指示にしたがってください。したがらない場合は、退場させることがあります。

1 次の英文を読み、問3、問9～問11は問いに答え、問1、問2、問4～問8は文を完成させなさい。答えは最も適切なものを、それぞれA～Eの中から一つ選びなさい。問12は指示に従ってTかFを選びなさい。

Campanology, the art of bell ringing, has a long history in many cultures around the world. Bells have traditionally served both religious purposes, such as calling people to worship, and non-religious functions, like marking victories in battle. Today, in England alone, there are over 5,000 church bell towers, each made up of between five to twelve bells that ring out in intricate patterns and rhythms known for their beauty and complexity. However, despite its historical and cultural value, interest in this practice is declining and its future in modern society is less than certain.

Although campanology can be traced back over a thousand years to the Middle Ages, it grew in popularity and sophistication in England in the 17th century. Instructions on ringing techniques and patterns using multiple bells were first published in Richard Duckworth and Fabian Stedman's 1668 book *Tintinnalogia*, which quickly sold out in its first print run. Stedman expanded on this as the sole author of the 1677 publication *Campanologia*, which included 53 new methods for five, six, seven, and eight bells. Bell-ringing techniques were further standardized in 1891 with the founding of the London-based Central Council of Church Bell Ringers (CCCBR), a body which today continues to coordinate, regulate, and promote English-style bell ringing.

One of the defining characteristics of the English style is the complex art of "change ringing." This involves a group of ringers standing in a room beneath five to twelve individually tuned bells, ringing them according to a set sequence of mathematical arrangements without repetition to create a coordinated overall pattern of sound. Using a technique called "handling," they apply tension to each bell's rope and control the movement of the bell as it swings back and forth. Timing is crucial, as each bell must strike at precisely the right moment to create the desired pattern. According to the British Association of Ringing Teachers, it takes around two and a half years of study and practice to become competent in the basics of change ringing.

The training required is one of several reasons for the decline in participation in campanology in recent years. The widespread accessibility of more immediate forms of entertainment and leisure activities has also made bell ringing less attractive to younger generations, seemingly making bell ringers a dying breed. In the autumn of 2022, when the CCCBR published a call for 8,000 new recruits to help the 30,000 currently practicing campanologists ring out the U.K.'s 38,000 church bells to mark the coronation of King Charles III, only 1,750 people responded. The general decline in interest has been compounded in recent years by COVID-19 pandemic-related lockdowns and social distancing that made group-based ringing impossible.

Another factor contributing to the decline of campanology is the cost of maintaining and repairing aging bells and bell towers. The over £10,000 (1.8 million yen) required to repair a single bell can be prohibitively expensive, particularly for smaller churches or community organizations that rely on donations to maintain their bell towers. Partly because of this, some bells and their towers have fallen into disrepair, further reducing the number of places where campanology can be practiced.

Technology has also played a role in its decline. Considered in some ways the social media of its day for the way it shared news of weddings, funerals, and other important days, bell ringing has long been superseded as the

best way to disperse information. Today's mass media and social media can both broadcast messages more widely and quickly than bell ringers ever could. Although bell ringing continues for cultural and historical reasons, it is now somewhat outdated as a communication tool.

Despite the challenges it faces, campanology may still have a place in the modern world. To increase its access to funding and appeal to young people, practitioners like Michael Wigney, representing the London Diocesan Guild of Church Bell Ringers (LDGCBR), are calling for it to be categorized as a sport. Although the CCCBR opposes this change, citing the relationship between bell ringing and church groups, this campaign is ongoing. Another strategy has been to encourage the participation of women and children in this traditionally male activity by using lighter bells. The fact that manual bell ringing was added to UNESCO's lists of Intangible Cultural Heritage of Humanity in 2022 is a sign of renewed interest in the practice. These moves suggest that the bells have yet to ring their last.

問1 According to the first paragraph, it can be inferred that campanology is _____.

- ア. unique to the country of England
- イ. less popular than it was in the past
- ウ. a set of complex religious beliefs
- エ. now studied, but not practiced

問2 The second paragraph suggests that _____.

- ア. Duckworth co-wrote both *Campanalogia* and *Tintinnalogia* with Stedman
- イ. the first published guide to multiple bell ringing was unpopular
- ウ. Stedman wrote about ways to conduct multiple bell ringing
- エ. *Tintinnalogia*'s content expanded on many of the ideas in *Campanalogia*

問3 According to the third paragraph, which of the following is **NOT** true about change ringing?

- ア. The bells are positioned above the ringers.
- イ. It takes place with a maximum of five bells.
- ウ. Ringers are indoors when striking the bells.
- エ. It is performed by more than one person.

問4 According to the third paragraph, it can be inferred that a bell ringer _____.

- ア. pulls on a rope attached to an individual bell
- イ. rings the bell assigned to them in a repeated pattern
- ウ. pushes bells back and forth with their own hands
- エ. can master change ringing after twelve months' training

問5 According to the fourth paragraph, _____.

- ア. a select group of current bell ringers was requested to ring bells for a coronation
- イ. easy access to less time-consuming pastimes has affected campanology's popularity
- ウ. participation in bell ringing increased dramatically during the COVID-19 pandemic
- エ. there are 38,000 active church bell ringers practicing across the United Kingdom

問6 The purpose of the fifth paragraph is to _____.

- ア. outline one of the obstacles to increasing participation in bell ringing
- イ. appeal for donations to help conduct expensive bell repair and maintenance
- ウ. describe the methods used to restore bell towers to their original condition
- エ. illustrate how old and unusable some bells and bell towers are

問7 In the sixth paragraph, superseded is closest in meaning to _____.

- ア. studied
- イ. viewed
- ウ. criticized
- エ. replaced

問8 According to the final paragraph, _____.

- ア. recognizing bell ringing as a sport could lead to financial support for campanology
- イ. bell ringing has yet to be listed as an Intangible Cultural Heritage of Humanity
- ウ. participation in campanology has historically been balanced in terms of gender
- エ. Michael Wigney of the LDCCBR is interested in becoming a bell ringer himself

問9 According to the passage, which of the following is true about the CCCBR?

- ア. It is campaigning to have bell ringing formally recognized as a sport.
- イ. It was established in London in the last decade of the 18th century.
- ウ. It now holds the view that bell ringing should be separate from religion.
- エ. It was involved in the recruitment of new bell ringers in the fall of 2022.

問10 According to the passage, which of the following is **NOT** true?

- ア. Some bell tower repairs can only take place when money has been donated.
- イ. The decline in the number of working bell towers is linked to how they are funded.
- ウ. Bell ringing is an improvised art form which allows ringers to strike bells freely.
- エ. One reason for classifying campanology as a sport is to attract younger people.

問11 Which would be the best title for the passage?

- ア. Campanology: The Sound of a Long-Forgotten Culture
- イ. The Religious Origins and Cultural Purposes of Bell Ringing
- ウ. Bell Ringing: A Complex Art and Its Place in the 21st Century
- エ. A Practical Guide to Mastering the Art of Campanology

問12 According to the passage, mark "T" if the statement is true and mark "F" if the statement is false.

- 1. There are over 20,000 church bells in England.
- 2. The art of bell ringing originated in the 1600s.
- 3. The CCCBR is now known as the LDGCBR.
- 4. Bell ringing is, surprisingly, as efficient a means of communication as modern-day social media is.

2

次の1～10の英文の空所に入る最も適切な語(句)を、それぞれア～エの中から一つ選びなさい。

1. At the end of the story, () of the two princes was chosen to marry the princess.
ア. more honest イ. the more honest ウ. the honest エ. the most honest
2. My mother doesn't like () while she's knitting; she wants to focus on keeping her stitches all the same size.
ア. to be distracted イ. will be distracting ウ. be distracting エ. be distracted
3. A large-scale project () which my colleagues have been involved for years will finally be completed.
ア. in イ. to ウ. for エ. at
4. The test question asked us to () between three similar forms of government.
ア. different イ. differently ウ. differentiate エ. difference
5. I've never met him, but () I've heard, he's supposed to be as deceptive as he is charming.
ア. to where イ. from what ウ. about how エ. in which
6. The vote is considered highly important, as () wins the position of president could control the company's future direction.
ア. however イ. whenever ウ. whoever エ. whatever
7. She was () student that three of her teachers recommended her for a scholarship.
ア. so bright a イ. too bright a ウ. too bright エ. so bright
8. My friends say that Alex has been lying to me. () that as it may, I still trust him.
ア. Is イ. Be ウ. Was エ. Were
9. The porter, after a moment of indecision, relieved () and brought it to her room.
ア. her of luggage her イ. her of her luggage
ウ. luggage her of her エ. of her luggage her
10. Despite its high prices, furniture made of good materials such as walnut and mahogany ().
ア. are selling well イ. sells well ウ. being sold well エ. sell well

2

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ア. however イ. whenever ウ. whoever エ. whatever
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ア. so bright a イ. too bright a ウ. too bright エ. so bright
- My friends say that Alex has been lying to me. () that as it may, I still trust him.
ア. Is イ. Be ウ. Was エ. Were
- The porter, after a moment of indecision, relieved () and brought it to her room.
ア. her of luggage her イ. her of her luggage
ウ. luggage her of her エ. of her luggage her
- Despite its high prices, furniture made of good materials such as walnut and mahogany ().
ア. are selling well イ. sells well ウ. being sold well エ. sell well

4

次の2つの会話文を読み、2、3、5～8は問いに答え、1、4、9は意味・内容に合うように文を完成させなさい。
答えは最も適切なものを、それぞれア～エの中から一つ選びなさい。

Sarah: Guys, are you sure we're going the right way? I feel like we've been walking in circles for the past hour.

Lisa: Same here. I'm exhausted! This graduation trip is starting to feel a lot less fun. It'll be getting dark soon, and we don't want to be out here all night. I thought you said you knew the way, John.

John: Me? I think you're confusing me with someone else. Besides, you were the one who suggested this hike in the first place. I just wanted to relax by the pool back at the resort. Hiking in the middle of summer was a crazy idea.

Mitch: Relax, you two. This is the way to the bus stop at the end of the trail—I can feel it. Remember how the guy at the front desk told us it's a four-hour hike one-way? We've already been walking for over three hours. We're almost there!

Sarah: Good point. The last bus back to the resort leaves at 6:30. That's about an hour and a half from now. We can make it if we press on. We might even come across some other hikers on the way who can help us with directions.

Lisa: That's pretty optimistic. I think it's safer to just turn around and go back the way we came. That'll take us straight back to the resort.

John: Are you serious? There's no way I'm hiking for another three hours in this heat.

Sarah: That's enough! Let's focus. We need to figure out where we are. Mitch, where's that trail map you were showing me at the breakfast buffet?

Mitch: The map? It was in my pocket at the start of the trail, but now it's gone. Let me check my bag... Nope, not there either. I must have dropped it on the way.

Lisa: Really, Mitch? You're unbelievable!

Sarah: It's okay. Calm down. We still have our phones, right? Does anyone have a signal? I haven't had one since we left the waterfall.

John: My battery is dead.

Lisa: Let me check. Nope, no signal at all. Mitch?

Mitch: I left my phone at the resort. This is supposed to be a nature getaway, right? Relax, you guys. We're on the right track. No maps or phones—I trust my gut. Let's keep going!

Lisa: Your gut? Seriously? At this rate, we'll end up stuck out here overnight with squirrels and snakes and who knows what else! I'm turning around and going back. Who's with me?

Mitch: Not me!

John: Not a chance!

Sarah: Sorry, Lisa. I'm with them.

Lisa: Okay, fine. Don't come crying to me when you're out here spending the night with bears. And Sarah, don't ever ask me along on one of these trips again, okay? Bye!

1. When Lisa says, "Don't come crying to me." she most likely means that the other hikers should _____.
- ア. take responsibility for their actions and face the consequences
 - イ. express any emotions they are feeling openly and honestly
 - ウ. seek out expert guidance before they make any final decisions
 - エ. approach others for sympathy and comfort when they face trouble
2. According to the dialogue, which of the following is **NOT** true about the hike?
- ア. It was originally Lisa's idea.
 - イ. A staff member at the resort gave them information.
 - ウ. John was reluctant to join from the start.
 - エ. The group received advice from other hikers on the trail.
3. According to the dialogue, what is most likely true?
- ア. Lisa is willing to spend the night on the hiking trail.
 - イ. John invited Lisa to join the trip they are on.
 - ウ. Sarah eventually agrees with Mitch's plan.
 - エ. Mitch left the map behind at the resort.
4. According to the dialogue, it can be inferred that _____.
- ア. Mitch does not believe that he has a good sense of direction
 - イ. None of them brought their mobile phone with them on the hike
 - ウ. John agrees with Lisa's view on how to resolve the situation
 - エ. The four people on the hike were students until recently

Maddie: I've been thinking about the Science Department student trip for the eighth graders. What about Greyson Zoo? We've been teaching animal classification systems all month, and it's an entertaining place for students, too.

Iwan: I suppose they'll be able to see a wide range of animals from various habitats around the world and observe first-hand how they can be grouped by their shared characteristics. I agree that they'd love it. But personally, zoos make me feel sad; I haven't been to one in years.

Karen: Yeah, they keep animals in those small enclosures where they can't roam free. I think we should be setting an example and prioritizing the well-being of animals rather than presenting them as something to be put in cages and studied.

Maddie: But zoos serve an important educational purpose. Our students can see and learn things about animals they'd never know from just reading a textbook.

Karen: As teachers, we've also got to consider the ethics of keeping animals in zoos.

Maddie: Don't you think that zoos also contribute to conservation efforts? If it weren't for them, animals like the red wolf and the California condor would be extinct.

Iwan: That's a fair point, but I just think there are other ways to support conservation efforts that don't involve keeping animals in captivity.

Karen: Yeah, there are non-profit organizations that promote sustainable tourism by allowing people to see animals in their natural ecosystems while using tourist dollars to protect them.

Iwan: And zoos seem to only showcase certain animals that are popular or cute while neglecting others. Many animals in zoos aren't endangered at all.

Maddie: I'm pretty sure Greyson has a solid policy on conservation, but you've convinced me to rethink.

Iwan: A compromise might be to visit the Bloom Sanctuary. It rescues and rehabilitates exotic animals that have been kept as pets and then mistreated or abandoned. They provide a lot more space for animals to live in, too.

Karen: I like that idea. Plus, we can still learn about different animals and support conservation efforts without contributing to the problem.

Maddie: That's quite a distance from here, though. Do you know of anything more local?

Karen: I've always wanted to visit the Indigenous Mammal Center. It's a place that works to rehabilitate and release injured local wildlife. Students won't see anything exotic there, and they might complain that it's boring, but won't it be good for them to find out more about the wildlife that's right around us?

Maddie: Getting students excited about area wildlife is an uphill battle at times, but seeing the animals up close might help. I like this idea!

Iwan: Great! Let's do it!

5. According to the dialogue, what is **NOT** mentioned by Maddie as a reason to visit a zoo?
- ア. Zoos help to protect animals that struggle to do well in the wild.
 - イ. It has been a long time since they last went on a similar trip.
 - ウ. Students find this kind of school trip destination fun to visit.
 - エ. The science teachers have been covering related content in class.
6. According to the dialogue, what is one reason to avoid going to the zoo for a school trip?
- ア. Zoos increase the likelihood of a range of native animals becoming extinct.
 - イ. There are more ethical options to visiting the zoo where students can still learn similar things.
 - ウ. It is difficult for students to study animals that are living in cages.
 - エ. Zoos exhibit endangered animals, not ones popular with students.
7. According to the dialogue, which of the following statements is Karen most likely to agree with?
- ア. Tourism in wild areas is a problem and we should make every effort to ban it completely.
 - イ. Tourist organizations damage ecosystems by exploiting animals for their own profit.
 - ウ. Tourists provide zoos with much-needed income that can be used to protect local wild habitats.
 - エ. Tourism benefits wild animals when there is a balance between profit and environmental care.
8. Which kind of place are the three teachers most likely to choose after this dialogue?
- ア. a zoo with a solid policy on conservation
 - イ. a rehabilitation center for neglected pets
 - ウ. a center that rescues local wild animals
 - エ. a place to see animals from all around the world
9. When Maddie says, "an uphill battle," she most likely means _____.
- ア. a difficult task
 - イ. an abstract concept
 - ウ. an interesting idea
 - エ. a physical exercise

5 次の問1～問4の英文を読み、話の流れに沿って意味が通るように並べ替えた場合、最も適切なものはどれか。それぞれア～エの中から一つ選びなさい。

- 問1
1. It is made from the bitter seeds of the cacao tree, called cocoa beans, which are fermented and roasted to enhance their flavor.
 2. Today, however, more than 40% of the world's production of cocoa takes place in West Africa, and it is said that around 50 million people depend on this industry for their livelihoods.
 3. Used in a variety of desserts, cakes, cookies, candies and pastries, chocolate is, without a doubt, one of the most popular foods on the planet.
 4. The consumption of these beans dates back thousands of years to the Mayan and Aztec civilizations in what are now Central and North America, respectively.

ア. 3 → 1 → 2 → 4 イ. 3 → 4 → 1 → 2

ウ. 3 → 1 → 4 → 2 エ. 3 → 4 → 2 → 1

- 問2
1. Linguists continue to debate whether they should be categorized as languages or dialects.
 2. There are also as many as 300 variants of the language spoken in China.
 3. Either way, it is feared that many of them will become extinct in the future.
 4. Standard Chinese, the official language of the People's Republic of China, is spoken by over 90% of the country's population.

ア. 4 → 2 → 1 → 3 イ. 4 → 3 → 1 → 2

ウ. 4 → 2 → 3 → 1 エ. 4 → 3 → 2 → 1

- 問3
1. Due to this increase in speed, quantum computing has the potential to solve problems that classical computers would take too long to solve, such as simulating complex chemical reactions or cracking encryption codes.
 2. A traditional bit can only have a value of either 0 or 1, while a qubit can have a value of 0, 1, or a superposition of both states at the same time.
 3. Quantum computing uses quantum bits, or "qubits" instead of traditional bits to store and process information.
 4. This concurrence of qubits allows quantum computers to perform certain calculations much faster than traditional computers can.

ア. 3 → 1 → 2 → 4 イ. 3 → 2 → 1 → 4

ウ. 3 → 1 → 4 → 2 エ. 3 → 2 → 4 → 1

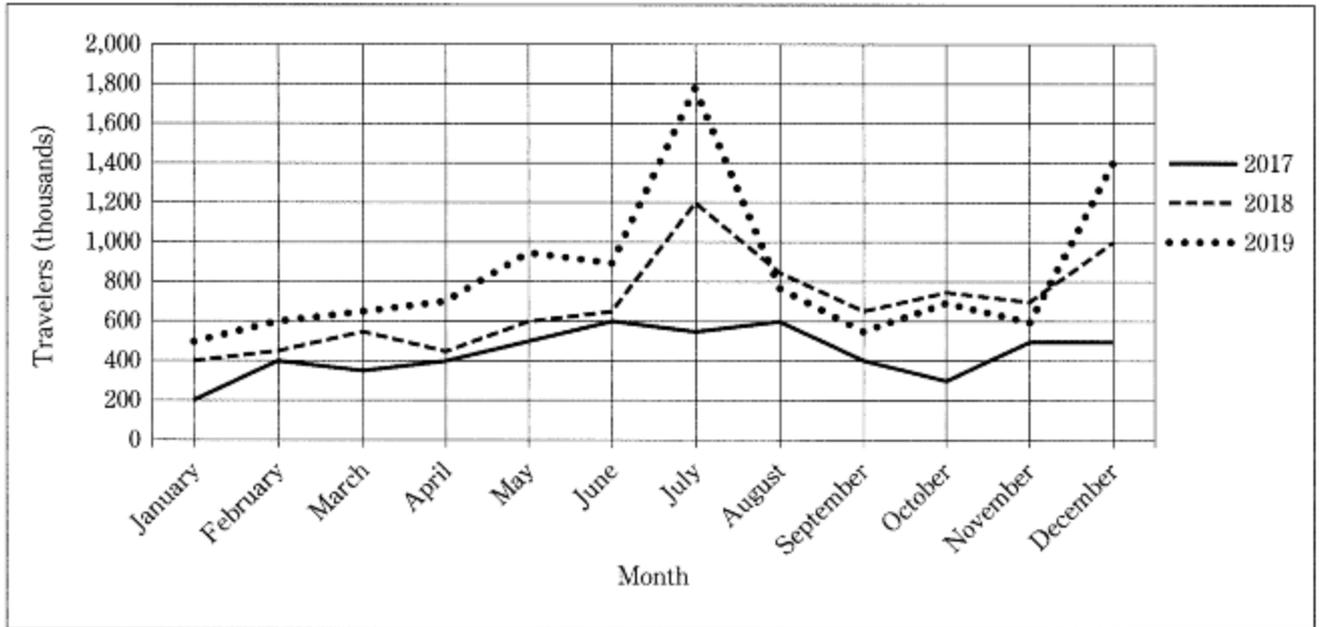
- 問4
1. They may also apply scientific methods and principles to investigate claims and seek to identify and address errors in reasoning or evidence.
 2. As such, a defining demand of skeptics is that, when they find such errors, they be willing to change their beliefs.
 3. Skeptics often challenge claims that lack evidence or logical support, and they strive to avoid accepting beliefs that are based solely on tradition, authority, or personal experience.
 4. Skepticism is a philosophical position that emphasizes critical thinking, questioning, and careful evaluation of beliefs and claims.

ア. 4 → 1 → 2 → 3 イ. 4 → 3 → 1 → 2

ウ. 4 → 1 → 3 → 2 エ. 4 → 3 → 2 → 1

- 6 次のグラフを見て、英文の空所(1)～(4)に入る最も適切なものを、それぞれア～エの中から一つ選びなさい。

Recreational Domestic Travelers in Country X (2017–2019)



—— 上記のグラフは架空のものです ——

The above graph tracks the number of recreational domestic travelers in Country X in 2017, 2018, and 2019. Overall, we can see how the number of domestic travelers tended to increase over the three years. One reason was that foreign exchange rates during this period made going abroad unattractive for many travelers. The number of travelers in any given month in 2019 was (1) the number in the same month in 2017. Comparing 2017 with 2019, the largest difference in the number of travelers in any given month was over one million, recorded in (2). The lowest number of domestic travelers per month in 2018 was (3). (4) 2019, there were fewer travelers than there had been in the same months of 2018. The Tourism Board of Country X is now looking into reasons for this.

- | | | | |
|---------------------------------------|--------------------------------|----------------|--------------|
| (1) ア. half of | イ. the same as | ウ. higher than | エ. double |
| (2) ア. March | イ. May | ウ. July | エ. September |
| (3) ア. 200,000 | イ. 300,000 | ウ. 400,000 | エ. 500,000 |
| (4) ア. For four consecutive months in | イ. At the beginning and end of | | |
| ウ. In six different months of | エ. Throughout | | |

7

次の英文を読み、下線部(1)と(2)を日本語に訳しなさい。

If you feel that your arms have minds of their own and sometimes act without your brain having to direct them, you might be an octopus! Each of an octopus's arms has touch and taste receptors and a cluster of neurons that acts like an independent brain, in addition to the central brain in its head that coordinates them all. Scientists confirmed this with an experiment where an octopus could obtain food by reaching through a maze designed so that its arm would have to reach out of the water, where its sensory receptors would not function. Useless though⁽¹⁾ the senses of touch and taste were, it was possible for the central brain to guide the arm to the reward that the eyes could see through the transparent walls. With so many brains, it should come as no surprise that the octopus shows a high degree of intelligence. Not only is the octopus one of the rare animals that can distinguish the faces⁽²⁾ of individuals outside its own species, it will go so far as to play pranks on humans. At the University of Otago in New Zealand, for example, one octopus squirted water at a particular staff member every time she passed the tank. We can only wonder whether the researcher had offended the octopus in some way or whether it was just being playful.

8

次の文を読み、下線部(1)と(2)を英語に訳しなさい。

It used to be thought impossible to read a person's mind, but that may be changing. Neuroscientists have conducted an experiment designed to convert brain activity into text. Researchers used functional magnetic resonance imaging (fMRI) to scan the brains of participants asked to listen to podcast stories. The scanner recorded blood oxygen levels in areas of the participants' brains. The researchers used this data to train AI to match certain brain activity patterns with specific series of words. The accuracy of these word series was then tested in further rounds. The AI did not generate the same words the participants had heard, but it showed that it had understood the gist. さらに驚くべきことは、実験参加者が音声無しの動画を観た際、その動画のおおよその描写が⁽¹⁾ その人工知能によって生成されたことである。 This proved that the AI could transcribe not only what the participants were hearing but their thoughts about what they were seeing. 研究者たちは、これらの結果が脳卒中などの理由で⁽²⁾ 話す力を失った患者が自己表現するのに役立つと信じている。

