

# 英 語

## 問題冊子 2

注 意

「問題冊子 2」に印刷されている問題は、**2** から **4** までで、2 ページから 13 ページまであります。

2

次の対話の文章を読んで、あとの各問に答えよ。

(\*印の付いている単語・語句には、本文のあとに〔注〕がある。)

*Ken and Aya are high school students. One day in June, they visited the ABC Museum and they saw a \*notice of \*internships there. They were interested, so they decided to work there at the end of August. Today is their first day at work. Mr. Suzuki, one of the staff, is finishing the \*orientation for them.*

*Mr. Suzuki:* Do you have any questions?

*Ken:* No, I don't. But there 【 remember / are / to / things / many / so 】. Do you remember the first thing we have to do in the morning, Aya?

*Aya:* Yes, I do. When we arrive in the morning, we have to show our \*ID cards at the front gate.

*Ken:* Oh, yes. I'll remember that.

*Mr. Suzuki:* Now, Ken and Aya, you'll work with one of our staff, Ms. Hara.

*Ken, Aya:* Good morning, Ms. Hara.

*Ms. Hara:* Nice to meet you both. I'll tell you what to do today. First, I want you to clean the \*showcases over there. You can't open them because there are very important \*collections in them. The collections are old \*works of art. \*From tomorrow on, you're going to clean the showcases every morning before visitors come.

*Aya:* I see. That \*teacup and my father's teacup look the same. But they are different, aren't they?

*Ken:* It is difficult to know the differences.

*Ms. Hara:* Yes, knowing the differences takes many years. Next, both of you are going to work at the \*entrance from this afternoon on. You'll check the visitors' tickets there. We have two kinds of tickets — for \*adults and children. When you get the right ticket from each visitor, you should say hello and smile. Some visitors may ask some questions. Do you know what they are?

*Ken:* For example, "Who made that teacup?"

*Ms. Hara:* No, not like that. Something like "Where is the \*restroom?" or "Do you have a gift shop?"

*Ken:* Those questions are easy, but we can't answer them if we don't know about such places.

*Aya:* Yes! We have to know where things are in the museum.

*Ms. Hara:* That's right. So, after 2, I'll show you around the museum in the morning and I'll answer your questions. That will help you.

*Ken:* Now I understand that there are many things to do for the visitors.

*On their first day in the classroom at school after the summer vacation, Ken and Aya are talking with Edward, their classmate from the UK.*

*Edward:* How was your internship at the ABC Museum, Ken?

*Ken:* Great. We really enjoyed working there.

*Edward:* How long did you work, Aya?

*Aya:* For four days.

*Edward:* What's the most important thing you learned, Aya?

*Aya:* I learned that the collections there are very important. There are no other things like them in the world.

*Edward:* That's a good thing to know. How about you, Ken?

*Ken:* <sup>(3)</sup> I learned that we had to communicate with the visitors. At the museum, I met many people. Some of them knew about history very well. Some of them were not interested in history. But I wanted all of them to enjoy their time at the museum, so I tried my best to talk to them and answer their questions.

*Aya:* By the way, have you ever done any internships in the UK, Edward?

*Edward:* Of course, I have. I worked at a \*publishing company.

*Ken:* What did you do there?

*Edward:* I worked with a journalist, Mr. Brown. He was writing a story about a famous tennis player.

*Aya:* How did you help Mr. Brown?

*Edward:* Well, one day, we went to the player's home to \*interview him. Mr. Brown told me to \*take notes of the things the player said. Mr. Brown used some of my \*notes to write the story.

*Ken:* Wow! That sounds great.

*Aya:* <sup>(4)</sup> What did you learn from the experience?

*Edward:* Well, Mr. Brown communicated with the player very well, so I learned that I needed to have good skills in communication.

*Ken:* Do you want to be a journalist in the future?

*Edward:* Yes. I'd like to work for a publishing company in Japan, not in the UK, because I want to learn more about Japan. How about you, Ken and Aya?

*Ken:* I'm not sure right now. I'm interested in science, so working in a science museum is one choice.

*Aya:* Working in a museum has been my dream since I was a child because my parents have often taken me to museums to see a lot of things. So I became interested.

*Edward:* I think our internships helped all of us. We thought about our future jobs and learned about the importance of communicating with people.

*Aya:* I hope more high school students will do internships in the future.

〔注〕 notice 掲示	internship 職場体験
orientation オリエンテーション (事前の説明会)	
ID card 身分証明書	showcase 展示ケース
collection 収蔵品	work of art 芸術作品
from ~ on ~から先	teacup 茶碗
entrance 入口	adult 大人
restroom トイレ	publishing company 出版社
interview インタビューする	take notes of ~ ~のメモを取る
note メモ	

〔問1〕 But there 【 remember / are / to / things / many / so 】. について、本文の流れに  
<sup>(1)</sup>合うように、【       】内の単語を正しく並べかえるとき、【       】内で2番目と5番目  
 にくる単語の組み合わせとして正しいものは、次のうちではどれか。

- |            |            |          |          |
|------------|------------|----------|----------|
| ア 2番目 many | 5番目 to     | イ 2番目 to | 5番目 many |
| ウ 2番目 are  | 5番目 things | エ 2番目 so | 5番目 to   |

〔問2〕 本文の流れに合うように、 の中に入る最も適切なものは、次のうちでは  
 どれか。

- ア you clean the showcases
- イ you finish working at the entrance
- ウ you answer some questions from visitors
- エ you learn about the collections

〔問3〕 That's a good thing to know. を、次のように書き表すとすれば、 の中  
<sup>(3)</sup>に、下のどれを入れるのがよいか。

It is good to know .

- ア doing internships at the ABC Museum is a lot of fun
- イ we can find museums like the ABC Museum around the world
- ウ the things collected by the ABC Museum are very important
- エ we can work at the ABC Museum for four days

[問4] That sounds great. とあるが、このように Ken が言った理由を最もよく表しているの  
(4) は、次のうちではどれか。

- ア Edward wrote the story about the tennis player.
- イ Edward's notes were useful to the story Mr. Brown wrote.
- ウ Edward remembered the tennis player very well.
- エ Edward learned how to play tennis from Mr. Brown.

[問5] 次の質問に対する答えとなるように、下の  の中に入る最も適切な連続する2語を本文中から抜き出せ。

(Question) What did Ken, Aya, and Edward think about because of their internships?

(Answer) They thought about their .

[問6] 本文の内容と合っているものを、次のア～カの中から一つ選べ。

- ア Students who do internships at the ABC Museum don't have to go through the front gate of the museum.
- イ Actually, the teacup Aya found in the ABC Museum was the one once used by her father at home.
- ウ Ken and Aya's main job was to sell tickets to the visitors at the entrance of the ABC Museum.
- エ Ken tried communicating with the visitors because he wanted them to enjoy the ABC Museum.
- オ Edward would like to go back to the UK and work as a journalist there in the future.
- カ The ABC Museum is a science museum, so it doesn't have any collections about history or art in it.

3

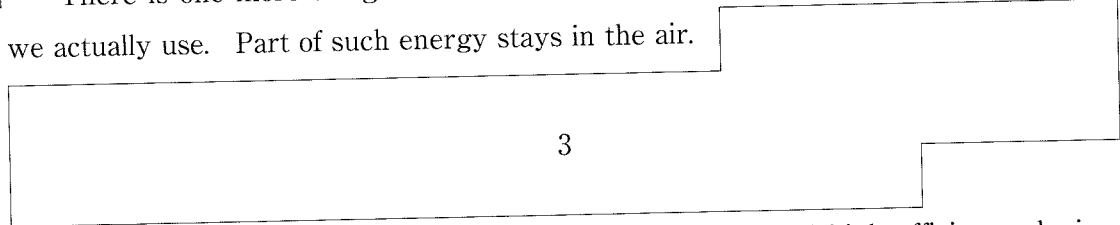
次の文章を読んで、あとの各問に答えよ。なお、[1]～[8]は段落の番号を表している。  
(\*印の付いている単語・語句には、本文のあとに〔注〕がある。)

- [1] The sea level is rising. The weather is changing. Some \*research says global warming is \*causing a lot of problems. We have to fight against these problems. The research also says global warming is caused by CO<sub>2</sub> \*emissions. CO<sub>2</sub> is produced when we burn \*fossil fuels.
- [2] How can we reduce the use of fossil fuels? By using high \*efficiency \*devices and systems when we use fossil fuels. Think about \*hybrid cars and LED lights. When we drive hybrid cars, we need only about half the fuel of \*regular cars. When we use LED lights, we use only about half the electricity of regular lights. This means we can save energy by choosing devices with high efficiency.
- [3] What other high efficiency devices and systems can we use to save more energy and reduce the use of fossil fuels? \*According to research from 2014, in Japan 88% of electricity is made by burning fossil fuels at \*thermal power plants. We should use high efficiency devices there to make as much electricity as we can. Then after making electricity, we should not waste the \*heat energy that is left. We can use this heat energy to produce things in \*factories, and to \*run the \*air-conditioning and \*hot water supply in buildings and houses near the power plants. Even after this, we can use the heat energy for swimming pools, and in farms to grow fruits and vegetables. 【① called ② is ③ of ④ this way ⑤ How ⑥ What ⑦ using energy】? It is called (1) cascade use. In this way, through the use of high efficiency devices and cascade use at thermal power plants, we will not have to use as much fossil fuel as now. You can find cascade use of power plants in many countries in Europe, but not so much in Japan.
- [4] Next, how can we improve energy efficiency in houses, offices, and stores? In these places, more than half of the energy is used for air-conditioning and hot water supply. Can we save energy without changing our life style? Yes, one answer is to use heat \*pumps. A heat pump is a high efficiency device that uses heat energy from the air, rivers, and buildings. Maybe many of you have never heard of heat pumps. However, you can find heat pumps in all kinds of places — air-conditioning, hot water supply, \*refrigerators, and so on.

[5] How do heat pumps work? When we open the refrigerator, warm air goes in. Even when it is closed, heat continues to go in. The refrigerator is a device that moves heat from inside to outside and keeps the air inside cold. A heat pump is a system that moves heat from a cold place to a hot place. In nature, heat moves from a hot place to a cold place. <sup>(2)</sup> Imagine you have a cup full of hot water. Heat will move away from the cup, and the water becomes cold after a while. However, heat pumps take heat from a colder place and move it to a warmer place. This is just like a water pump that moves water from a lower place to a higher place. Because of this, a heat pump is called a "pump." Water pumps move water and heat pumps move heat.

[6] Why are heat pumps so great? Regular electric heaters can produce only \*one unit of heat energy from one unit of electric energy. However, heaters using heat pumps can produce six units of heat energy. Here, by using one unit of electric energy, heat pumps take five units of heat energy from the air, and the one unit of electric energy used to do this changes into one unit of heat energy. So, heaters with heat pumps can produce six \*times more heat energy than regular ones.

[7] There is one more thing. The sun is sending us 15,000 times more energy than we actually use. Part of such energy stays in the air.



[8] With cascade use of energy at thermal power plants and high efficiency devices like heat pumps, we can save a lot of energy. Because we don't have to use so much fossil fuel, we can also reduce CO<sub>2</sub> emissions and \*slow down the increasing temperature. These are some of the things we can do to fight against global warming.

- |  |                      |
|--|----------------------|
| [注] research 調査                          | cause 引き起こす          |
| emission 排出                              | fossil fuel 化石燃料     |
| efficiency 効率                            | device 装置            |
| hybrid car ハイブリッド車 (ガソリンエンジンと電気モーターで動く車) |                      |
| regular 通常の                              | according to ~ ~によると |
| thermal power plant 火力発電所                | heat 熱               |
| factory 工場                               | run 機能させる            |
| air-conditioning 空調                      | hot water supply 給湯  |
| pump ポンプ                                 | refrigerator 冷蔵庫     |
| one unit of ~ 1つの単位の~                    | ~ times ~倍           |
| slow down 遅らせる                           |                      |

〔問1〕 【① called ② is ③ of ④ this way ⑤ How ⑥ What ⑦ using energy】? について、  
<sup>(1)</sup>本文の流れに合うように、【           】内の単語・語句を正しく並べかえるとき、1番目と  
 3番目にくる単語・語句の組み合わせとして正しいものは、次のア～カのうちではどれか。  
 ただし、【           】内には不要な単語が1語含まれている。

- ア 1番目 ⑤ How      3番目 ① called  
 イ 1番目 ⑤ How      3番目 ⑦ using energy  
 ウ 1番目 ⑤ How      3番目 ④ this way  
 エ 1番目 ⑥ What     3番目 ① called  
 オ 1番目 ⑥ What     3番目 ⑦ using energy  
 カ 1番目 ⑥ What     3番目 ④ this way

〔問2〕 In nature, heat moves from a hot place to a cold place. について、この内容を具体的<sup>(2)</sup>に説明している1文が下線部の後ろにある。その1文の最初の2語を本文中から抜き出せ。

〔問3〕 本文の流れに合うように、3の中に、次のA～Eの文を入れるとき、その最も適切な順番を表しているものは、下のア～カのうちではどれか。

- A After some time, all this heat energy goes up and it is lost in space.  
 B For this reason, a heat pump is a great device for Japan, a country with only a few ways to make its own energy.  
 C Heat pumps collect such heat energy from the air.  
 D So, with heat pumps, it is not lost and it can be used.  
 E When electricity or oil is used, much of its energy also stays in the air as heat energy.

- ア C→A→E→B→D  
 イ E→A→C→D→B  
 ウ C→E→A→B→D  
 エ E→A→D→B→C  
 オ C→A→E→D→B  
 カ E→C→A→B→D



〔問4〕 [2], [3]の段落の内容に一致するものを, 次のア～オの中から一つ選べ。

- ア High efficiency devices like hybrid cars and LED lights don't need any energy, but instead, they produce energy.
- イ Hybrid cars and LED lights are the only examples of high efficiency devices and systems in the world today.
- ウ Even when we use high efficiency devices at thermal power plants, we cannot reduce the use of fossil fuels anymore.
- エ Even after making electricity at thermal power plants, we can still save more energy by using heat energy produced there.
- オ Cascade use of energy is spread not only in countries in Europe, but also in many cities all over Japan.

〔問5〕 [4], [5], [6]の段落の内容に一致するものを, 次のア～オの中から一つ選べ。

- ア Changing our life style is the only way to improve energy efficiency in houses, offices or stores, and to fight against global warming.
- イ The refrigerator is a device that moves heat from a hot place to a cold place, so it can keep cold air inside.
- ウ Maybe you have never heard of heat pumps, and in fact they cannot be found in so many devices or systems in your daily life.
- エ When we think about water pumps and heat pumps, we can say that pumps move things against the natural movement of things.
- オ When we use one unit of electric energy, we can produce just five units of heat energy with heaters using heat pumps.

〔問6〕 次の文章は本文の内容について書かれたものである。  の中に入る最も適切な連続する3語を本文中から抜き出せ。

Heat pumps can get heat energy not only from the air, but also from other places like rivers and buildings. If we use heat pumps, we can save heat energy that we are wasting now. So, we can say a heat pump is a  to fight against global warming.

4 次の文章を読んで、あとの各問に答えよ。

( \* 印の付いている単語・語句には、本文のあとに〔注〕がある。)

Kei is a third-year high school student in a big city. Before the summer of her second year, she was not especially interested in anything and had no plans for the future. She 【 ① did ② find ③ she really ④ to ⑤ trying ⑥ wanted ⑦ was ⑧ what 】 to do. <sup>(1)</sup> She has a grandmother who lives in a house with a beautiful garden in a small village in the \*countryside.

One early summer day, Kei and her mother were visiting her. When they arrived, Mr. Yamada, a \*beekeeper who lives next door, was also there. Kei asked, “\*Bees are dangerous, aren’t they? They will \*sting you.” “No, they won’t if you don’t try to hurt them,” answered Mr. Yamada. Kei thought, “ (2-a) ”

To learn more about bees, Kei decided to help Mr. Yamada with his bee farm during the summer. On the first day, Mr. Yamada took Kei to his \*beehives. When Kei looked up, \*thousands of bees were flying around. Mr. Yamada asked, “ (2-b) ” Kei shook her head, and said no. Mr. Yamada said, “Thousands of bees make a family. Bees are very important because 33% of all food grown by farmers is gotten only after \*pollination by \*insects, and 80% of these insects are bees. We humans cannot live without bees.” On the second day, when she opened a beehive, a bee almost stung her finger. Mr. Yamada said, “Of course, it hurts when a bee stings you, but the bee will die. They sting not only to protect themselves, but also to protect their families.”

On the last day, Mr. Yamada brought Kei to a beehive and said, “Open the beehive and put your hand into it.” Mr. Yamada was watching her <sup>(3)</sup> \*quietly. She slowly put her hand into the beehive. She cried out, “It’s warm!” Mr. Yamada said, “Yes, they are warm, because they are living. They are just like us. Their lives are important, too.”

When Kei returned to school in fall, she wanted to study more about bees, and she decided to start a bee club. She found a teacher, Mr. Minami, and three more members — two boys, Satoshi, Wataru, and a girl, Aya. They started to learn about bees and the best environment for bees. On the corner of the school ground, they built beehives. Mr. Yamada gave them two bee families. Everything was going well. Then one day, after school, Kei said to the other members, “We have to plant new flowers around the beehives, and I want you to help.” The two boys said, “Why? There are already so many. Sorry, but we can’t help today.” “But bees can <sup>(4)</sup> get honey only from \*certain flowers,” said Kei.

Even after that day, the boys sometimes left without giving the girls any help. The girls went to Mr. Minami for advice. Mr. Minami said, “Did you talk with the boys about it? You are members of the same team, right? What is important for teamwork?”

“Communication?” Kei answered. “Then what should you do with the boys now?” said Mr. Minami. “We should talk more,” said Kei. “ (2-c) ” asked Aya. “We should make two pairs to take care of the two bee families. Satoshi and I make one pair, and Aya and Wataru the other. This way, we, the girls, can talk more with the boys. When we face a problem, we should always talk about it,” said Kei.

One afternoon, when Aya opened a beehive, something was wrong. The bees were moving very slowly. Aya ran to Mr. Minami and all the members met and worked together. Satoshi \*searched the Internet to find why they were moving slowly. Kei called Mr. Yamada. They found that \*heat sometimes \*causes great \*stress to bees. The members ran in all \*directions to find a cooler place for the bees and checked the temperatures there. In the end, they were able to find a good place under a big tree behind the school building. Their 5 saved the bees.

The next summer, the club members were learning how to \*bake \*honey cookies from Mr. Yamada. “I want to live in the countryside someday like my grandmother,” said Kei. Mr. Yamada said, “I’m happy to hear that, because many young people are leaving the village. This is a big problem now.” Aya asked, “ (2-d) ” Mr. Yamada said, “There aren’t many jobs in the countryside for young people.”

The members thought about the problem and decided to help. Aya will start a cookie shop in the future and sell honey cookies. Satoshi is going to study \*tourism and will work for the local government. Wataru will learn more about \*beekeeping. Kei also wants to help. She is going to college to learn how to make a better environment for people and bees in small villages.

Through beekeeping, all the members learned a lot about beekeeping and teamwork. They also learned about the problems small villages face. Now they all have their goals for the future and are going to work hard to reach them.

〔注〕 countryside 田舎  
bee ハチ  
beehive ハチの巣  
pollination 受粉  
quietly 静かに  
search 探す  
cause 引き起こす  
direction 方角  
honey ハチミツ  
beekeeping 養蜂

beekeeper 養蜂家  
sting 刺す（過去形は stung）  
thousands of ～ 何千もの～  
insect 昆虫  
certain 特定の  
heat 熱  
stress ストレス  
bake 焼く  
tourism 観光産業

〔問1〕 【① did ② find ③ she really ④ to ⑤ trying ⑥ wanted ⑦ was ⑧ what】について、  
 (1) 本文の流れに合うように、【           】内の単語・語句を正しく並べかえるとき、2番目と  
 6番目にくる単語・語句の組み合わせとして正しいものは、次のア～カのうちではどれか。  
 ただし、【           】内には**不要な単語**が1語含まれている。

- |   |     |          |     |              |
|---|-----|----------|-----|--------------|
| ア | 2番目 | ⑤ trying | 6番目 | ③ she really |
| イ | 2番目 | ⑤ trying | 6番目 | ① did        |
| ウ | 2番目 | ⑥ wanted | 6番目 | ③ she really |
| エ | 2番目 | ⑥ wanted | 6番目 | ⑦ was        |
| オ | 2番目 | ④ to     | 6番目 | ③ she really |
| カ | 2番目 | ④ to     | 6番目 | ① did        |

〔問2〕  ～  の中には、それぞれ次の(A)～(D)のうちのいずれかの文が入る。それぞれに入る文を並べた組み合わせとして正しいものは、下のア～カのうちではどれか。

- (A) But how?  
 (B) But why?  
 (C) Are you afraid?  
 (D) That's very interesting!

- |   |                                    |      |                                    |      |                                    |      |                                    |     |
|---|------------------------------------|------|------------------------------------|------|------------------------------------|------|------------------------------------|-----|
| ア | <input type="text" value="(2-a)"/> | (B), | <input type="text" value="(2-b)"/> | (A), | <input type="text" value="(2-c)"/> | (C), | <input type="text" value="(2-d)"/> | (D) |
| イ | <input type="text" value="(2-a)"/> | (B), | <input type="text" value="(2-b)"/> | (C), | <input type="text" value="(2-c)"/> | (A), | <input type="text" value="(2-d)"/> | (D) |
| ウ | <input type="text" value="(2-a)"/> | (B), | <input type="text" value="(2-b)"/> | (D), | <input type="text" value="(2-c)"/> | (C), | <input type="text" value="(2-d)"/> | (A) |
| エ | <input type="text" value="(2-a)"/> | (D), | <input type="text" value="(2-b)"/> | (B), | <input type="text" value="(2-c)"/> | (C), | <input type="text" value="(2-d)"/> | (A) |
| オ | <input type="text" value="(2-a)"/> | (D), | <input type="text" value="(2-b)"/> | (C), | <input type="text" value="(2-c)"/> | (B), | <input type="text" value="(2-d)"/> | (A) |
| カ | <input type="text" value="(2-a)"/> | (D), | <input type="text" value="(2-b)"/> | (C), | <input type="text" value="(2-c)"/> | (A), | <input type="text" value="(2-d)"/> | (B) |

〔問3〕 “Open the beehive and put your hand into it.” とあるが、このように Mr. Yamada  
 (3) が言った理由を次のように書き表すとすれば、 の中に、下のア～オのどれを入れるのがよいか。

Mr. Yamada wanted Kei to know .

- ア bees will sting if she puts her hand into the beehive.  
 イ bees are warm because they are different from humans.  
 ウ even when bees sting, it does not hurt so much.  
 エ bees are very important but we can live without them.  
 オ bees have life and are living just like humans.

〔問4〕 Why? の内容を、次のように語を補って書き表すときに、( ) に入る適切な語を  
(4) 答えよ。ただし、それぞれの ( ) には、1 語ずつ入る。

Why do ( ) ( ) ( ) ( ) new flowers?

〔問5〕 本文の流れに合うように、5 の中に入る最も適切な1語を本文中から抜き出せ。

〔問6〕 本文の内容と合っているものを、次のア～オの中から一つ選べ。

ア When Kei returned to school in September, she decided to join the bee club because Aya asked her to do so.

イ Bees are a very friendly insect and do a lot for humans. They sting only when they need to protect their own life.

ウ When the bee club members faced a problem as a team, Mr. Minami helped them by telling them everything to solve the problem.

エ When the bees became weak, all the club members worked together and learned that stress caused by heat is sometimes a problem to bees.

オ When Mr. Yamada told the club members about the problem his village had, he wanted to say that only old people lived in his village.

〔問7〕 この文章を読んで、次のような質問をされたらどのように答えるか。

①, ②の答えとなる内容を必ず含めて30語以上45語以内の英文で書け。二つ以上の英文になってもかまわない。下の〔例〕のように、「,」「.」などは語数に含めない。短縮形は1語と数える。

If you live in a small village and decide to improve life there, ① what will you do and ② why will you do that?

〔例〕 I said to my mother, "I'll study English  
harder." She said, "Really?" I said, "Yes!"