

# 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 **3** までで、2 ページから 15 ページまであります。

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次の対話の文章を読んで、あとの各問に答えなさい。

( \* 印の付いている単語・語句には、本文のあとに〔注〕がある。 )

*Satoru is in his second year of high school and lives in Tokyo. He and his brother Hitoshi are on an overseas study program during summer vacation and visiting Finland. Emma, a university student in \*Helsinki, stayed in Tokyo with Satoru's family when she was a junior high school student. Today, Satoru and Hitoshi are visiting her in Helsinki.*

*Satoru:* Hello, Emma. It's been a while!

*Hitoshi:* Hi, Emma. It's good to see you again.

*Emma:* Satoru! Hitoshi! It's nice to see you again. You both have grown a lot.

*Satoru:* Have we?

*Emma:* I hope you remember all the fun we had while I was staying with you in Tokyo.

*Hitoshi:* Of course we do. We went all around Tokyo by train.

*Emma:* Both of you loved train trips very much. (1)-a

*Hitoshi:* Less than before, but, yes, we sometimes enjoy them.

*Emma:* The \*public transportation network in Tokyo is perfect. But more than that, we enjoyed seeing cherry blossoms from a \*tram window. They were so pretty that I can't forget them.

*Satoru:* Cherry blossoms are a symbol of spring in Japan.

*Hitoshi:* I remember that fantastic view, too.

*Satoru:* You know, one of the things we want to try here is to go around the town by tram.

*Emma:* Really? I've been thinking of taking you on a tram trip since I heard you were going to visit \*Suomi.

*Satoru:* Suomi. Finland is called Suomi in \*Finnish.

*Emma:* That's right. Well, if you want to ride a tram, we can go now. But first, you have to get tickets. You can get them from a ticket machine.

*Satoru:* Sure. Let's go.

*Hitoshi:* Yes, let's.

*The three students get on a tram at a nearby stop.*

*Satoru:* Wow, how exciting!

*Emma:* You can also enjoy the town view from the window.

*Hitoshi:* The town is beautiful. The view of the old city is amazing.

*Emma:* Yes. The Suomi people are always trying hard to \*keep up the traditional beauty of the city.

*Hitoshi:* And it also looks nice with trams, I think.

*Emma:* It really does. Trams also play an important role in the public transportation system of the city.

*Satoru:* (1)-b

*Emma:* Maybe the service started about 130 years ago. There were no stops at that time, and you could get onto the tram anywhere along the line.

*Hitoshi:* When we got on this tram, there was no ticket gate at the stop. There was no \*fare box on the tram, either. That's interesting.

*Satoru:* And nobody shows a ticket to the driver.

*Emma:* I know that really looks strange to you. If you have a smartphone with you, you can get a ticket on a \*software application.

*Hitoshi:* Do you have to show your ticket on your smartphone?

*Emma:* No. If you get a ticket before you get on the tram, that will be enough. You don't have to do anything else. The software application has other services, too.

*Satoru:* (1)-c

*Emma:* You can see how to get to the place you want to visit, check out operation information, and use \*bike sharing.

*Hitoshi:* I know. The service is called “\*MaaS,” right?

*Emma:* You know a lot, Hitoshi.

*Satoru:* We are very curious about trams.

*Hitoshi:* I hear Finland is famous for its unique system of using the Internet to make public transportation a more effective service.

*Emma:* Yes. People get together various kinds of information on public transportation, from buses, trains, and taxis to \*ridesharing or bike sharing, and the information helps people move around easily and quickly.

*Satoru:* People here also welcome changes to make their lives more convenient. By the way, Emma, where are we going today?

*Emma:* Well, I want to take you to a museum. You'll see many things about trams there.

*Hitoshi:* Wonderful! I want to learn more about trams.

*Emma:* You can learn about the history of trams in Helsinki, too.

*Hitoshi:* Sounds exciting.

*Emma:* Here we are. (1)-d

*Satoru:* Oh, OK.

*After that, the three students go to the museum. Inside the museum, several tram cars are on display.*

*Satoru:* Look. A horse is pulling a tram on \*rails.

*Emma:* It's the oldest kind of tram. The horses were well trained, and they could lead the tram without \*getting lost.

*Hitoshi:* The display shows there were originally two horse tram lines.

*Emma:* Yes. There used to be a building for keeping horses around here.

*Satoru:* I'm wondering which are older, trams or trains. Can you find anything about that on the display, Hitoshi?

*Hitoshi:* Just a moment. <sup>(2)</sup> I'm afraid I can't.

*Emma:* I guess train service started in the U.K. around 1820.

*Hitoshi:* What pulled the trains at that time?

*Emma:* \*Steam power. It was introduced in 1804. It improved train service very much.

*Hitoshi:* Oh, that's \*steam locomotives, right? I learned about \*the Industrial Revolution in a social studies class, and the teacher talked about steam power.

*Emma:* Yes.

*Satoru:* How about trams in Helsinki?

*Emma:*

*Satoru:*

*Emma:*

*Satoru:*

*Emma:*

*Satoru:* Someday, I want to learn more about the start of train service, too.

*Emma:* The history of public transportation is one of my studies at university.

*Satoru:* That sounds interesting.

*Emma:* Yes, it really is. I want to work as an engineer to improve MaaS in Finland after graduation.

*Hitoshi:* Great.

*Satoru:* Look. We can see a video on the history of trams in Helsinki over there.

*Emma:* Yes. The video is starting. Let's go and watch it.

*After they watch the video, they start to talk about it.*

*Satoru:* The video was interesting. It is for children for the most part, but adults can also learn a lot from it.

*Hitoshi:* I was surprised that trams once disappeared. People started to think that they are valuable again. I am happy to hear that.

*Satoru:* I was surprised to learn that some people \*blamed trams for \*traffic jams.

*Hitoshi:* Me too! In fact, the streets were crowded because more and more people in Helsinki started to drive their own cars.

*Satoru:* I was happy when I saw trams on their own \*lanes after people started to admire the trams again, and traffic started moving without making the streets crowded.

*Hitoshi:* People of Finland should feel very proud of their trams.

*Satoru:* You are right. They look excellent on these town streets.

*Emma:* Tokyo trams look great with cherry blossoms, too.

*Hitoshi:* Yes. And I think .

*Emma:* Yes, I am happy that the city grew and there were more lines.

Hitoshi: Fantastic.

Emma: Now, in Helsinki, people are using MaaS, and some people think that someday people living in the city will not need cars.

Satoru: What a change!

Hitoshi: I want to learn more about MaaS here.

Satoru: Thank you for taking us here, Emma.

Hitoshi: We had a very good time. Thank you very much, Emma.

Emma: I'm very happy that you enjoyed our time together today.

〔注〕 Helsinki ヘルシンキ（フィンランドの首都）

public transportation network 公共交通網

tram トラム（路面電車）

Suomi フィンランド（フィンランド語）

Finnish フィンランド語

keep up 維持する                      fare box 料金箱

software application ソフトウェアのアプリ

bike sharing バイクシェア

MaaS マース（Mobility as a Serviceの略で、情報通信技術の発達を背景に生まれた次世代の移動サービスのこと）

ridesharing ライドシェア（情報通信技術を介して時間と車が空いている一般のドライバーが、移動サービスを求める乗客に対して、移動サービスを提供するもの）

rail レール

get lost 道に迷う

steam power 蒸気機関

steam locomotive 蒸気機関車

the Industrial Revolution 産業革命

blame ~ for... …を～のせいにする

traffic jam 交通渋滞

lane 車線

〔問1〕  ～  の中に、それぞれ次のア～カのどれを入れるのがよいか。ただし、それぞれの選択肢は一度しか使えないものとする。

ア How long are they?

イ We'll get off here.

ウ Let's turn off here.

エ Do you still like them?

オ How old are they?

カ Like what?

〔問2〕 <sup>(2)</sup> I'm afraid I can't. とあるが、この内容を最もよく表しているものは、次の中ではどれか。

ア I don't think that trains appeared earlier than trams.

イ I can't say that trams and trains started in the same year.

ウ Nobody can guess where the display of trains and trams is.

エ Nothing on the display tells me which are older, trams or trains.

〔問3〕 本文の流れに合うように、 ～  の中にそれぞれ英文を入れるとき、その組み合わせとして最も適切なものは、下のア～力の中ではどれか。

- ① Did horses still pull the trams then?
- ② It was around 1900.
- ③ No, the trams ran on electricity.
- ④ When the city grew, the trams became more popular.
- ⑤ Do you remember when that started?

ア	①	→	③	→	④	→	⑤	→	②
イ	①	→	③	→	⑤	→	②	→	④
ウ	③	→	①	→	④	→	⑤	→	②
エ	③	→	④	→	⑤	→	②	→	①
オ	④	→	①	→	③	→	⑤	→	②
カ	④	→	③	→	⑤	→	②	→	①

〔問4〕 本文の流れに合うように、 の中に英文を入れるとき、適切ではないものは、次の中ではどれか。

- ア trams in Helsinki play an important role in the city
- イ trams in Helsinki are a good way to go around the city
- ウ trams in Helsinki cause a lot of trouble to people in the city
- エ trams in Helsinki are wonderful symbols of the city

〔問5〕 次の文章はSatoruとHitoshiの2人が日本に帰国後、フィンランドでの滞在を踏まえて調べ学習をしたのち、作成したレポートの一部である。レポートの意味が通るようにするには、、にそれぞれどのような1語を入れるのがよいか。本文中に使われている語をそのまま用いて書け。ただし、、にはそれぞれ共通の1語が入る。

Both trains and trams run on rails, but they are quite different. Trains usually connect cities and make long trips, and trams are designed for short trips inside the city. Trains were originally pulled by horses. Then there were some important  after people invented steam power. Steam locomotives with greater carrying power  transportation and business between cities. Most trams, on the other hand, brought  to local transportation, and they  city life in the twentieth century. Modern trams offer fast and convenient transportation. Some tram companies encourage the use of public transportation by providing parking lots near the stops. In this way, they often play an important role in MaaS in the city. Trains and trams have different histories, but their importance will not decrease soon.

〔問6〕本文中でSatoruとHitoshiの2人が実際にトラムに乗るときに使ったチケットの購入方法に最も近いものは、次の中ではどれか。

ア



イ



ウ



エ



〔問7〕本文の内容に合う英文の組み合わせとして最も適切なものは、下のア～シの中ではどれか。

- ① Emma knew Satoru and Hitoshi's love for train trips before their visit to Helsinki.
- ② Emma told Satoru and Hitoshi that Finland and Suomi were different.
- ③ When trams started in Helsinki, they didn't have set places for stopping.
- ④ A software application gave information about the history of trams in Helsinki to Satoru.
- ⑤ Satoru and Hitoshi planned to visit the tram museum in Helsinki before getting on the tram.
- ⑥ Satoru didn't know much about the history of trams, because he wasn't interested in it.
- ⑦ Trams in Helsinki were popular in the past, but they are not today.
- ⑧ MaaS in Helsinki has changed how people live in the city.

ア	① ④	イ	① ⑧	ウ	② ⑤	エ	③ ⑦
オ	④ ⑦	カ	① ② ⑥	キ	① ③ ⑧	ク	① ⑤ ⑦
ケ	② ③ ⑦	コ	② ④ ⑥	サ	③ ⑤ ⑧	シ	③ ⑥ ⑧



3

次の文章を読んで、あとの各問に答えなさい。

( \* 印の付いている単語・語句には、本文のあとに〔注〕がある。 )

\*Agriculture is an important part of human life. It supports human health by providing food for people. People grow different kinds of \*crops for food. In Japan, farmers grow rice, vegetables, fruits, and many others. There is not enough land for \*farming in Japan, but people use it very well, and farmers in different \*regions grow different crops. The Tohoku region, for example, is famous for producing rice, and the Kanto region is famous for its vegetables. Some people may think of potatoes when they think of Hokkaido, and others may think of tomatoes when they hear “Kumamoto Prefecture.”

(1)

The food Japanese people eat has changed over time. In the past, people most often ate rice, vegetables, and fish. They could get most of that food in the country. Today, however, \*Western food is really popular, and people eat more meat, milk products, and bread than they did before. Japanese people get a lot of food from other countries. This means that they now depend both on their own country and on other countries for various kinds of food.

But how can we continue to provide food for Japanese people? This will be an important problem for the country in the near future. In Japan, people can now get food from all over the world, but <sup>(2)</sup> if this situation doesn't last, what will happen? You may know that the earth is getting warmer, and a lot of areas are becoming dry. Also, ice in cold areas all over the world is \*melting. As a result, sea levels have been rising, and some low lands are going under water. These things are making farming difficult, and that may change the things that Japanese people eat. Also, the world population is growing, and the amount of food needed in the future will increase. As a result, there may not be enough food in Japan. We should prepare for this situation. Some people say that we should think more about what foods we eat. Others say that it is necessary to grow a larger amount of crops in the country. Different people have different opinions about farming in the future.

Many people are worried about the future of farming in Japan. One problem is the decreasing number of people who work in farming. <sup>(3)</sup> How 【 ① be possible ② enough food ③ farmers ④ it ⑤ the number of ⑥ to provide ⑦ when ⑧ will 】 is limited?

One possible way to solve the problem is farming in larger \*fields. Some farmers put small fields together into a larger field, and this helps them work more easily. On a small piece of land, for example, a farmer can only use a small \*tractor. However, on a larger field, a farmer can finish the work fast with a big tractor. According to one report, the number of farmers who work on larger fields has been increasing recently. This is now popular in Hokkaido and the Tohoku region. Also, some farmers do farming in more effective ways than before. For example, though rice fields are usually used only for rice farming, some farmers have started to also use them for different crops. In the past, after the season for rice farming, fields were not used. Now, (4).

Another possible way to solve the problem is to use \*advanced technology in farming. Some people call that “smart farming” or “smart agriculture.” Sometimes, it is possible to see a tractor running without a driver or a drone flying over a field. These are things that help to do farming with a smaller number of

people. With such smart farming, (5).

Look at <sup>(6)</sup>**Graph X**. It shows the \*lengths of time that the rice farmers spent on various jobs in rice farming \*per 10a. The farmers spent 2.74 hours on \*planting rice. Those farmers spent about the same length of time on \*reaping and threshing. Also, they spent less than half of that time on \*weeding, and the longest time on water \*management. According to one report, after people began using a new technology to \*control water management on rice fields, they were able to reduce their management time greatly. They also got more rice than before. The increase in rice was only small, but it really helped them save working hours. The report says that the system with the new technology worked well and helped the farmers a lot.

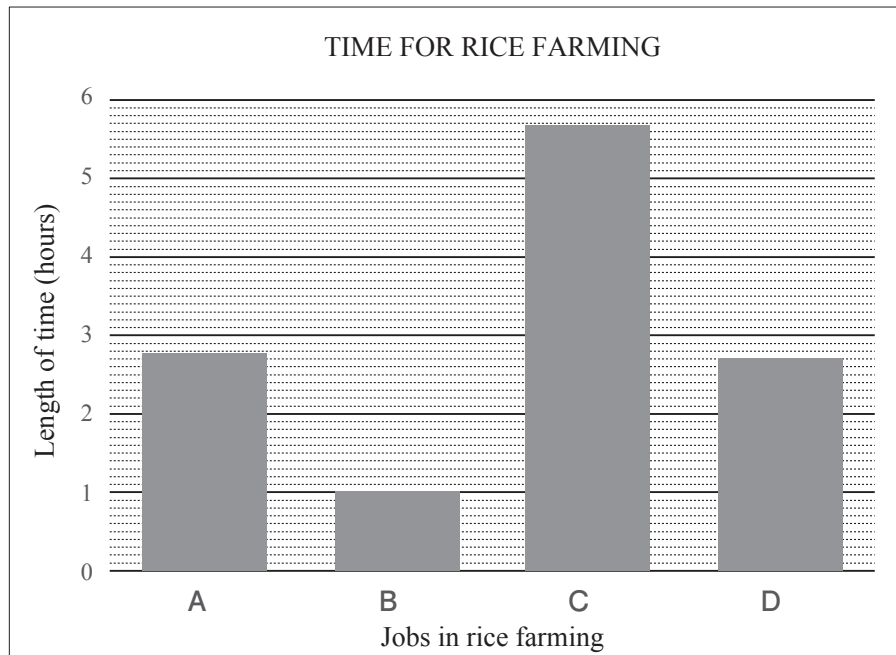
Advanced technology can also improve farmers' management of \*greenhouses. To keep greenhouses in good condition, farmers always have to bring clean air and water into them. This may be very difficult, especially when the number of farmers at work is limited, but farmers are now using new greenhouses with advanced technology. With them, windows can be \*automatically opened and closed, and water can be automatically provided. Farmers can easily change the environment in the greenhouse by using a small computer and telling it what should be done. With such greenhouses, farmers are able to produce more crops with a smaller amount of work.

Advanced technology for smart farming can also help older farmers \*pass down traditional skills to younger farmers. Young farmers usually learn a lot of farming skills over long periods of time. However, when different kinds of \*data about farming are put into computers, they can use the data to learn more quickly how they can do their work better. Also, older farmers sometimes depend on their experience to decide how to do their jobs, and explaining that to others may not be easy. Data show what conditions are the best and what some decisions may result in. This may be helpful for young farmers to \*manage their jobs in more effective ways.

It may be impossible to solve all the food problems immediately. Some people may say that the number of things we can do for the problems in our daily lives is limited. However, we will always need food to live. We should try to think more about food problems. We can start by asking a question. The question is <sup>(7)</sup>“What can we do in our daily lives to make the problems easier to solve?”.

[注]	agriculture 農業	crop 農作物	farming 農業
	region 地方	Western 西洋の	melt 溶ける
	field 畑	tractor トラクター	advanced 高度な
	length 長さ	per 10a 10アールにつき (アールは面積の単位)	
	planting rice 田植え	reaping and threshing 稲刈り脱穀	
	weeding 除草	management 管理	control 制御する
	greenhouse 温室	automatically 自動で	pass down 伝える
	data データ	manage 管理する	

Graph X



農林水産省『農業経営統計調査』より作成

〔問1〕 本文の流れに合うように、 に英文を入れるとき、最も適切なものは、次の中ではどれか。

- ア Japanese people often enjoy various kinds of food from different places.
- イ Japanese people get enough food without depending on crops from other countries.
- ウ Farmers in Japan are able to make the same products at any place.
- エ Farmers in Japan have already stopped growing crops from other countries.

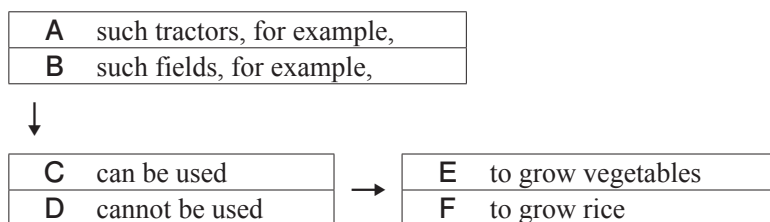
〔問2〕 (2) if this situation doesn't last, what will happen? とあるが、この内容を最もよく表しているものは、次の中ではどれか。

- ア If people in Japan stop eating rice, vegetables, and fish, what will happen?
- イ If there aren't enough people and land for farming in Japan, what will happen?
- ウ If it becomes difficult for people in Japan to get food from other countries, what will happen?
- エ If Japanese people don't provide enough products to other countries, what will happen?

〔問3〕 (3) How 【① be possible ② enough food ③ farmers ④ it ⑤ the number of ⑥ to provide ⑦ when ⑧ will】 is limited? とあるが、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たとき、【           】内で1番目と4番目と7番目にくるものの組み合わせとして最も適切なものは、次のア～カの中ではどれか。

	1番目	4番目	7番目
ア	④	⑥	⑤
イ	④	⑦	③
ウ	⑥	⑤	④
エ	⑥	⑧	①
オ	⑧	①	⑦
カ	⑧	⑥	⑤

〔問4〕 本文の流れに合うように、(4) に英語を入れるとき、次の A～F の組み合わせとして最も適切なものは、下の ア～ク の中ではどれか。



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

〔問5〕 本文の流れに合うように、(5) に英文を入れるとき、最も適切なものは、次の中ではどれか。

- ア it will be hard to grow different kinds of crops in greenhouses
- イ it may be necessary to use more workers in the fields
- ウ it will be important to use traditional ways
- エ it may be possible to make farming easier and to produce more

〔問6〕 <sup>(6)</sup>Graph X とあるが、A～Dのそれぞれの項目として正しい組み合わせは、次の中ではどれか。

- |   |                         |                         |
|---|-------------------------|-------------------------|
| ア | A reaping and threshing | B water management      |
|   | C planting rice         | D weeding               |
| イ | A water management      | B planting rice         |
|   | C weeding               | D reaping and threshing |
| ウ | A weeding               | B reaping and threshing |
|   | C water management      | D planting rice         |
| エ | A planting rice         | B weeding               |
|   | C water management      | D reaping and threshing |

〔問7〕 次の(1)～(3)の英文を、本文の内容に合うよう完成するには、の中に、それぞれ下のどれを入れるのがよいか。

(1) Many people in Japan .

- ア know that the number of people who work in farming now is not a problem
- イ think that a smaller number of people in Japan will work in farming in the future
- ウ know that getting more food from foreign countries will be useful for farming in Japan
- エ think that using advanced technology is bad for traditional farming

(2) To help farmers manage greenhouses better, .

- ア young workers will need to do more work
- イ drones fly over and watch new types of greenhouses
- ウ computers are used to control the environments in greenhouses
- エ all greenhouse work is controlled by advanced technology, not by humans

(3) With advanced technology for smart farming, younger farmers .

- ア do not have to work in greenhouses
- イ can depend on their experience in farming
- ウ stop using traditional ways of farming
- エ learn quickly by using data about farming

〔問 8〕 本文の内容に合う英文の組み合わせとして最も適切なものは、下のア～シの中ではどれか。

- ① All the food we eat in our daily lives comes from other countries.
- ② Some people say we should think more about our food.
- ③ Now in Japan, farming of rice and other crops is done in any season of the year.
- ④ People say that farming with advanced technology is different from smart farming.
- ⑤ Using new greenhouses is a part of smart farming and may reduce the amount of crops that farmers can get.
- ⑥ Smart farming can help to connect the past and the future of agriculture in Japan.
- ⑦ Finding better ways for farmers to do their jobs may help them manage the work better.
- ⑧ Older farmers today don't have to depend on their experience, because they have data in computers.

ア	① ⑦	イ	② ⑦	ウ	② ⑧	エ	③ ④
オ	⑤ ⑥	カ	① ③ ④	キ	② ③ ⑦	ク	② ⑥ ⑦
ケ	④ ⑥ ⑧	コ	① ③ ⑦ ⑧	サ	② ④ ⑤ ⑥	シ	④ ⑤ ⑥ ⑧

〔問 9〕 <sup>(7)</sup> “What can we do in our daily lives to make the problems easier to solve?” に対して、あなたならどのように対処するか。その答えを、**40語以上50語以内の英語**で書きなさい。ただし、本文に書かれていることは書かないこと。「,」 「.」 「!」 「?」などは語数に含めません。これらの符号は、解答用紙の下線部と下線部の間に書きなさい。

6  
書

英

語