

問1 次の文章は、外国語(英語)の授業で農業(agriculture)についての発表準備をしている高校生のタク(Taku)とアンナ(Anna)とリカ(Rika)の会話の一場面である。会話文と発表原稿を読んで、あとの(ア)～(オ)の問いに答えなさい。

*Table 1

Country	Land Area 国土面積	Agricultural Land Area 農地面積	Export Value of Agricultural Products 農産物輸出額
[あ]	3,780	447	42
[い]	96,000	52,853	642
*The Netherlands	415	184	788
*Germany	3,576	1,666	736
[う]	5,491	2,872	601
[え]	98,315	40,586	1,378

※面積については万ヘクタール、農産物輸出額については億ドルが単位である。(農林水産省 2019 資料をもとに作成)

会話文

Taku : Look at Table 1. It shows six countries' land area, agricultural land area, and the export value of their agricultural products.

Anna : I thought Japan's land area was smaller than Germany's, but it's not.

Taku : You're right. If we are talking about land area, Japan is larger than Germany, but smaller than *France.

Rika : Australia and India have large land areas, but they aren't in the table.

Taku : I didn't put them in the table. *The United States has the most land area in the table. It has *less agricultural land area than *China. The export value of agricultural products from the United States is *over twice as much as China's.

Rika : I hear the land area of the Netherlands is almost *the same size as Kyushu.

Taku : Yes. The Netherlands' land area is almost the same size as Japan's agricultural land area. It has the smallest agricultural land area in the table. But the export value of agricultural products from the Netherlands is the second highest in the table.

Rika : It's 78.8 *billion *dollars. How much is that in Japanese *yen ?

Taku : One dollar is about [お] yen now.

Anna : If we say that one dollar is [か] yen, the export value of agricultural products from the Netherlands will be seven *trillion eight hundred eighty billion yen.

Rika : At [お] yen, it will be about eight trillion five hundred eighty-nine billion yen.

Anna : The Netherlands is a small country in *the center of Europe. So, it is easy for the Netherlands to *ship *agricultural products to other countries fast.

Taku : Yes, that's right. Well, have you heard of "*Smart Agriculture" ?

Rika : No, I haven't. What's that ?

Taku : It's agriculture using *robots or *ICT to *save energy and make better agricultural

products. It's popular in the Netherlands now. For example, *farmers in the Netherlands use ICT to watch their *farm day and night when they *grow tomatoes.

Rika : I see. Do Japanese farmers use Smart Agriculture, too ?

Taku : I don't know. Let's learn about it and talk about it in class.

発表原稿

Today we are going to talk about Smart Agriculture in Japan. It's agriculture using robots or ICT. We learned about it after reading about Smart Agriculture in the Netherlands. We'll give you two examples from Japanese agriculture. First, on large farms Japanese farmers use *agricultural machines *operated by GPS. The machines work day and night, so farmers don't need to work on their farm for a long time. Working on a farm is hard, but Smart Agriculture can make it easier.

Now, we'll talk about another example. It's about using *smartphone applications for agriculture. Many farmers need to keep *data about their farm. For example, how much water their farm needs. But if they use smartphone applications, they can keep the data for a long time. The data can also be used by other farmers. [き] We think Smart Agriculture is very important for Japanese agriculture.

We also learned what farmers think about Smart Agriculture. We got some *information from the Internet. It shows many farmers *are interested in Smart Agriculture. But some farmers say they will not use it because they don't know a lot about ICT. [<] We need people who can *teach farmers how to use it. We found more information. Some farmers answered this question, "Why does it take a long time to start using ICT ?" Some of them said, "Because there are many old farmers who have never used ICT in agriculture." Other farmers said, "Some farmers work on small farms, so they don't think they need Smart Agriculture."

In Japan, many farmers are old. They know a lot about agriculture and have a lot of *experience. We think *young farmers should learn from the old farmers. If young farmers can use old farmers' experience and ICT at the *same time, Japanese agriculture will change a lot. [け] We hope many Japanese people will be interested in Smart Agriculture. Thank you.

* Table: 表 The Netherlands: オランダ Germany: ドイツ France: フランス
The United States: アメリカ合衆国 less ~ than ... : ... より少ない~ China: 中国
over twice: 2倍以上 the same size as ~: ~と同じ大きさ billion: 10億 dollars: ドル
yen: 円 trillion: 1兆 the center of Europe: ヨーロッパの中心 ship ~: ~を出荷する
agricultural products: 農産物 Smart Agriculture: スマート農業 robots: ロボット
ICT: 情報通信技術 save energy: エネルギーを節約する farmers: 農業従事者 farm: 農地
grow tomatoes: トマトを栽培する agricultural machines: 農作業用機械
operated by GPS: GPSで操作される smartphone applications: スマートフォンのアプリ
data: データ information: 情報 are interested in ~: ~に興味をもつ
teach ~ ... : ~に ... を教える experience: 経験 young: 若い same: 同じ

(7) Table 1の [あ] ~ [え] に入る国名の組み合わせとして最も適するものを、次の 1~8 の中から一つ選び、その番号を答えなさい。

- | | | | |
|---------------|-----------------------|------------|-----------------------|
| 1. あ : Japan | い : China | う : France | え : The United States |
| 2. あ : Japan | い : The United States | う : France | え : China |
| 3. あ : Japan | い : Australia | う : France | え : India |
| 4. あ : Japan | い : India | う : France | え : Australia |
| 5. あ : France | い : China | う : Japan | え : The United States |
| 6. あ : France | い : The United States | う : Japan | え : China |
| 7. あ : France | い : Australia | う : Japan | え : India |
| 8. あ : France | い : India | う : Japan | え : Australia |

(4) 会話文の [お] , [か] に入る数字の組み合わせとして最も適するものを、次の 1~8 の中から一つ選び、その番号を答えなさい。

- | | | |
|-----------------------|-----------------------|-----------------------|
| 1. お : 99 か : 103 | 2. お : 99 か : 109 | 3. お : 100 か : 99 |
| 4. お : 100 か : 103 | 5. お : 103 か : 100 | 6. お : 103 か : 109 |
| 7. お : 109 か : 99 | 8. お : 109 か : 100 | |

(7) 会話文の ——— 線部について、タクたちはオランダと日本のトマト栽培における 2016 年から 2018 年までの作付面積と生産量を比べるため、次の Table 2 を作成した。あとの a~f は、Table 2 から読み取れることを述べた文である。a~f のうち、正しく説明したものの組み合わせとして最も適するものを、1~8 の中から一つ選び、その番号を答えなさい。

Table 2

Country	2016		2017		2018	
	Area Harvested 作付面積	Production Quantity 生産量	Area Harvested	Production Quantity	Area Harvested	Production Quantity
The Netherlands	1,775	90.0	1,790	91.0	1,788	91.0
Japan	12,100	74.3	12,000	73.7	11,800	72.4

※作付面積についてはヘクタール、生産量については万トンが単位である。(国連食糧農業機関の統計データをもとに作成)

- オランダの作付面積は、2016 年から 2018 年にかけて年々増加している。
- 日本の作付面積は、2016 年から 2018 年にかけて年々減少している。
- オランダの生産量は、3 年間の中で 2016 年が最も少ない。
- 日本の生産量は、3 年間の中で 2017 年が最も多い。
- 2016 年から 2018 年にかけて、オランダの作付面積当たりの生産量は年々減少している。
- 2018 年の作付面積当たりの生産量を比べると、オランダは日本の 8 倍以上ある。

- | | | | |
|------------|------------|------------|------------|
| 1. a, c, e | 2. a, c, f | 3. a, d, e | 4. a, d, f |
| 5. b, c, e | 6. b, c, f | 7. b, d, e | 8. b, d, f |

(E) 発表原稿中の [き] ~ [け] のいずれにも入らないものを次の 1~4 の中から一つ選び、その番号を答えなさい。

- They may feel it is difficult to use ICT.
- But it is very hard to know when to use Smart Agriculture.
- We also think that young people will get jobs in agriculture.
- So it will tell farmers what to do next.

(オ) 次の a~c について、会話文及び発表原稿の内容と合っているものは正、合っていないものは誤とする組み合わせとして最も適するものを、あとの 1~8 の中から一つ選び、その番号を答えなさい。

- The Netherlands is a country which is almost as large as Kyushu and is also a good place for shipping agricultural products to other countries.
- Farmers who answered the question want the three students to teach them how to use ICT in agriculture, because there are many old farmers in Japan.
- If young farmers learn from old farmers' experience and use ICT, Japanese agriculture will change a lot.

- | | | |
|----------|-------|-------|
| 1. a : 正 | b : 正 | c : 正 |
| 2. a : 正 | b : 正 | c : 誤 |
| 3. a : 正 | b : 誤 | c : 正 |
| 4. a : 正 | b : 誤 | c : 誤 |
| 5. a : 誤 | b : 正 | c : 正 |
| 6. a : 誤 | b : 正 | c : 誤 |
| 7. a : 誤 | b : 誤 | c : 正 |
| 8. a : 誤 | b : 誤 | c : 誤 |