

## 令和5年度入学試験問題（前期日程）

# 英 語

### 注 意 事 項

1. 受験番号を解答用紙の所定の欄(3か所)に記入すること。
2. 解答はすべて解答用紙の所定の欄に記入すること。
3. 解答用紙の他に、下書き用紙を配付するので、取り違えないように注意すること。
4. 解答時間は、100分である。

1

次の英文を読んで、以下の各問に答えなさい。(30点)

Two days after Christmas, a Zulu<sup>\*1</sup> woman and her schoolboy son sat waiting for me to finish my morning's clinic in Ondini.<sup>\*2</sup> She wanted me to visit her old mother's cow, which had a calf<sup>\*3</sup> that would not come out, and the poor cow was getting very tired. "We have heard that you are a good vet,"<sup>\*4</sup> the woman said to me.

So off we went. The schoolboy sat in the ( A ) of my truck to show me the way, while the woman and my assistant Mbambo sat in the back. It took an hour of driving on bad roads full of holes. Then we parked at an empty old kraal.<sup>\*5</sup>

"Where's the cow?" I asked the boy.

"We have to walk a bit," he said.

So we took my vet's black bags and we walked. We passed other kraals with their fields and their fruit trees, and many of them with falling-down huts where no one lived. We walked over rocks and along the side of a river, and after about an hour, we came to a lonely kraal. There were three white huts surrounded ( B ) a tidy yard with many fruit trees. Under one of the trees was the poor old cow, looking very, very tired.

The villagers ( C ) out two nice wooden chairs with colorful seats from the middle hut. Before I put my black bags down on them, I talked to the elder lady who owned the cows, calling her "Inkosikazi," a proper Zulu term of respect for "Grandma." This very small woman was the head of her family.

I then looked at the cow and found that the calf was still alive, and very, very big. So, with Mbambo helping me, I gave the cow some medicine to make her go to sleep and began the operation.

When I finished, there was a crowd of about fifty people watching: men standing, older women sitting on the ground, and children sitting in the fruit trees. Now the calf was trying to stand ( D ) his feet, and shaking his head from side to side.

Someone brought a chair for Grandma to sit on.

"We must now talk about money. It's time for business," she called out to the villagers.

"Well," I said, "you nearly had a dead cow and a dead calf, but I came and got the calf out, and so now they are both alive, aren't they?"

She agreed, and fifty other people agreed, too.

"And I drove all the way from Ondini in my old truck, which is as thirsty as an old man drinking beer on a warm Sunday afternoon."

There were smiles and laughter.

“And if you take good care of this calf and he grows ( E ) a strong young bull, when he is a year old, at the market in Ondini, they will pay you about 1,500 rand\*6 for him. Right?”

“Yes,” replied Grandma. The old men in the crowd nodded their heads in agreement.

“And the cow . . . she’s old and tired, and the flies are horrible this summer. But if she lives, next autumn you can sell her for over 2,500 rand.”

Loud noises of agreement arose from the crowd.

“So then, Inkosikazi, my work has given you about 4,000 rand that you didn’t have ( F ).”

“Yes.”

“So how about we go halves—and I take 2,000 rand?”

There was much whispering between Grandma and her friends.

“That’s a lot of money,” she said.

“Yes, it is,” I said, “and we’ve just had Christmas and soon it’ll be New Year, and maybe the cow will die. So it is better that I don’t ask you for so much. You can pay me just half of that—750 rand.”

This caused even more loud whispering and nods of agreement.

“Wait!” said the schoolboy, who was standing behind his grandmother, “Half of 2,000 is not 750, it’s 1,000!”

“Oh-ho!” I said. “I can see you’re a clever young man. I made a mistake, but if I said 750, I meant it’s 750 and I won’t change it. Why? Because it’s the Christmas season—the time at ( G ) people are supposed to be generous.”

Well, what a noise there was after that! Everybody was smiling and happy. Grandma pulled out a great big handful of 200-rand bills, and she gave four of them to me, with her other hand open upwards beside the giving hand, in the proper Zulu way.

I took the money from her with my two open hands side by side, in the proper Zulu way, counted the bills and said, “Inkosikazi, you have given me too much.”

She stood up and said, “Keep the change, it’s for your assistant.”

“This time of year is so amazing,” I thought.

We then walked back for about an hour, along the difficult track, with a long line of helpers carrying my bags. We stopped sometimes to eat the sweet wild fruit that grows around most of the old kraals in this part of Africa . . .

. . . during the Christmas season.

\*1 Zulu 南アフリカのズールー族

\*2 Ondini オンディニ(南アフリカの都市の名前)

\*3 calf 子牛

- \*4 vet 獣医 (veterinarian の略)
- \*5 kraal クラール (通常はアフリカ南部先住民の村落にある家畜を入れる囲いのことだが、本文では周囲に垣根をめぐらせた集落を指す)
- \*6 rand ランド (南アフリカ共和国の通貨)

Adapted from *Cries from the Heart: Stories from around the World*, written by Jennifer Bassett, Oxford University Press, 2004. pp. 36-40.

問1 本文中の空欄 (A) ~ (G) に入る最も適切な語を選択肢 a ~ d の中から一つ選び、記号で答えなさい。 (7点)

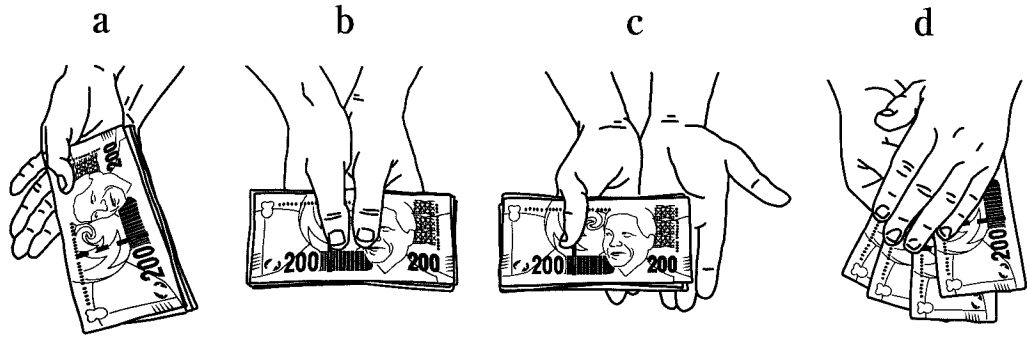
- |               |            |           |          |
|---------------|------------|-----------|----------|
| (A) a. back   | b. forward | c. front  | d. side  |
| (B) a. at     | b. by      | c. in     | d. to    |
| (C) a. bought | b. brought | c. poured | d. stood |
| (D) a. by     | b. in      | c. on     | d. up    |
| (E) a. down   | b. into    | c. upon   | d. with  |
| (F) a. after  | b. before  | c. ever   | d. since |
| (G) a. that   | b. what    | c. where  | d. which |

問2 本文の内容に合致するように、次の(1)~(7)の文の下線部に入る最も適切なものを選択肢 a ~ d の中から一つ選び、記号で答えなさい。 (14点)

- (1) Altogether, it took about \_\_\_\_\_ for the vet to travel from the clinic to where the elderly woman was waiting.
- a. one hour
  - b. one and a half hours
  - c. two hours
  - d. two and a half hours
- (2) Grandma spoke loudly to the crowd about the vet's payment because she wanted to \_\_\_\_\_.
- a. confirm with everyone that she had two cows
  - b. invite the villagers to participate in their discussion
  - c. let everyone know that her cow was saved
  - d. make sure that the vet could hear her

- (3) The vet's truck being "as thirsty as an old man drinking beer on a warm Sunday afternoon" most likely means that it \_\_\_\_\_.
- a. consumes a lot of gasoline
  - b. gets hot inside and makes the driver thirsty
  - c. is driven carefully on Sunday afternoons
  - d. runs slow and does not go straight
- (4) Grandma thought that the fee the vet first suggested was \_\_\_\_\_.
- a. cheap
  - b. excessive
  - c. modest
  - d. reasonable
- (5) The crowd's reaction to the 750-rand settlement implied that they were \_\_\_\_\_.
- a. concerned
  - b. confused
  - c. delighted
  - d. inspired
- (6) Grandma gave the vet extra money because she wanted \_\_\_\_\_.
- a. the vet to drive the assistant home
  - b. the vet to hire another assistant
  - c. the vet's assistant to buy new bags
  - d. the vet's assistant to have a share
- (7) The vet was amazed when the business was done because \_\_\_\_\_.
- a. he had to go all the way back home in his old truck
  - b. people were generous during the time when the story occurred
  - c. the client paid him the full amount of money in cash
  - d. the old cow and the calf survived after the operation

問3 下線部(X)の “the proper Zulu way” の内容を最も適切に表している図を選択肢 a ~ d の中から一つ選び、記号で答えなさい。(4点)



問4 本文の内容に合致するように、次の空欄①～⑤に入る数字を、下の選択肢 a ~ j の中から一つ選び記号で答えなさい。記号は一回だけ使えます。(5点)

When the vet and Grandma discuss the payment for the surgery to save the cow and its calf, he says that Grandma can get ( ① ) rand if she sells the cow and the calf later. He asks for a payment of ( ② ) rand because it is half of what she will make. He then proposes reducing the fee by half, which he says comes to ( ③ ) rand. The schoolboy tells him that he is making a mistake and it should be ( ④ ) rand. However, the vet does not change the amount. In the end, Grandma thanks the vet and pays him ( ⑤ ) rand more than the agreed amount.

- |          |          |          |          |          |
|----------|----------|----------|----------|----------|
| a. 50    | b. 100   | c. 750   | d. 800   | e. 1,000 |
| f. 1,500 | g. 2,000 | h. 2,500 | i. 4,000 | j. 5,000 |

2 次の英文を読んで、以下の各問に答えなさい。(30点)

### Vertical Farming Takes Off in Aging Japan

From the outside, it is almost impossible to know what is taking place in this ordinary building located in Kansai Science City, an industrial area near Kyoto. In fact, 30,000 heads of lettuce are being grown with the use of artificial lighting and machines.

This “vegetable factory,” using the latest agricultural techniques, requires just a few workers. New techniques for farming are being developed in Japan, where traditional farming is in trouble. Japan is a country with an aging population. The average age for Japanese farmers is 67 and there are few people willing to replace them. Moreover, there is a trend of people moving to the cities. As a result, there are questions about how the world’s third-biggest economy will ( A ) itself.

The country has been forced to develop new food production methods, such as vertical farming. In vertical farming, machines move racks of vegetables such as lettuce around a factory to areas where the light, temperature, and humidity are perfect for each stage of growth. The process works without soil or chemicals, and humans are only needed to ( B ) the lettuce once they are fully grown.

World famous companies such as Panasonic, Toshiba, and Fujitsu have tried to apply new agricultural techniques in old factories, but their successes are coming slowly. ( C ), one small company, Spread, has quickly become profitable and is now a world leader in vertical farming. Each year, they produce 11 million heads of lettuce in their newest factory named “Techno Farm.” “Given the declining number of farmers and falling agricultural production, I felt a new system was needed,” Shinji Inada, Spread’s boss, told AFP.\*1 Spread has taken some time to improve efficiency and make the process nearly fully automated.\*2 The new factory will produce 648 heads of lettuce per square meter annually, compared with 300 at the older factory, which still employs quite a few humans to move the racks of lettuce.

The advantages of automated farming are clear: “We can produce large quantities at a stable rate all year round, without being affected by temperature changes,” said Inada. “The other benefit is that we have fewer losses because our products are ( D ) longer,” he added. In the beginning, the firm had some difficulty selling their products. However, they were able to produce quality lettuce at a ( E ) price—in a country where food prices change considerably depending on the season and other factors. By avoiding extreme weather events such as heavy rains, typhoons, and floods, which often cause the price of vegetables to double, they were able to develop a good brand that is sold in large cities.

Spread's lettuce is found on supermarket shelves in Kyoto and Tokyo. Inada has plans to move production closer to where the vegetables are sold. The firm is building a factory in Narita, near Tokyo, and is thinking about building in countries where the climate is not favorable for traditional agriculture. "We can easily export our production system ( F ) very warm or very cold climates to grow lettuce," said Inada.

In fact, vertical farms already exist in places that are unsuitable for vegetable farming and have high costs to import fresh produce.\*<sup>3</sup> In Antarctica,\*<sup>4</sup> where severe weather prevents shipments of supplies for much of the winter, scientists grow lettuce, cucumbers, and radishes to feed the staff at their research station. Even on the International Space Station, astronauts are growing vegetables on a mini vertical farm.

"Climate change is affecting food production almost everywhere, and the economics of growing and selling produce is affecting everyone," said Dickson Despommier, a professor at Columbia University, who has been advocating vertical farming since the 1990s. "If we don't do something soon to reduce the rate of climate change, vertical farming may be our last hope of getting food on the table for all those who live in cities," warns Despommier.

But is vertical farming environmentally friendly? Inada said he was not sure about this question in the beginning, but he finally decided that it is better to try. "It's true that we use more energy compared to production using the sun, but on the other hand we have higher productivity using the same amount of land," he said. Moreover, as lighting technology improves, power use will decrease. The system allows the company to produce eight crops\*<sup>5</sup> of lettuce per year, which results in hundreds of heads of lettuce per square meter, compared with five heads per square meter on most outdoor farms. It also uses a lot less water than traditional agricultural methods. Spread's system uses 110 milliliters of water per head of lettuce — 1 percent of the volume needed for traditional outdoor farming because the moisture released by the vegetables is condensed\*<sup>6</sup> and reused. "I believe we are ( G ) to sustainable agriculture for our society, and such ideas are becoming more and more popular," claims Inada.

Other companies are joining this trend. For instance, Mitsubishi Gas Chemical is building a factory in northeastern Fukushima that will produce 32,000 heads of lettuce daily. In fact, Japan already has around 200 lettuce factories using artificial light, but the majority of these are small-scale. However, one consulting group predicts that the number of these factories will double by 2025. Moreover, they are not just producing lettuce. Tomatoes and strawberries grown by computers under artificial light are also on their way to a table near you.



- \*1 AFP            フランス通信社 (Agence France-Presse) の略称
- \*2 automate      自動化する
- \*3 produce       農作物
- \*4 Antarctica    南極大陸
- \*5 crop           農作物の 1 回の収穫
- \*6 condense      凝縮する

Adapted from two articles:

(1) Nishimura, K. "Grown from necessity: vertical farming takes off in ageing Japan." Retrieved from <https://phys.org/news/2019-12-grown-necessity-vertical-farming-ageing.html> on July 1, 2022.

(2) Takada, A. "As high-rise farms go global, Japan's Spread leads the way." *Japan Times*. Retrieved from <https://www.japantimes.co.jp/news/2018/11/01/business/tech/high-rise-farms-go-global-japans-spread-leads-way/> on July 1, 2022.

問 1 本文中の空欄 (A) ~ (G) に入る最も適切な語を選択肢 a ~ d の中から一つ選び、記号で答えなさい。 (7 点)

- |                    |                |                      |              |
|--------------------|----------------|----------------------|--------------|
| (A) a. acquire     | b. feed        | c. produce           | d. take      |
| (B) a. adjust      | b. assemble    | c. collect           | d. develop   |
| (C) a. For example | b. In addition | c. On the other hand | d. Similarly |
| (D) a. consumed    | b. inspected   | c. integrated        | d. preserved |
| (E) a. combined    | b. consistent  | c. diverse           | d. variable  |
| (F) a. at          | b. by          | c. from              | d. to        |
| (G) a. appealing   | b. contrasting | c. contributing      | d. objecting |

問 2 次の(1)~(5)の各問について、本文の内容に合致するものを選択肢 a ~ d の中から一つ選び、記号で答えなさい。 (15 点)

- (1) Why are new techniques for farming being developed in Japan?
- a. Consumption of vegetables is increasing each year.
  - b. Current Japanese produce is inferior to foreign produce.
  - c. Fewer people are willing to become farmers.
  - d. New technology will make Japan the third largest economy.

- (2) Which of these possible vertical farming locations is not mentioned?
- a. a cold and remote place
  - b. a train station
  - c. an urban industrial center
  - d. outer space
- (3) Which of the following statements is a merit of vertical farming?
- a. It consumes less water.
  - b. It encourages young people to become farmers.
  - c. It recycles more solar energy.
  - d. It uses less electricity.
- (4) According to Professor Dickson Despommier, how does climate change relate to vertical farming?
- a. Vertical farming could ultimately accelerate climate change due to its large energy consumption.
  - b. Vertical farming could ultimately help people get food as climate change continues to affect agriculture.
  - c. Vertical farming will probably cause climate change that will affect traditional outdoor farming.
  - d. Vertical farming will probably produce chemicals to help reduce the rate of climate change.
- (5) According to one forecast, how many lettuce factories could exist in Japan two years from now?
- a. 200
  - b. 300
  - c. 400
  - d. 800

問3 次の a ~ j について、本文の内容に合致するもの四つを選び、記号で答えなさい。

(8点)

- a. At least one professor has supported the concept of vertical farming for over 30 years.
- b. At least one world-famous Japanese company has become a world leader in the vertical farming industry.
- c. Because of their large factories, world-famous Japanese companies have entered the vertical farming business and have made instant profits.
- d. Because vertical farming is fully automated, it does not require human workers.
- e. Both large and small companies are engaging in vertical farming.
- f. Spread's boss says that vertical farming is definitely environmentally friendly.
- g. Spread's newest factory is expected to be more than twice as productive as its older one.
- h. Traditional farming is more productive per square meter than vertical farming.
- i. Vertical farming can reduce problems caused by severe weather.
- j. Vertical farming is easier than traditional farming for older workers.

3

次の対話文を読んで、以下の各問に答えなさい。(10点)

Mai: Good morning.

Hotel Staff: Good morning. How can I help you today?

Mai: Umm. . . I've got some free time tomorrow and I want to do some sightseeing around Sunnydale. What would you suggest?

Hotel Staff: Well, what kinds of things would you like to do?

Mai: Well, I'd like to spend some time doing things that the <sup>(1)</sup>\_\_\_\_\_ people do. You know, away from tourists . . . just things that people around here do on their days off. Oh! And also, I'd like to try some of Sunnydale's famous food.

Hotel Staff: OK. Well then, I'd suggest that you start the day at Farm Village. It's a popular place around here. It has a lot of good shops, and it's a great place to find bargains.

Mai: That sounds great. What time does it open?

Hotel Staff: Well, the shops open at about 9 o'clock in the morning.

Mai: All right. I think I'll do that. What about in the afternoon?

Hotel Staff: Well, I'd <sup>(2)</sup>\_\_\_\_\_ that you go downtown. You could start off by visiting Royal Park. It's right downtown. They have a very nice aquarium and some nice cafés. (X) \_\_\_\_\_.

Mai: An aquarium? Cool. How much does it cost to get in?

Hotel Staff: Oh, let me check. Umm . . . the aquarium is \$18.95 per p<sup>(3)</sup>\_\_\_\_\_.

Mai: \$18.95? (Y) \_\_\_\_\_. I'll do that for sure. So . . . what about in the evening?

Hotel Staff: The evening? Well, first, for dinner, I'd suggest that you go to one of the restaurants on Long Beach.

Mai: Long Beach? Do you mean the restaurants are beside the ocean?

Hotel Staff: That's right. The restaurants there are p<sup>(4)</sup>\_\_\_\_\_ good, and at sunset the view is beautiful.

Mai: Oh, that's a great idea.

Hotel Staff: Then, after dinner, you could walk up Walton Street. It's another really popular area. It has lots of shops and restaurants. If you like shopping, you'll love Walton Street.

Mai: Yeah, actually, I love to shop. Wow. Thanks very much for your a<sup>(5)</sup>\_\_\_\_\_. I'm really looking forward to tomorrow.

Hotel Staff: You're more than welcome. Actually, here's a map. Let me show you where

everything is. Umm . . . OK . . . here's Farm Village. Then in the afternoon, you need to go here to the downtown area. And this is Royal Park. Then in the evening, the restaurants on Long Beach are right here. And Walton Street is here.

**Mai:** Great. Thanks so much for your help.

**Hotel Staff:** My p\_\_\_\_\_ Have a great day tomorrow.

**Mai:** I will. Thanks.

Adapted from *Encounters Abroad*, Nan'Un-Do, 2007, p. 93.

問1 対話文中の空欄(1)~(6)に、与えられている文字で始まる最も適切な語を英語で書きなさい。  
ただし文字数は下線の数と一致させること。 (6点)

- (1) l\_\_\_\_\_
- (2) r\_\_\_\_\_
- (3) p\_\_\_\_\_
- (4) p\_\_\_\_\_
- (5) a\_\_\_\_\_
- (6) p\_\_\_\_\_

問2 対話文中の下線部(X)(Y)に入る最も適切な表現を選択肢 a ~ d の中から一つ選び、記号で答えなさい。 (4点)

(X)

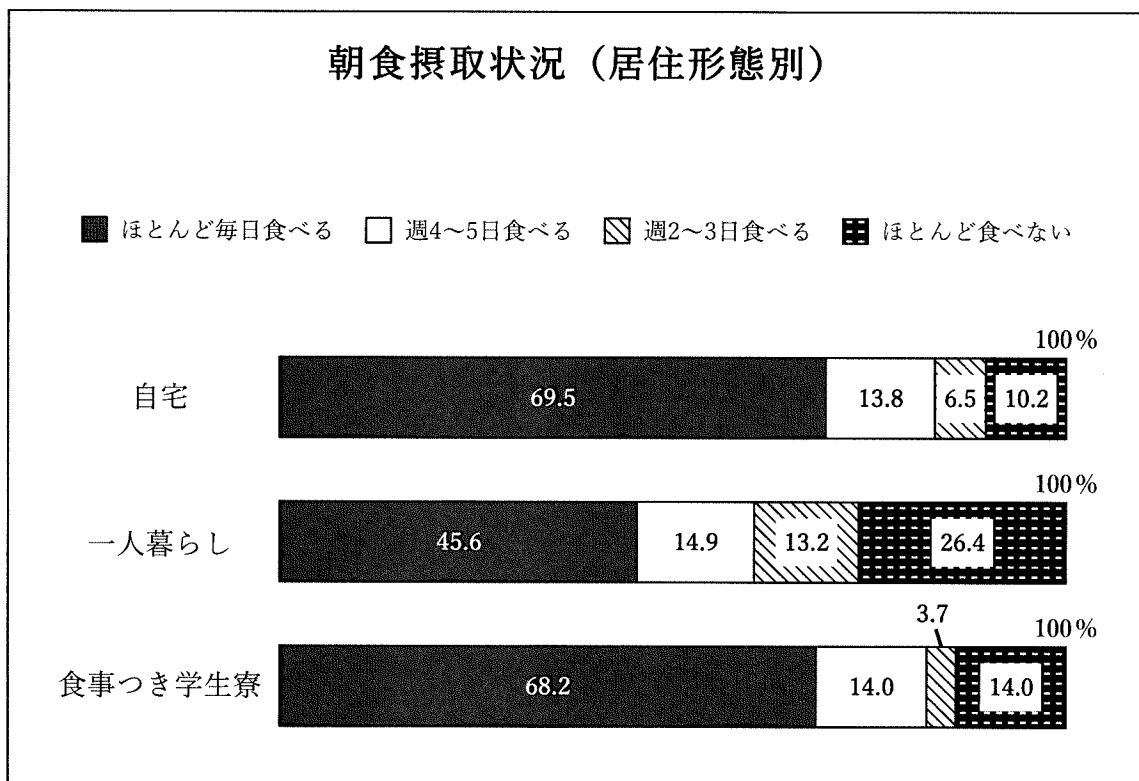
- a. You can enjoy an amazing breakfast there
- b. You can enjoy the night view
- c. You can find a good place for your dinner
- d. You can find a good place for your lunch

(Y)

- a. I'm afraid I can't afford it
- b. I'm afraid it's not worth it
- c. That's not bad
- d. That's too much

4 次のグラフは、2016年時点における朝食をとる日本の大学生の割合(%)を居住形態別に表した結果です。

まず、グラフからわかることを述べなさい。次になぜこのような結果が得られたのか、考えられる理由を述べなさい。わかることと理由を含め、全体で150語程度の英語で書くこと。また、文法や綴りも採点の対象となるので注意すること。(30点)



出典：「平成28年度大学生を対象とした食育に関わるアンケート調査報告」

[https://www.maff.go.jp/hokuriku/food/shokuiku/attach/pdf/student\\_enquete-5.pdf#search=%27](https://www.maff.go.jp/hokuriku/food/shokuiku/attach/pdf/student_enquete-5.pdf#search=%27)

(農林水産省北陸農政局，平成30年1月)より転載(一部改変)。2021年11月17日閲覧。



