

英 語

(医 学 部)

— 2 月 6 日 —

次の英文を読み、下の問いに答えなさい。

Bees have been used by humans since the beginning of civilization. Besides their production of honey, they play an important role in the world food supply. Bees fly from flower to flower carrying pollen with their legs to pollinate over 90 kinds of fruit and vegetable crops eaten by humans. In fact, the first bee colonies in the United States were used for apple pollination. [6A] However, bees in the United States have now been vanishing in large numbers due to a phenomenon called *Colony Collapse Disorder*, or CCD. If this continues, North American agriculture, as well as world farming, will be devastated in the future.

Bee colonies affected by CCD can appear healthy, but then the adult bees suddenly disappear, leaving behind only honey, pollen, immature bees, a queen, and maybe a few worker bees. Although there has been a lot in the media about CCD lately, some people feel that CCD is nothing new. A few bee experts have said CCD is actually an older disorder known as *Disappearing Disease*. Furthermore, there is very little agreement on the causes of CCD. Among the possible causes are Varroa mites^{*1} and other insect diseases, malnutrition,^{*2} certain chemicals, environmental changes, or some combination of these factors. [6B] The fact that two or more causes might be working together makes CCD more difficult to understand.

Beekeepers around the world have reported high bee losses since 2006. [6C] In fact, billions of bees have disappeared since then. These bee losses should be taken seriously because honey bees contribute billions of dollars to the world's agricultural industry. One estimate^(A) suggests that one-third of the world's food production is directly dependent on honey bee pollination.⁽¹⁾ For instance, California produces 80 percent of the world's almond supply. An acre^{*3} of almond trees produces only 18kg of almonds without honeybees but up to 1,100kg when bees are used. The loss of bees could create a price war for food because of decreasing food availability.

Although the CCD Working Group, based at Pennsylvania State University, has been leading the research into this phenomenon, more scientists, beekeepers, industry workers, and government officials are beginning to investigate the possible causes of CCD. [6D] In addition, many other research agencies have realized the importance of honey bees and have begun to distribute⁽²⁾ research funds in an attempt to find the cause and a cure.

At present, some bee-breeding areas of the United States have already lost 50 to 70 percent of their colonies because of CCD, and the problem may still get worse. Clearly, without appropriate action, the future of North America's bee industry, as well as world farming, is at great risk.

*¹ Varroa mites ミツバチに害を与える寄生性ダニ *² malnutrition 栄養不良 *³ acre エーカー(約4046.8m²)

問1 第1段落の内容として正しくないものを、ア～エの中から一つ選びなさい。

- ア. Bees spread viruses among various insects. イ. Bees help provide food in the world.
ウ. Bees have been used by people for a long time. エ. Bees assist with apple production.

問2 第2段落の内容と合うように下線部に最も適切なものを、ア～エの中から一つ選びなさい。

CCD is difficult to understand because _____.

- ア. adult bees disappear with honey イ. it is a completely new occurrence
ウ. it occurs for several reasons エ. queens and worker bees do not work together

問3 第3段落の下線部(A)の意味・内容として最も適切なものを、ア～エの中から一つ選びなさい。

- ア. Bees directly assist the world's financial industry.
- イ. Bees are important for helping farmers produce food.
- ウ. Bees destroy agriculture by damaging plants.
- エ. Bees consume billions of dollars of flowers.

問4 第4段落の内容と合うように下線部に最も適切なものを、ア～エの中から一つ選びなさい。

Research on CCD has _____.

- ア. been decreasing イ. stayed at the same levels
- ウ. been delayed エ. been increasing

問5 第5段落から推測される内容となるように下線部に最も適切なものを、ア～エの中から一つ選びなさい。

CCD is _____.

- ア. a disorder that will soon come to an end イ. not as bad as scientists think
- ウ. the greatest difficulty facing the Earth エ. a serious problem that needs proper attention

問6 次の文を本文に挿入する位置として最も適切なものを、ア～エの中から一つ選びなさい。

Bees also pollinate other plants that are not eaten by humans, yet support many of the animals that humans rely on.

- ア. 6A イ. 6B ウ. 6C エ. 6D

問7 本文中の下線部(1), (2)を置き換えることができる語(句)としても最も近いものを、それぞれア～エの中から一つ選びなさい。

(1) estimate

- ア. example イ. presentation ウ. action エ. calculation

(2) distribute

- ア. give out イ. take in ウ. use up エ. receive from

問8 According to the passage, what would be the outcome if the amount of available food was reduced?

- ア. understanding CCD イ. more expensive food prices
- ウ. the use of certain chemicals エ. a greater production of fruits and vegetables

問9 What is the main idea of this passage?

- ア. CCD might be an older disorder known by a few experts.
- イ. Almonds are much better when pollinated by bees.
- ウ. The declining bee population may influence the world food supply.
- エ. More funds are being used to research CCD.

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. The ancient Olympic Games () as contests for amateurs, but now professional athletes also participate in the games.
ア. start イ. started ウ. starting エ. starts
2. Hakone is located () the western part of Kanagawa Prefecture.
ア. on イ. under ウ. to エ. in
3. It is a fact that () form of energy.
ア. electricity is the most useful イ. electricity the most useful
ウ. the most useful in electricity エ. electricity being the most useful
4. Daily temperatures of cities are probably () used than any other kind of weather data.
ア. more frequently イ. most frequently ウ. as frequently as エ. so frequently as
5. This plant only lives for a year, () new seeds must be planted every year.
ア. before イ. after ウ. so エ. while
6. () lay its eggs on the beach than it goes back into the sea.
ア. No sooner a turtle does イ. A turtle no sooner does
ウ. Does no sooner a turtle エ. No sooner does a turtle
7. Rome, () is my favorite Italian city, seems to have more visitors every year.
ア. where イ. which ウ. who エ. how
8. He () there yesterday, but we didn't see him.
ア. might be イ. must be ウ. must have エ. might have been
9. The United States leads the world in the production of plastics, () half of the world's total output.
ア. supplied イ. supplying ウ. to supply エ. supplies
10. John never eats potatoes and ().
ア. so doesn't Mary イ. neither doesn't Mary ウ. neither does Mary エ. so Mary does

次の 1 ～ 10 の英文を読み、下線部の意味に最も近い語(句)を、それぞれア～エの中から一つ選びなさい。

1. John was brought up in a small town.

- ア. raised イ. employed ウ. taken エ. moved

2. The meeting had to be called off.

- ア. telephoned イ. scheduled ウ. cancelled エ. attended

3. Let's make certain that he knows about the meeting.

- ア. believe イ. suggest ウ. hope エ. ensure

4. I need someone to fill in for me at work.

- ア. fire イ. substitute ウ. help エ. wait

5. As far as I'm concerned, the new project can start without delay.

- ア. In my opinion イ. Without my knowledge ウ. Beyond my belief エ. With all my heart

6. It has snowed heavily for a week. Consequently, all the transportation in the city has stopped.

- ア. Unfortunately イ. As a result ウ. In the meantime エ. Nevertheless

7. I had nothing but my guitar and a little cash when I arrived at the station.

- ア. all of イ. not even ウ. both エ. only

8. I have to get through with this assignment by tomorrow.

- ア. consider イ. remove ウ. take エ. finish

9. Bananas used to be a great deal cheaper than they are now.

- ア. considerably イ. sincerely ウ. luckily エ. hardly

10. John was at a loss when he couldn't find his wallet.

- ア. interested イ. tired ウ. confused エ. pleased

次の問 1 ～ 5 の会話文の下線部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。

問 1 A: Where will the fireworks festival be held this year?

B: _____

A: Right, I forgot the new location.

ア. No, it's been shortened this year.

イ. Isn't it along the Onagi River?

ウ. Why did they choose that place?

エ. They chose such a nice place.

問 2 A: John, please help me! My computer has frozen, and I don't want to lose this document.

B: _____

A: Thank you so much.

B: No problem. It won't take long to fix it.

ア. Oh, it's really frozen. I don't know what to do.

イ. I'm sorry, but it's actually more than I can handle.

ウ. What keys did you touch? The document is already damaged.

エ. Don't panic. It's a rather common problem. Let me see.

問 3 A: What did your parents say about you going abroad?

B: _____

A: That's wonderful. Many parents worry too much about safety.

B: Mine tend to look on the positive side.

ア. They're proud of me for making my own choice.

イ. They are trying to stop me.

ウ. They won't pay for all of my expenses.

エ. They want me to change my mind.

問 4 A: Could you make a quick copy of these documents?

B: Actually, our copier is down.

A: _____

B: Don't worry. I'll run down to the convenience store to do it for you.

ア. Are you sure? I've never copied these documents.

イ. Oh, no. I have to get these copied right away.

ウ. You're right. That's what the machine is for.

エ. That's okay. It's an important machine for the office.

問 5 A: I hate the rainy season, but at least it's cooler.

B: Carrying an umbrella every day is a pain in the neck.

A: _____

B: Good idea. Where can I get one?

ア. I want to go to a place where there is little rain.

イ. Yes, and it's always so hot every day.

ウ. Well, just buy a lightweight, folding one.

エ. In that case, you should see a doctor.

次の問1と問2に答えなさい。

問1 次の会話の状況に合うように下線部に最も適切なものを、ア～エの中から一つ選びなさい。

Eric: Why didn't you go to John's birthday party?

Paul: Party? What are you talking about? I would have gone if I'd known about it.

Eric: Oh, sorry. I thought you knew.

_____ the party.

ア. Paul went to

イ. Eric knew about

ウ. Both Paul and Eric went to

エ. Neither Paul nor Eric knew about

問2 次の場面の状況に合うように下線部に最も適切なものを、それぞれア～エの中から一つ選びなさい。

1. One day my family went to a steakhouse, and my brother ordered a steak. After having a bite, he immediately said to a waiter, "What animal did this steak come from? Only a power saw could cut through this meat!"

My brother was _____.

ア. being polite

イ. ordering

ウ. complaining

エ. being happy

2. Jack is in his room talking to himself, "Seventeen. I'm only a third-year student in high school. I don't have a license, so I can't drive. I have nothing to do on weekends for fun."

Jack is _____.

ア. rude

イ. down

ウ. hopeful

エ. joyful

6

次の問1～3の英文を読み、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. To make sweet tea, first boil a pot of water.
 2. Sweet tea is a very easy-to-make drink that is popular in the southern United States.
 3. After that, add four tea bags to the pot and wait for 30 minutes before serving it over ice.
 4. Once the water boils, add one cup of sugar to the water and mix well.

ア. 1 → 3 → 4 → 2

イ. 2 → 1 → 4 → 3

ウ. 1 → 4 → 2 → 3

エ. 2 → 3 → 4 → 1

- 問2
1. With this uncomfortable feeling in my stomach, it is difficult for me to do my work well.
 2. Statistics show that many people do not eat breakfast, including myself.
 3. In addition, I don't like to eat breakfast because it makes me feel full all morning.
 4. For instance, it is very hard for me to wake up and then make breakfast.

ア. 4 → 2 → 3 → 1

イ. 2 → 3 → 1 → 4

ウ. 4 → 3 → 1 → 2

エ. 2 → 4 → 3 → 1

- 問3
1. That is to say, they become separate, independent individuals.
 2. During this period, children distance themselves from their parents.
 3. The teenage years between childhood and adulthood are a period of growth and separation.
 4. As individuals, they express their opinions most strongly with their clothes, hairstyles, music, and vocabulary.

ア. 3 → 4 → 2 → 1

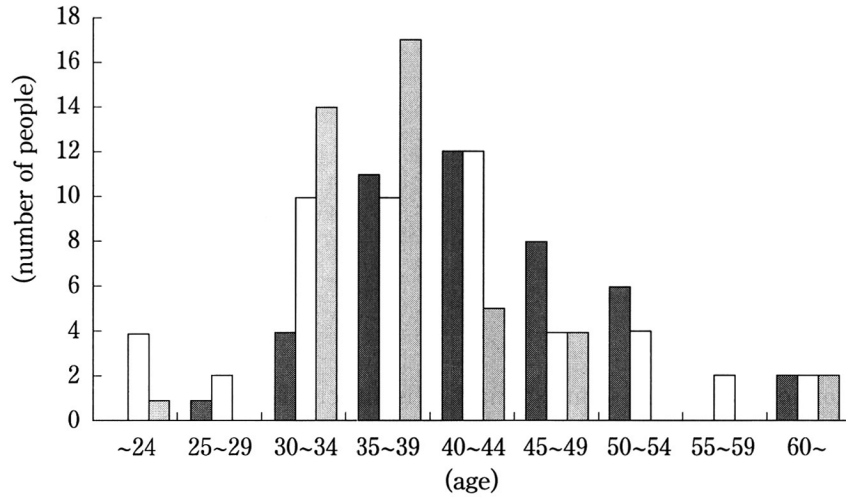
イ. 4 → 1 → 2 → 3

ウ. 3 → 2 → 1 → 4

エ. 4 → 3 → 1 → 2

次の棒グラフを見て、問1～4の下線部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。

Nobel Prize Winners
in Chemistry, Physics, Physiology and Medicine
(1987~2006)



■ Chemistry (44 people) □ Physics (50 people) ▨ Physiology and Medicine (43 people)

2007 年文部科学省ホームページより抜粋し改写

問1 The graph shows the _____ of Nobel Prize winners in different fields and age groups.

ア. nationality イ. gender ウ. number エ. names

問2 _____ under the age of 24 received a Nobel Prize in Chemistry.

ア. No one イ. One person ウ. Four people エ. Five people

問3 Between the ages of 45 and 49, there were _____ as many Nobel Prize winners in Physiology and Medicine as there were in Chemistry.

ア. both イ. half ウ. two times エ. double

問4 Among those aged 60 and older, there was _____ number of Nobel Prize winners in all fields.

ア. an odd イ. a greater ウ. an equal エ. a smaller

8

次の英文はある外国人の目から見た日本に関する記事です。下線部 (1) と (2) を日本語に訳しなさい。

Visitors who are afraid that there's nothing traditional left in Japan need only venture beyond the outskirts of Tokyo.
(1)
There, modernity is known, but it hasn't made much of an impact on the farmers and others who live among the ancient shrines and castles that dot the countryside. These people look to religion as a practical extension of daily life and turn to it whenever necessary, performing simple rituals designed to ask the *kami* spirits for fertility and abundant crops. Tradition and progress are not seen as opposing forces in Japan, and city people often take time out from their focus on the
(2)
21st century to reconsider their ancestors' traditions at many picturesque and joyful festivals.

9

次の日本語を読み、下線部 (1) と (2) を英語に訳しなさい。

日本では、経済的な理由から小学校に通うことができない子どもの数が近年増加している。このような子どもの中には、
(1)
外国人や日系人の子どもも含まれ、彼らは長期間日本に滞在する傾向にある。このような状況の中、日本政府は外国人の
(2)
子ども達の中学校進学を許可し、日本社会にもっと参加する機会を与えようと計画している。