

平成23年度

11時20分～12時50分

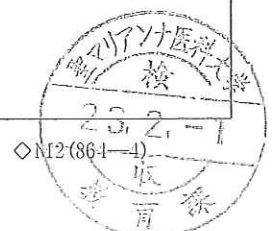
英 語

問題用紙	1 ～ 6	頁
解答用紙	1	頁

注 意 事 項

1. 試験開始の合図 [チャイム] があるまで、この注意をよく読むこと。
2. 試験開始の合図 [チャイム] があるまで、この問題の印刷されている冊子を開かないこと。
3. 試験開始の合図 [チャイム] の後に問題用紙ならびに解答用紙の定められた位置に受験番号、氏名を記入すること。
4. 解答はかならず定められた解答用紙のそれぞれ定められた位置に、問題の指示に従って記入すること。
5. 解答はすべて黒鉛筆を用いてはっきりと読みやすく書くこと。
6. 質問は文字に不鮮明なものがあるときにかぎり許される。
7. 問題に、落丁、乱丁の箇所があるときは手をあげて交換を求めること。
8. 試験開始後60分以内および試験終了前10分間は、退場を認めない。
9. 試験終了の合図 [チャイム] があつたとき、ただちに筆記用具を置くこと。
10. 試験終了の合図 [チャイム] の後は、問題用紙および解答用紙はすべて本表紙を上にして、通路側から解答用紙、問題用紙の順に並べて置くこと。いっさい持ち帰ってはならない。
なお、途中退場の場合は、すべて裏返しにして置くこと。
11. その他、監督者の指示に従うこと。

受験番号		氏 名	
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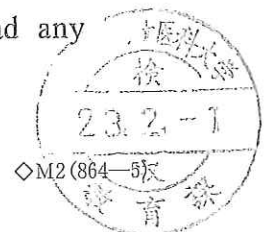
1 次の英文を読み、問題に答えなさい。

Imagine standing in the produce section of your supermarket. You're shocked to see that there are no apples, cucumbers, broccoli, onions, pumpkins, squash, carrots, blueberries, avocados, almonds, or cherries. This could happen at grocery stores in the future. All the crops mentioned, as well as many others, are dependent on honeybees for pollination. 1 Your diet and \$15 billion worth of crops could suffer if the honeybees aren't available to perform their important job of moving pollen. Although there are wild bee populations that pollinate crops, domestic honeybees are easily managed and transported from place to place when their pollination services are needed.

Colonies of honeybees have experienced a number of health problems since the 1980s. However, beekeepers were very alarmed in 2006 when entire colonies of bees began to vanish. Researchers started referring to the phenomenon as Colony Collapse Disorder (CCD). The bee loss has raised alarms because one third of the world's agricultural production depends on the European honeybee. Huge, 2 monoculture farms require intense pollination activity for short periods of the year. Only European honeybees deploy armies of pollinators at almost any time of the year, wherever the weather is mild enough and there are flowers to visit.

Our collaboration has ruled out many potential causes for CCD and found many possible contributing factors. But no single cause has been identified. Bees suffering from CCD tend to be infected with many types of viruses including newly discovered ones, but these infections seem to have no direct influence on their disappearances. The picture now emerging is of a complex condition that can be triggered by different combinations of causes. There may be no easy remedy to CCD. It may require taking better care of the environment and making long-term changes to our beekeeping and agricultural practices. Although CCD probably will not cause honeybees to go extinct, nearly 100 of our crops could be left without pollinators and large-scale production of certain crops could become impossible. We would still have corn, wheat, potatoes and rice. But 3 many fruits and vegetables we consume routinely today such as apples, blueberries, broccoli and almonds could become the food of kings.

As media reports of the disappearances of honeybees surfaced, the public also started expressing concern. Many were eager to share their ideas as to the underlying cause. Various explanations were offered for disappearances but nobody had any



evidence for. The first few months of investigation, researchers kept finding things wrong with bees that were not the explanation for CCD.

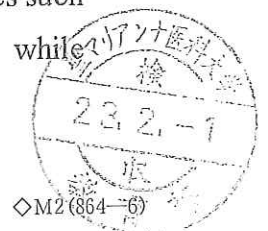
One theory favored by many concerned citizens was that bees could have been poisoned by pollen from genetically modified crops. Some of these crops may contain a toxin which acts on killing insects produced by the bacterium. When pest caterpillars feed on crops producing these toxins, they die. But already before the disappearances of honeybees, research had shown that these toxins become activated only in the intestines of caterpillars, mosquitoes and some beetles. The digestive tracts of honeybees and of many other insects do not allow them to work.

Another popular theory, and a more credible one, blamed pesticides. The two main suspects were chemicals beekeepers use to kill mites and other pesticides, either in the environment or in the very field crops the bees were pollinating. 過去の研究は、このような殺虫剤が、ミツバチのコロニーへの戻り方を記憶する能力を低下させることを明らかにした。 This seems to be a sign that these pesticides could be a contributor to CCD.

We and other experts also suspected that the bees' natural defenses might be undermined by poor nutrition. Honeybees and wild pollinators, too no longer have the same number or variety of flowers available to them because we humans have tried to neaten our environments. We have, for example, planted huge expanses of crops without weedy, flower-filled borders or fencerows. We maintain large green lawns free of any "weeds" such as clover or dandelions. Even our roadsides and parks reflect our desire to keep things neat and weed-free. But to bees and other pollinators, green lawns look like deserts. The diets of honeybees that pollinate large fields of one crop may lack important nutrients, compared with those of pollinators that feed from multiple sources, as would be typical of the natural environment.

The growing consensus among researchers is that multiple factors such as poor nutrition and exposure to pesticides can interact to weaken colonies and make them susceptible to a virus-mediated collapse. Research is now focused on understanding how these factors relate to colony collapse.

Meanwhile many beekeepers have had some success at preventing colony loss by increasing their attempts to improve their colonies' diets, keeping infections and parasites in check, and practicing good hygiene. And simple changes in agricultural practices such as breaking up monocultures could help restore balance in honeybees' diets, while



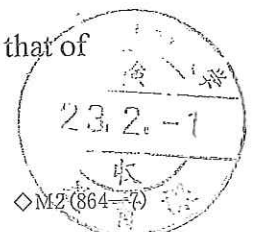
providing nourishment to wild pollinators as well. Humankind needs to act quickly to ensure that the natural relationship between flowers and pollinators stays intact, to safeguard our food supply and to protect our environment for generations to come. These efforts will ensure that bees continue to provide pollination and that our diets remain rich in the fruits and vegetables we now take for granted.

- 1) 下線部 1 を日本語に訳しなさい。
- 2) 下線部 2 と同等の意味を表す語句を、本文の中から答えなさい。
- 3) 下線部 3 はどういうことですか。日本語で説明しなさい。
- 4) 下線部 4 を英語に訳しなさい。
- 5) 下線部 5 の結果、何が起こりましたか。日本語で説明しなさい。
- 6) 下線部 6 に関して、次の問いに答えなさい。
 1. these efforts とはどのようなことか、90～100 字の日本語で説明しなさい。
 2. 下線部を日本語に訳しなさい。

2 次の英文は、ある time traveler が中世を訪れ、現代へ向けて送ったレポートである。英文を読み、問題に答えなさい。

How do you define cleanliness? Most people, when asked this question, tend to define it in terms of personal experience. They know when their kitchen work surface is clean because everything which makes it dirty has been cleared off and it has been wiped down with cleaner. What they are thus defining is the completion of a cleaning process, not a state of cleanliness itself. Medieval people do much the same thing, only using different processes. To regard a medieval kitchen as 'dirty' because it has not been wiped down with modern cleaner is to apply our own standards inappropriately. It is like someone from the distant future telling us our kitchens are dirty because we have not wiped them down with some super-cleaner invented in the twenty-third century.

Cleanliness operates on several levels. For us, the most important is probably that of



killing certain germs. Germ theory has, however, only been around since the late nineteenth century, so medieval people are a long way off understanding what germs are, let alone how they spread. Instead, with the idea that illness is a consequence of God's direction and care for the soul, they have a sense of spiritual cleanliness. For example, when saints die there is supposed to be a smell like the breaking open of many perfume bottles: the odor of holiness. For most people 2 this form of cleanliness, this saintly sweetness, is far more important than whether they have washed behind their ears or not. If a man is spiritually clean, and without sin, he is far less likely to have to go through the purifying fires of illness, and seek for God's mercy. He will smell sweet to those around him. In the modern world we have no equivalent to this form of cleanliness. Instead we have antibacterial wipes.

Once you start to break up notions of cleanliness in this way, you begin to realize that there are many varieties of cleanliness. Domestic cleanliness, public sanitation and personal hygiene can be added to spiritual cleanliness. All of them are of great importance, even if some of them are very difficult to control especially public sanitation. When you hear modern people idly refer to the Middle Ages as dirty, spare a thought for the fourteenth-century housewife. She worked hard (A) her sleeves rolled up above her elbows, taking all her time and effort to sweep floors and wash dishes. Imagine her looking up (B) concern as a rain cloud approaches just after she has laid the sheets out on the grass to dry. Of course there are some houses which are not so well cleaned, but dirty homes have implications of sinfulness, corruption and decay. No one wants that sort of label; rather, they want the opposite, (3). In a community in which everyone knows everyone else, they may be more than just a matter of common decency and be an important aspect of your personal identity. In other words, 4 中世の人々にとって、社会における地位、品位、そして誇りは清潔さの概念と強い結びつきがある。

1) 下線部 1 を日本語に訳しなさい。

2) 下線部 2 はどのようなものですか。10 字以内の日本語で説明しなさい。



3) (3)に入る最も適切なものを、選択肢から選び、記号で答えなさい。

- (a) antibacterial wipes and cleaners
- (b) cleanliness and respectability
- (c) pride and justice
- (d) public sanitation and private hygiene

4) (A) と (B) には同じ語が入る。その英語 1 語を答えなさい。

5) 下線部 4 を英語に訳しなさい。

3 次の問題の下線部の語と同じ意味を表すものを、選択肢から選び記号で答えなさい。

1) Sound cannot be conducted in a vacuum because there are no air waves to transmit it.

- (a) absorbed
- (b) carried
- (c) controlled
- (d) returned

2) There is a correlation between heredity and certain diseases, like hemophilia.

- (a) connection
- (b) difference
- (c) likeliness
- (d) similarity

3) The scarcity of oil caused the price to rise.

- (a) abundance
- (b) difficulty
- (c) sufficiency
- (d) shortage

4) Sodium and chlorine are the constituents of salt.

- (a) characteristics
- (b) components
- (c) natures
- (d) members

5) The condition of the patient has degenerated despite the operation.

- (a) approved
- (b) recovered
- (c) troubled
- (d) worsened

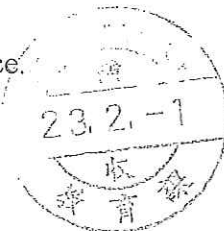
4 次の方問題の A, B が同じ意味になるように () に英語 1 語を答えなさい。

1) A: We agreed to try it.

B: We made an () to try it.

2) A: She applied for work in our office.

B: She wrote an () for work in our office.



- 3) A: I continued my work all day.
B: I worked () all day.
- 4) A: This bottle is marked "Poison."
B: This bottle contains something ().
- 5) A: As prices have been reduced, I can buy more goods.
B: Because of the () in prices, I can buy more goods.

以



