

平成29年度一般入学試験問題

外国語（英語）

【注意事項】

1. この問題冊子には答案用紙が挟み込まれています。試験開始の合図があるまで問題冊子を開いてはいけません。
2. 試験開始後、問題冊子と答案用紙の受験番号欄に受験番号を記入しなさい。
3. 問題冊子には計5問の問題が英1～英8ページに記載されています。落丁、乱丁および印刷不鮮明な箇所があれば、手をあげて監督者に知らせなさい。
4. 答案には、必ず鉛筆（黒「HB」「B」）またはシャープペンシル（黒「HB」「B」）を使用しなさい。
5. 解答は答案用紙の指定された場所に記入しなさい。ただし、解答に関係のないことが書かれた答案は無効にすることがあります。
6. 問題冊子の余白は下書きに利用しても構いません。
7. 問題冊子および答案用紙はどのページも切り離してはいけません。
8. 問題冊子および答案用紙を持ち帰ってはいけません。

受験番号	
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〔問1〕 英文の意味が通るように、空所(ア)~(コ)に入る最も適当なものを①~⑤から1つ選び、数字で答えなさい。

Vaccination is a precursor to modern medicine, not the product of it. Its roots are in folk medicine, and its first practitioners were farmers. Milkmaids in eighteenth-century England had faces unblemished by smallpox. Nobody (ア) why, but anyone could see it was true. Nearly (イ) in England at that time got smallpox and many of those who survived bore the scars of the disease on their faces. Folk knowledge held that if a milkmaid milked a cow blistered with cowpox and developed some blisters on her hands, she would not contract smallpox even (ウ) nursing victims of an epidemic.

By the end of the century, just as the waterwheels of the industrial revolution were beginning to turn the spindles in cotton mills, physicians were noting the (エ) of cowpox on milkmaids and anyone who milked cows. During a smallpox epidemic in 1774, a farmer who had himself already been infected (オ) cowpox used a darning needle to drive pus from a cow into the arms of his wife and two small boys. The farmer's neighbors were horrified. His wife's arm became red and swollen and she fell ill before recovering fully, but the boys had mild reactions. They were exposed to smallpox many times over the course of their long lives, occasionally for the purpose of demonstrating their immunity, without (カ) contracting the disease.

Twenty years later, the country doctor Edward Jenner extracted pus (キ) a blister on the hand of a milkmaid and scraped it into the arm of an eight-year-old boy. The boy got a fever but did not become ill. Jenner then exposed the boy to smallpox, which did not infect him. Emboldened, Jenner continued his experiment (ク) dozens of other people, including his own infant son. Before (ケ), the procedure would be known by Jenner's term for cowpox, *variola vaccinae*, from the Latin *vacca* for cow, the beast that would forever leave its (コ) on vaccination.

出典 : Eula Biss, *On Immunity: An Inoculation*. Minneapolis: Graywolf Press, 2014. Pages 51-52.

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|-----|-----------|---------------|-------------|---------|---------|
| (ア) | ① knew | ② know | ③ knowingly | ④ known | ⑤ knows |
| (イ) | ① always | ② any | ③ everyone | ④ none | ⑤ some |
| (ウ) | ① now | ② out | ③ so | ④ up | ⑤ while |
| (エ) | ① effects | ② influential | ③ memos | ④ part | ⑤ years |
| (オ) | ① but | ② for | ③ in | ④ over | ⑤ with |
| (カ) | ① ever | ② most | ③ past | ④ rare | ⑤ when |
| (キ) | ① before | ② from | ③ on | ④ such | ⑤ that |
| (ク) | ① during | ② into | ③ many | ④ on | ⑤ until |
| (ケ) | ① after | ② gone | ③ just | ④ long | ⑤ soon |
| (コ) | ① line | ② mark | ③ space | ④ time | ⑤ word |

〔問 2〕 下線部(ア)～(コ)に入るように各語群にある語句を最も適当な順に並べ替えて、意味の通る英文を完成させなさい。

Beneath our feet, out of sight and often out of mind, soil is probably the least appreciated source of human welfare and security. More than simply a prerequisite for farming and food production, it is a profoundly complex web of interactions that enables many of the Earth's life support systems to function.

Soil is the medium through which the world of life (biosphere) meets the world of rocks (lithosphere). This is not simply ^(ア)() () () () () growing out of the ground. It is a highly complex subsystem of our living planet where a commingling of these two worlds takes place. It is also where dynamic relationships between the atmosphere and life are sustained. It is of vital importance and yet it is no more than a thin fragile skin. This is even more the case when seen against the scale of the atmosphere above and the geology below.

Soil actually seems far ^(イ)() () () () () such a complex and multifunctioning system, especially when one considers the ways in which the different components of soil can vary. For the make-up of soil is hugely diverse. Its essential components are weathered rock, once-living things that are now dead, living things that are still alive, gases and water. A very approximate breakdown of the proportions of these would be rock at about 45 per cent, air 25 per cent, water 25 per cent and organic material 5 per cent. Of course, these proportions vary hugely, with for example peaty soils comprising mainly organic matter.

Often the most important factor in the character of soil is geology. Sandy soils are gritty and formed from rocks such as limestone, quartz or granite, or from glacial, wind-blown or riverine deposits. Silty soil has finer particles and is often very fertile, although ^(ウ)() () () () (). Another major influence on the character and properties of soil is the type and amount of biological material it contains—this can be comprised of pretty much anything that has been alive, including the decaying remains of soil fauna, leaves, wood and roots.

Soil organic matter performs a range of important functions and is ^(エ)() () () () () functions. For example, organic material in the soil can hold up to twenty times its own weight in water, and thus renders soil more resistant to the effects of drought. By storing water, soils can also ^(オ)() () () () () high rainfall periods.

The organic material in soil contains the carbon-based molecules that are the energy source that fuels what is the most important component of all—the living part. And when ^(カ)() () () () () animals, plants and microbes living and interacting below ground, the statistics quickly get quite dizzying. For example, it is estimated that ten grams (that's about a tablespoonful) of healthy soil from an arable landscape is home to more bacteria than there are people on Earth. And these bacteria might ^(キ)() () () () () some 20,000 species. It is not only the numbers and diversity that is impressive—on a hectare of arable soil (that is, a patch measuring 100 meters by 100 meters) there can be a volume of bacteria equivalent to the volume of 300 sheep!

In ^(ク)() () () () () organisms—that is, the bacteria, protozoa and

nematodes—are larger creatures, including earthworms, centipedes and various insects. This vast mass of complex living organisms undertake a number of vital jobs.

One function is decomposition. As the term suggests, this is literally the business of breaking things down to their constituent parts—and in the process liberating nutrients, thus enabling new growth. Those numberless trillions of worms, bacteria and protozoa are thus (ク)() () () () () the ecological processes that enable the productivity of living systems—at least most of those on land.

Decomposition is also so important because it is the energy source that powers the processes going on in the soil. By breaking down the carbon-based molecules in the plant and animal remains in the organic matter, the bacteria, fungi, nematodes and protozoa fuel their own growth and reproduction. Most soils are complex systems that we are only just beginning to understand. And, while for example the pivotal importance of earthworms has been known for some time, it is comparatively recently that science (コ)() () () () () the subtle roles played by other soil organisms, including fungi.

出典 : Tony Juniper, *What Has Nature Ever Done For Us?*

London: Profile Books, 2013. Pages 29-31.

(ア) 語群 : in / of / plants / reflected / the fact

(イ) 語群 : a word / describe / small / to / too

(ウ) 語群 : by / erosion / prone / to / water

(エ) 語群 : determining / how / in / soil / vital

(オ) 語群 : during / flooding / of / reduce / the risk

(カ) 語群 : comes / it / of / the complement / to

(キ) 語群 : be / comprised / from / of / representatives

(ク) 語群 : addition / the / tiny / to / truly

(ケ) 語群 : at / base / of / the / very

(コ) 語群 : a better / has / of / permitted / understanding

〔問3〕 次の英文を読んで、下記の設問に答えなさい。

So far only a few people know. The first thing to understand is that endless retelling is overwhelming. It is boring, draining, dispiriting. A tumor is hard to speak of and harder still to hear. I don't have anything else to talk about, but even after the first few attempts, my words sound dulled. It makes a poor recitation. ⁽¹⁾Everyone who hears us wants all the details and the details will be the same: a fit—hospital—a scan—a tumor—cancer—surgery—treatment—uncertainty. The framing of the sequence can be stressed to suit different audiences or the whole might need retelling again from the beginning. Hearing can be veiled by not listening. And our friends and families have their own responses that must be attended to. That is our responsibility. We owe them. We don't want to overburden them or frighten them off. This is our disaster. They are just being called upon to witness.

And where does the stress lie? We don't know. The facts are not many—surgery followed by radiotherapy followed by chemo followed by monitoring. The way the facts fall depends on how you tell it. Is it a story of disaster directly or a version of survival? What route does it take? Is it a story of duration? We don't want to give people the wrong idea but what is the idea? ⁽²⁾The thing is an ugly knot of accuracy and projection, dead weight and measured hope. Tied up in there somewhere are the statistics. Tom is beginning to describe it. I can barely speak. So together we write them a message in the form of an email.

14 September 2008

Dear Friends

We have some troubling news that you should know. A small tumor has been detected (ア) Tom's brain. It's not known yet whether it is malignant but that is possible. It needs taking (イ) and he'll be operated (ウ) in about a week.

We don't know yet what any of this means, in terms (エ) further problems or none, or possible side effects (オ) the operation. It's a very uncertain time (カ) us.

After the first shock, we are strong (キ) we can be. This is largely because Tom is (ク) the moment very well, looks well, is lucid, thoughtful, writing, working, preparing.

At the time of the operation and after, we may need some help. We don't know yet what form this might best take, it could be practical, or just to have our friends in contact, to be phoned (ケ), thought of, emailed, visited.

We will let you know when we have a date for Tom going into hospital.

(コ) love

In the study we bend over the computer, tight under the lamp. Tom presses *Send*. It is serious, this action. By agreeing to its terms and conditions we elect to turn everything pertaining to us a different shade. ⁽³⁾Once the news has gone out we cannot deny it or pretend it is not happening. I cannot say I am prepared. I don't have a coherent idea what *Send* means.

出典：Marion Coutts, *The Iceberg*. New York: Grove Atlantic, 2014. Pages 9-11.

(1) 下線部(1)を和訳しなさい。

(2) 下線部(2)を和訳しなさい。

(3) 下線部(3)を和訳しなさい。

(4) 英文の意味が通るように、空所(ア)～(コ)に入る最も適切なものを①～⑩から選び、数字で答えなさい。ただし、同じ語を2度使うことはない。文頭に来る語も小文字で示してある。

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|------|------|-------|--------|--------|
| ① as | ② at | ③ for | ④ from | ⑤ in |
| ⑥ of | ⑦ on | ⑧ out | ⑨ up | ⑩ with |

〔問4〕 次の英文を読んで、下記の設問に答えなさい。

As a distance runner, I already had a stash of reusable sports bottles at home. And living in the Bay Area, I had a fresh clean supply of drinking water running (ア) my own tap, nearly free! Why was I spending \$1.50 for a new bottle of Dasani or Aquafina every time I went to the gym when, with a little planning ahead, I could bring water from home? Or fill up a bottle from the free water fountain on the workout floor? I didn't realize then how important this step would be. In the past few years, I've learned that the environmental impact from bottled water is about more than just the plastic bottle. But back then, it just seemed like an easy way to reduce my consumption of new plastic. The biggest challenge was remembering to bring my bottle.

I kept a mental list of the gear I needed to stash in my backpack for the gym: athletic shoes, socks, shorts, towel, lock, and key. Now I just had to add a reusable bottle. The first few times, I remembered it. And then one evening, I forgot. Standing half-dressed in the locker room, rummaging frantically through my backpack, I realized I hadn't packed a bottle. ⁽²⁾Panic set in. How could I spend thirty to sixty minutes on a cardio machine without water? I was sure I would shrivel up and die. Everyone had water with them. Everyone. There were bottle holders attached to the treadmills and elliptical trainers and stair climbers, which meant that even the equipment manufacturers understood the importance of constant hydration! What should I do? Give (イ) once again to the vending machine? Leave without working out? Buy a new (plastic) sports bottle from the front desk? Or do the nearly unthinkable ... work out without water?

And then I remembered Greenbelt Lake. Back when I was in college in the mid-1980s, my dad and I took (ウ) running. He would meet me at my apartment first thing in the morning, I'd throw (エ) my running shoes, and we'd head (オ) the street to join the other fitness buffs doing laps around the man-made lake in my suburban Maryland neighborhood. We each drank a glass of water before leaving the house and again when we got back home. There might have been a water fountain in the park for rehydrating between laps (except I don't think we called it "hydrating" back then), but we certainly didn't buy bottled water. The only bottled water brands we'd heard (カ) were Perrier, which was for rich people, and Evian, which we joked was "naïve spelled backwards." Why would anyone pay money for expensive water in a bottle? The point is that we survived our runs without carrying water. ⁽³⁾The memory calmed me down, and that night at the gym, I made a plan. I would drink from the water fountain before my workout, and if I needed to, I could actually get (キ) the machine and walk to the fountain to drink some more. The plan worked. I completed my routine without a bottle of water by my side, and I didn't die.

I'll admit that going back and forth to the water fountain was not exactly convenient. It's much nicer to have my own bottle by my side, and these days I rarely forget to bring my reusable bottle or travel mug with me when I go out. But realizing that I could survive without the instant gratification that disposable plastic provides was actually pretty empowering. The bottled water industry spends over \$150 million per year on advertising in the United States to

convince us we can't be healthy or satisfied without its product. ⁽⁴⁾I had bought into the bottled water myth. And that night at the gym, I broke free.

出典 : Beth Terry, *Plastic Free: How I Kicked the Plastic Habit and How You Can Too*.
New York: Skyhorse Publishing, 2012. Pages 80-81.

- (1) 英文の意味が通るように、空所(ア)～(キ)に入る最も適切なものを
①～⑦から選び、数字で答えなさい。ただし、同じ語を2度使うことはない。
① down ② from ③ in ④ of ⑤ off ⑥ on ⑦ up
- (2) 下線部(2)を和訳しなさい。
- (3) 下線部内にある The memory を具体的に示しながら、下線部(3)を和訳しなさい。
- (4) 下線部内にある myth を具体的に示しながら、下線部(4)を和訳しなさい。

[問 5] 次の和文を読んで、下線部(1)～(3)を英訳しなさい。

(1) 科学者さんたちもなかなかイキなことをする。そんな思いがわいた。火星と木星の軌道のあいだにうかぶ小さな天体がフレディマーキュリーと名づけられた、とのニュースを目にしたときだ。 (2) 史上最高ともたたえられるロック歌手にちなんでいるのは、
いうまでもない。英国のロックバンド、クイーンのフレディ・マーキュリーが亡くな
ったのは 1991 年。その年に、くだんの小惑星は発見されていた。 (3) 国際天文学連合と
いう学術団体が命名を発表したのは、生きていれば 70 歳になるという誕生日だった。
そんなタイミングで、かつて歌ったそのままに「空をかける流星」となったわけだ。

出典：日本経済新聞 春秋 朝刊 2016 年 9 月 8 日付。