平成27年度　　〔試験時間　60分〕

F 6　英　語

この冊子は，英語の問題で1ページより10ページまであります。

〔注　意〕

(1) 試験開始の指示があるまで，この冊子を開いてはいけません。

(2) 監督者から受験番号等記入の指示があったら，解答用マークシートに受験番号と氏名を記入し，さらに受験番号と志望学科をマークしてください。

(3) 解答は，所定の解答用マークシートにマークしたものだけが採点されます。

(4) 解答用マークシートについて

① 解答用マークシートは，絶対に折り曲げてはいけません。

② マークには黒鉛筆(HBまたはB)を使用してください。指定の黒鉛筆以外でマークした場合，採点できないことがあります。

③ 誤ってマークした場合は，消しゴムで丁寧に消し，消しくずを完全に取り除いたうえ，新たにマークしてください。

④ 解答欄のマークは，横1行について1箇所に限ります。2箇所以上マークすると採点されません。あいまいなマークは無効となるので，はっきりマークしてください。

⑤ 解答用マークシート上部に記載されている解答上の注意事項を，必ず読んでから解答してください。

(5) 試験開始の指示があったら，初めに問題冊子のページ数を確認してください。

ページの落丁・乱丁，印刷不鮮明等に気づいた場合は，手を挙げて監督者に知らせてください。

(6) 問題冊子は，試験終了後，持ち帰ってください。

1 Read the passage and answer the questions below. (60 points)

The concept of conservation triage is based loosely on medical triage, a decision-making system used by battlefield medics since the Napoleonic Wars. Medical triage has several variations, but all of them involve sorting patients for treatment in difficult situations where time, expertise, or supplies, or all three, are scarce. The decisions are agonizing (1) but are considered essential for the greater good.

In 1973, however, when the U.S. Congress passed the Endangered Species Act, (2) the mood was not one of scarcity but of generosity. The act, still considered the most powerful environmental law in the world, stipulated eligibility for protection for all non-pest species, from bald eagles to beetles. Later court decisions confirmed its broad reach. In their book *Noah's Choice*, the journalist Charles C. Mann and the economist Mark L. Plummer describe the act's reasoning as the Noah Principle: all species are fundamentally equal, and everything can and should be saved, regardless of its importance to humans.

Trouble arose in the late 1980s, when proposed endangered-species listings of the northern spotted owl and some salmon varieties threatened the economic interests of powerful timber and fishing industries, setting off a series of political and legal attempts to weaken the law. Environmentalists fought off the attacks, but the bitter struggle made many supporters suspicious (3) of any proposed changes to the law, even those intended to increase its effectiveness. In particular, proponents feared that any overt attempt to prioritize endangered species — to apply the general principle of triage — would only strengthen opponents' efforts to try to cut species from the list. If such decisions (4) had to happen, better that they be made quietly, out of political reach.

"The environmental community was always unwilling to talk about triage,"

says Holly Doremus, a law professor at the University of California, Berkeley. "Even though they knew it was going on, they were unwilling to talk about it."

Today triage is one of the most provocative ideas in conservation. To many, it invokes not only political threats to laws such as the Endangered Species Act but an abandonment of the moral responsibility for nature implied in the Noah Principle.

Conservationists who are pushing for explicit triage say they are bringing more systematic thinking and transparency to practices that have been carried out implicitly for a long time. "The way we're doing it right now in the United States is the worst of all possible choices," says Tim Male, a vice president at Defenders of Wildlife. "It essentially reflects completely ad hoc prioritization." Politically controversial species attract more funding, he says, as do species in heavily studied places: "We live in a world of unconscious triage." (5)

In recent years researchers have proposed several ways to make triage decisions, with the aim of providing maximum benefit for nature as a whole. Some scientists argue for weighting species according to their role in the ecosystem, an approach we might call "function first." Threatened species with a unique job, they say, or "umbrella" species whose own survival ensures the survival of many others should be protected before those with a so-called redundant role. One example is the campaign to protect the Rocky Mountains' high-elevation whitebark pines, trees stressed by warming temperatures and associated beetle outbreaks. Because high-fat whitebark pine nuts are an important food source for grizzly bears in the fall and spring, many conservation groups view the pine as a priority species.

The advantage of this function-first approach is that it focuses on specific ecological roles rather than raw numbers of species, giving conservationists a better chance at protecting functioning ecosystems. The approach, however, is useful only in well-understood systems, and the number of those is small. An exclusively function-first analysis would almost certainly leave many

ecologically important species behind.

As an alternative, the EDGE (Evolutionarily Distinct and Globally Endangered) of Existence program run by the Zoological Society of London argues for prioritizing species at the genomic level, an approach we might call "evolution first." Rather than focusing on well-known species with many near relatives, the EDGE program favors the most genetically unusual threatened species. Examples include the two-humped Bactrian camel; the long-beaked echidna, a short, spiny mammal that lays eggs; and the Chinese giant salamander, which can grow to six feet in length.

The evolution-first approach emphasizes the preservation of genetic diversity, which can help all the world's species survive and adapt in fast-changing environmental conditions by providing a robust gene pool. But as the University of Washington ecologist Martha Groom points out, exclusive use of the approach could miss broader threats that affect entire taxa*, leaving groups of species vulnerable to wholesale extinction. "What if a whole branch of the evolutionary tree is endangered?" she asks. "What do we do then?"

Of course, species are valuable for many different reasons. Some play a vital role in the ecosystem, some have unique genes, some provide extensive services to humans. No single criterion can capture all these qualities. The Wildlife Conservation Society combined different triage approaches in its analyses: it gave priority to threatened species that have larger body size and wider geographic range, reasoning that protection of these creatures would likely benefit many other plants and animals. (6) It also gave higher rankings to species with greater genetic distinctiveness. The experts then considered more subjective qualities, such as cultural importance and charisma, which, like it or not, are important to fundraising.

Groom, who helped to lead the society's analysis, says it opted for the combined approach because much of the information she and her colleagues needed was unknown or unquantifiable. "There's an awful lot of uncertainty

and ignorance about all species," she says. But with a combination of available data and expert opinions, the analysis identified a small group of "global priority" species that the organization can focus on.

(Adapted from "Which Species Will Live?" by Michelle Nijhuis)

Note

taxa : biological categories

(1) Which of the items below is the closest in meaning to the underlined part (1)? Choose one from the choices and mark the number on Answer Sheet.

1 delightful 2 offensive 3 painful 4 realistic

(2) Which of the items below best explains the situation suggested by the underlined part (2)? Choose one from the choices and mark the number on Answer Sheet.

1 The Endangered Species Act was accepted without any objections and an even more powerful act was later passed to protect endangered species.

2 The effectiveness of the Endangered Species Act was unquestionable but it was decided a minimum of the budget would be spent on non-pest species.

3 As the influence of the Endangered Species Act was so significant that a new proposal of extra tax to support the act was offered.

4 The Endangered Species Act protected all non-pest species uniformly and its power was upheld by the legal system.

(3) Which of the items below is the closest in meaning to the underlined part (3)? Choose one from the choices and mark the number on Answer Sheet.

1 distrustful 2 nervous 3 supportive 4 tired

(4) Which of the items below is the closest in meaning to the underlined part (4)? Choose one from the choices and mark the number on Answer Sheet.

1 to alter the law by removing some species from the list
2 to cooperate with timber and fishing industries for retaining the law
3 to keep politicians from being involved in the argument about the law
4 to register more species on the list to make a new law approved easily

(5) Which of the items below is the closest in meaning to the underlined part (5)? Choose one from the choices and mark the number on Answer Sheet.

1 We are already doing a kind of triage without clear standards to sort out endangered species.
2 We are already doing a kind of triage because it is obvious that endangered species are not a matter of concern.
3 We are already doing a kind of triage although we are far behind other countries in fundraising for nature conservation.
4 We are already doing a kind of triage notwithstanding our good understanding of how natural selection is going on.

(6) Which of the items below summarizes the underlined part (6)? Choose one from the choices and mark the number on Answer Sheet.

1 the Noah Principle
2 the function-first approach
3 the evolution-first approach
4 the culture-centered approach

(7) For each of the following statements, mark Answer Sheet with either T if it is true or F if it is false.

1 The concept of conservation triage based on the Noah Principle was embodied in the Endangered Species Act.

2 Many people argue that the idea of conservation triage takes the moral responsibility for nature that the Endangered Species Act gave up.

3 The function-first approach protects high-elevation whitebark pine trees because they are important for the environment where grizzly bears survive.

4 Deep knowledge about how the ecosystems work is necessary in order to make the function-first approach successful.

5 The two-humped Bactrian camel and the Chinese giant salamander are examples of those to be saved by the function-first approach.

6 According to the evolution-first approach, the most genetically unusual threatened species must be considered more important than other endangered species.

7 The Noah Principle and the evolution-first approach share the responsibility to create friendly conditions for any species on the verge of extinction.

8 There might be a universal standard that determines some species are more valuable than others.

9 The Wildlife Conservation Society does not consider cultural aspects of threatened species because they do not attract political attention.

2 Read the passage and answer the questions below. (40 points)

The courtyard was the size of a city block, with trees, parking lots, and playgrounds. Trailing at a considerable distance, I saw Perelman* and his mother moving across a grassy field. Even though I knew he had known English quite well at one time in his life, I thought it best to speak Russian with him to put him at ease.

"Grigori Yakovlevich?" I said, employing his middle name, in polite Russian form. "Is it you?"

Perelman's head rotated slowly. He appraised me from the corner of one eye. He said nothing. "Excuse me, please," I continued. "I don't want to bother you. But I have come from America to speak with you."

Up close, Perelman looked about five-foot-ten and slighter than I had imagined. He was (a) (1 appeared 2 he 3 in 4 less 5 menacing 6 than) pictures. He did not waste thought on his appearance, though.

Perelman spoke with a high-toned, birdlike voice. And he knew what to say. "You're a journalist?" he asked. His mother peeked at me from behind his shoulder, then pulled away. I nodded. Perelman looked at the sky, letting out a pained sigh. We took several small steps together. "(1)" he asked.

I told him. He nodded in recognition but said, "I don't give interviews."

"I know," I said. "That's okay." Perelman and his mother stopped walking. They looked me up and down, as though what I'd said had confused them. I didn't know how this was going to go, but at least Perelman had not run away. So I put on a big smile. "(2)" I said. And to my surprise, both the terrifying recluse and his nervous mother let out a laugh. They were disarmed. I was in.

"How did you know we would be here?" Lyubov Perelman asked, stepping out from behind her son. She wore thick glasses, and her cheery face puffed out beneath the beret.

"I'm embarrassed to say," I told her.

"Well?" she said.

I nodded toward the street. "I've been sitting in a car out there waiting for you."

"Really?" she said.

"It wasn't so bad," I said. "I had a book."

"(3)" Perelman asked me.

"I have a connection," I said. "With the police."

His eyes went wide. "The police?" he said. "Are you Russian?"

"American."

He looked at me curiously. "Are you sure you're not Russian?"

By all signs that I could interpret, Perelman was eager to speak with me, glad for human contact.

"(4)" I asked. Perelman shrugged, and we kept on. He had laughed once, I thought. Maybe he would laugh again. "I was nervous," I told him. "Everybody says you are frightening." Perelman squinted at the sky as if contemplating something I would never understand.

Lyubov Perelman said, "If you're not getting an interview, (b) (1 of 2 point 3 the 4 this 5 what's)?"

Perelman put his arm around her. "It's okay, Mother," he reassured her. "We're just walking."

Considering all I had learned about Perelman, (c) (1 amazed 2 behavior 3 considerate 4 me 5 of 6 this display). And it emboldened me. No one had gotten this close to him in years. "I understand you're not practicing math anymore," I said. "(5)"

"I have left mathematics," he said. "And what I'm doing now, I won't tell you."

I was ready with another question, but he had one of his own. "(6)" he asked. "You speak like someone who was born in Russia and left at eight or nine, then came back as an adult. You have this sound."

Note

Grigori Yakovlevich Perelman(1966-) : a distinguished Russian mathematician who was awarded the Fields Medal in 2006.

(1) Fill in the blanks (1) to (6) with the items below. Choose only one item for each blank and mark the number on Answer Sheet.

1 Can you tell me what you are working on?

2 Do you mind if I walk with you for a little bit?

3 From which publication?

4 Good weather today, huh?

5 How did you find out the address?

6 You're really not Russian?

(2) Put the words in the brackets ((a)) ((b)) ((c)) into the correct order. Mark the numbers correctly, from top to bottom, on Answer Sheet.