

令和8年度
一般選抜（前期）

11時30分～13時00分

英 語

問 題 冊 子 1 ～ 9 頁
解 答 用 紙 1 ～ 2 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、問題冊子は表紙を上、解答用紙は裏面を上にして置き、問題冊子は開かないこと。
3. 試験開始の合図〔チャイム〕の後に問題冊子の表紙ならびに解答用紙の全ページの所定の欄に受験番号と氏名を記入すること。
4. 解答は定められた解答用紙を用い、はっきり読みやすく記入すること。
また解答欄以外には何も書かないこと。
5. 試験開始60分以内および試験終了前10分間は、途中退場を認めない。
6. 途中退場、質問、トイレ、体調不良等で用件がある場合は、挙手のうえ監督者の指示に従うこと。
7. 問題冊子に、落丁や乱丁があるときは、挙手のうえ交換を求めること。
8. 試験終了の合図〔チャイム〕があったときは、ただちに筆記用具を置くこと。
9. 試験終了の合図〔チャイム〕の後は、解答用紙は裏返しにして、通路側に置くこと。
なお、途中退場の場合は解答用紙を裏返しにして、問題冊子の上に置くこと。
10. 問題冊子は持ち帰ること。ただし、途中退場する場合は問題冊子を持ち帰ることはできない。
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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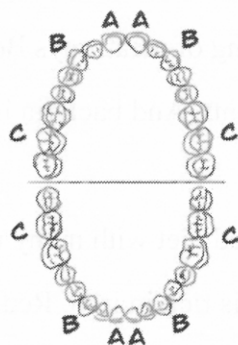
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英文を読み問題に答えなさい。指示がある場合以外は日本語で答えること。

Vampires have fascinated people for centuries. These fictional creatures take many human-like forms, including the famous Count Dracula and Morbius of the Marvel Universe. But most have one common feature: long, sharp canine teeth. These fangs help vampires bite the necks of victims to feast on their blood.

Many real bloodthirsty creatures exist in nature. Vampire bats are perhaps the most famous. Mosquitoes and ticks also make the list, as do some spiders and moths. But it would be hard to turn a human body—even an undead one—into a blood-drinking monster. “We can’t survive the way vampires do,” says David Begun, a paleoanthropologist* at the University of Toronto. In real life, no primates survive on blood, and to do so, vampires would need to rework both their human-like mouths and intestines,** inherited from our plant-eating ancestors.

In popular media, vampires bite the skin to drink blood using knifelike upper canine teeth. Humans occasionally use their canines to tear food, too. But any vampire would probably struggle to successfully break skin. Today, human canines are not suitable for biting through things because they resemble our front teeth (the incisors) and have slowly shrunk over time. (A)Like many primates today—including our close relatives, chimpanzees and gorillas—our ancestors once had large, pointed canines that sharpened themselves by rubbing against neighboring molars.



A: incisors 前歯
B: canine teeth/canines, fangs 犬歯
C: molars 臼歯

As anthropologists note, these teeth weren’t primarily for eating. Instead, these large canines were likely for threatening rivals and self-defense. Over time, these teeth grew smaller as our ancestors evolved to live in cooperative groups, reducing the need for such

defensive features. So, if vampires were to exist and bite into skin effectively, they would need to regain large canines and make them much sharper—similar to those of vampire bats, the only truly blood-drinking mammals. These bats have permanently sharp incisors without enamel, something no primate has.

Even movies that show vampires growing sharp canines whenever they want are unrealistic. Our permanent teeth don't change much over our lifetimes, and their size, number, and shape are fixed by our genes. According to Begun, some rodents—such as beavers, squirrels, and rats—have incisors which grow continuously, but they cannot control when they grow. In fact, these animals must wear down their teeth and keep them short by biting hard things; if not, the teeth can grow too long, making it hard to eat, hurting the mouth, or even pushing into the skull.

If vampires actually existed, getting blood from victims would be only (B)the first challenge. Beyond obtaining blood, the second challenge would be digesting it and using it to maintain their eternal life. In fact, blood is not very nutritious: It is low in calories and made mostly of water and protein. (C)Because of their human-like intestines, any vampire would probably suffer from poor nutrition or even certain toxic effects, as humans can't survive on blood alone.

Humans need a diverse range of nutrients, vitamins and minerals that aren't present in blood because we inherited our digestive systems from a long line of omnivores—animals that eat both plants and other animals. Like today's chimpanzees, our ape ancestors would've likely eaten mostly plants with an occasional helping of meat, says Begun. Long, coiled intestines probably helped them break down tough plants. And bacteria in their guts likely helped further digest this food and absorb nutrients.

This evolutionary history means humans require a varied diet with many nutrients to survive. Blood, however, contains few of these nutrients but is rich in iron. Red blood cells hold about 70 percent of the iron in our bodies, where it helps carry oxygen to organs. But consuming too much iron can be toxic to humans, who have no way to digest or remove large amounts of it. This iron overload can damage body organs, the nervous system and

even cause death.

Unlike humans, vampire bats have evolved ways to digest blood. Research suggests that vampire bats lost a gene that blocks intestinal cells from absorbing too much iron. Those gut cells are also short-lived and regularly replaced. This lets the bats quickly absorb lots of iron and eliminate it through their waste. Meanwhile, their gut bacteria help break down proteins. These microbes may also produce extra vitamins not found in blood.

Scientists are still trying to understand why vampire bats started feeding on blood. What is certain is that, over time, unique environmental pressures shaped them into blood specialists. Whatever led bats to their taste for blood, it's clear humans weren't shaped by these same pressures. And changing how a real species eats usually requires tens of thousands, if not millions, of years of evolution. That's a lot more involved than the single bite needed to make a fictional vampire.

Still, this reality shouldn't stop movie-goers from enjoying vampires, Begun says. "It's still OK to enjoy a vampire movie or a vampire TV show, even if it's not actually feasible."

*paleoanthropologist: a scientist who studies the evolution and fossils of early humans

**intestines: also called "guts"; the long-tube organ in the body where food is broken down and nutrients are absorbed

[1] 下線部(A)に関して、以下を説明しなさい。

a) 目的

b) 現在の状態とそのようになった背景

[2] 下線部(B)はどのようなことかその理由も含め、説明しなさい。

[3] 下線部(C)に関して具体的にどのようなことか 80～100 字で説明しなさい。

[4] 下線部(D)が示す最も適切なものを選び記号で答えなさい。

- (a) The situation where scientists lack a complete explanation for the bats' dietary change
- (b) The fact that altering a species' feeding habits demands an extended, complex biological process
- (c) The notion that environmental pressures alone can quickly transform any species' dietary habits
- (d) The discovery that vampire bats adapted to drinking blood due to environmental pressures

[5] 本文の内容と合致するものを2つ選び記号で答えなさい。

- (a) Begun suggests that understanding the scientific inaccuracy of vampire fangs should diminish our appreciation of classic vampire stories like Dracula.
- (b) Certain rodents must actively shorten their front teeth to prevent dental problems that could interfere with feeding.
- (c) Early human ancestors maintained a balanced diet with roughly equal proportions of plant and animal sources.
- (d) Vampire bats lack a genetic mechanism that would otherwise prevent excessive iron absorption in their intestines.
- (e) Vampire bats maintain their razor-sharp incisors through a layer of specialized enamel that resists damage.

More than 30,000 years ago, humans made an amazing voyage from present-day Taiwan to Yonaguni Island in the Ryukyu Islands of southwestern Japan. It was a journey of some 225 kilometers across the Pacific Ocean's powerful Kuroshio currents, accomplished without any of the advanced technology that guides us today. [あ] But how exactly did they manage to complete such a difficult voyage? Though Paleolithic* sites on these islands contain remains of human life from that era—including stone tools, fishhooks and fire pits—they give very few clues to the boat technology of the time, likely because it relied heavily on quick-to-decay organic matter.

To answer (A)that question, a team of Japanese researchers recreated the trip. In 2019, they made a canoe about 7.6 meters long from a cedar log and launched it from eastern Taiwan. Navigating only by the wind, sun and stars, they made it to Yonaguni in 45 hours. The team details their project in two new studies published in *Science Advances*: One describes the researchers' numerical simulations, while the other describes their journey. "Before our project, no one had seriously considered how this maritime migration occurred," says lead author Yosuke Kaifu, an anthropologist at the University of Tokyo.

The researchers wanted to find out just how difficult the journey was. [い] They were also interested in the tools and strategies that prehistoric mariners may have used. Kaifu explains that archaeological evidence such as remains and artifacts cannot provide a complete picture, since the sea tends to wash such items away. So the team turned to experimental archaeology, similar to the famous *Kon-Tiki* expedition of 1947 by Norwegian explorer Thor Heyerdahl. Kaifu is referring to Heyerdahl's experimental voyage from Peru to Polynesia, which he carried out with five crewmembers on a raft made of balsa wood in the late 1940s. Aiming to confirm his theory that prehistoric humans may have sailed across the Pacific, Heyerdahl and his crew traveled thousands of nautical miles in their raft, which they called *Kon-Tiki*. [う]

Using their simulations, the Japanese researchers figured out that a dugout canoe would have been the most likely vessel used by Paleolithic humans. They had initially

thought that these mariners used rafts, but according to Kaifu, rafts proved too slow for the Kuroshio current. The simulations also helped determine the time and location of the researchers' launch. The researchers tested various seasons, starting points and paddling methods under both modern and prehistoric conditions. Then, they constructed their canoe, called *Sugime*, using stone axes. [ㄦ]

Still, the researchers found that the canoe was speedy and durable enough to cross the strait,** suggesting both that prehistoric humans had developed functional boats and that this type of sea travel was possible only for experienced paddlers with advanced navigational skills. "The Kuroshio current is generally considered dangerous to navigate," says co-researcher Yu-Lin Chang, a scientist at the Japan Agency for Marine-Earth Science and Technology. "I thought if you entered it, you could only drift aimlessly. But the results of our test voyage went far beyond what I had imagined." However, Kaifu notes that the current's strength likely made a return journey impossible for the prehistoric mariners.

Helen Farr, a maritime archaeologist at the University of Southampton in England who wasn't involved in the research, explains that such test voyages can help reveal lost histories of human migration. She notes that these experiments reveal "a level of skill and planning that is really hard to see in the archaeological record for this time period." For Farr, getting insights into specific activities like sea travel in this region, along with the human details that emerge from such research, is what makes (B)this work truly rewarding.

* Paleolithic: The Old Stone Age, a prehistoric period when humans used stone tools (roughly 2.6 million to 10,000 years ago)

**strait: a narrow stretch of sea or ocean between two land areas (e.g., the Tsugaru Strait)

1. What does the underlined part (A) refer to?

- (a) How ancient people navigated the powerful Kuroshio currents
- (b) How the Kuroshio currents affected ancient boat materials
- (c) What remains of Paleolithic human life reveal about boat technology
- (d) Why ancient boats did not leave clues about their technology

2. Why did the researchers decide to use “experimental archaeology” for their study?
- (a) The boat technique used for *Kon-Tiki* expedition was developed by a famous Norwegian explorer.
 - (b) To confirm that ancient maritime technologies were more advanced than previously thought.
 - (c) Marine conditions cause artifact loss, limiting archaeological understanding.
 - (d) To compare the tools used by ancient mariners with modern ones.
3. Which of the following was NOT simulated by the researchers for their study?
- (a) Construction tools
 - (b) Location of departure
 - (c) Season for departure
 - (d) Types of boats
 - (e) Ways of paddling
4. Fill in the gaps and complete the summary of what the researchers’ test voyage revealed.

The recreated canoe (A) that prehistoric humans had developed boats (B) crossing the strait, but only skilled mariners could (C) such crossings. The test voyage successfully crossed the dangerous Kuroshio current, (D) researchers’ expectations. However, the Kuroshio’s powerful flow probably (E) a return voyage for those ancient sailors.

- | | | | |
|---------------------|------------------|------------------|-------------------|
| A. (a) demonstrated | (b) investigated | (c) simulated | (d) tried |
| B. (a) able to | (b) capable of | (c) possible for | (d) ready for |
| C. (a) arrange | (b) avoid | (c) expect | (d) navigate |
| D. (a) advancing | (b) exceeding | (c) expanding | (d) strengthening |
| E. (a) challenged | (b) delayed | (c) limited | (d) prevented |

5. Choose the most appropriate place from the options to insert the following sentence.

In July 2019, a team of one woman and four men set out for Yonaguni without maps, often unable to see their destination in the distance.

- (a) あ (b) い (c) う (d) え

6. What does the underlined part (B) refer to?
- (a) Experimental archaeology research on maritime navigation
 - (b) Research on the reconstruction of boats using archaeological remains
 - (c) Studies to identify the best routes for prehistoric ocean voyages
 - (d) Trials of prehistoric boat designs in strong ocean currents

Developing Empathy for a Better World

Empathy is the ability to understand and share the feelings of another person.

(A)[(a)connect / (b)to / (c)it / (d)deeper / (e)people / (f)in / (g)allows / (h)way / (i)a], beyond simple words or actions. In daily life, empathy can improve relationships, build trust, and reduce conflicts. (B)When people feel understood, they often become more willing to cooperate and speak honestly.

➤ **Listen with an Open Mind**

Empathy begins when you listen carefully. Pay full attention to the speaker and do not (1) what they are saying. Avoid thinking about your reply while they are talking. Watch their facial expressions and body language, which may show emotions more clearly than words.

➤ **Imagine Their Perspective**

Empathy also means seeing the world from another person's point of view. Try to imagine how they feel and why they think that way, (2) you do not agree. Ask yourself, "(3)" This habit helps you understand different values, cultures, and experiences.

➤ **Respond with Care and Respect**

When you reply, choose words that show understanding. Simple phrases such as "I understand" or "That sounds hard" can help. Do not give advice (4) they ask for it. Sometimes, staying with them and offering comfort is enough.

➤ (5)

Empathy grows when you use it often. Look for small chances to connect emotionally. (6), like helping someone or listening to a friend, can make society kinder.

1. Rearrange the words in parentheses (A) to complete the sentence. Choose the options that come third and fifth. All words are in lowercase. Do not add any punctuation marks (such as , ; or :).

(a) connect (b) to (c) it (d) deeper (e) people (f) in (g) allows (h) way (i) a

2. Complete the sentence to match the meaning of the underlined phrase (B).

When people believe (), they often become more willing to cooperate and speak honestly.

- (a) they understand the feelings of others
- (b) they and others understand each other
- (c) others understand their feelings
- (d) they and others each understand their own feelings

3. Choose the options that best fit in the blanks (1)-(6).

- (1) (a) agree (b) interrupt (c) offend (d) annoy
- (2) (a) even if (b) because (c) so that (d) despite the fact
- (3) (a) Would I feel the same way most people do?
(b) What should I do if I didn't know their situation well?
(c) If I were in their situation, how would I feel?
(d) Why should I care about their feelings?
- (4) (a) unless (b) in case (c) while (d) as long as
- (5) (a) Reflect before You Act (b) Keep Learning from Others
(c) Express Your Emotions Clearly (d) Practice Every Day
- (6) (a) When you act kindly (b) Acts of kindness
(c) Kindness acts (d) Act kindly

以 上