

令和7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. 解答はかならず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。なお、途中退場する場合は問題冊子を持ち帰れない。
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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Ecologists have long wondered about the eating habits of different animal species. For scientists at Brown University and the National Park Service, it hadn't been obvious either how herbivores, who live on grasses, wildflowers, and trees, in Yellowstone National Park could compete for enough food to survive through the winter. However, over two years of study, using tracking data and cutting-edge molecular biology tools, these researchers were able to determine not only what herbivores in Yellowstone eat but also what strategies the animals use to find food throughout the year.

According to a leading researcher Bethan Littleford-Colquhoun at Brown University, plant life (in other words, vegetation) changes across seasons in Yellowstone. However, little was known about how these changes influenced the animals' diets* or how they managed to survive when food became scarce. Ecologists have long discussed various perspectives on these points. Some experts argue that animals would try different foods to meet their taste preferences when they can freely choose their favorite foods, storing energy for harsh conditions. Others suggest that animals might expand their food choices only under severe circumstances when competition for even less desirable food increases.

One of the research team members, Tyler Kartzinel, claimed that these two ideas couldn't be true at the same time because they contradicted each other: whether animals expand diets in advance, such as in summer, or only when scarcity forces them to, for example, in harsh winter. (A) This raised the question of how Yellowstone's herbivores could have enough resources to survive throughout the year.

To uncover the reality behind these conflicting hypotheses, the researchers analyzed two years of GPS (Global Positioning System) tracking and dietary DNA data to examine how food choices differed under varying food availability conditions—summer and winter—for five of Yellowstone's most well-known species: bison, elk, deer, bighorn sheep, and pronghorn antelope. These animals migrate (move to another place) as part of their behavior to find food.

Scientists and staff at Yellowstone tracked the animals with GPS. Researchers at Brown and many undergraduate students supervised by Littleford-Colquhoun analyzed fecal samples using a sophisticated molecular technique called metabarcoding, which helped to

identify what foods the animals had eaten. They found that all species took advantage of the seasonal abundance of wildflowers in summer and that each species concentrated its efforts on finding specific types of plants that were best suited to compete against other animals in winter. However, they also discovered that feeding behaviors were influenced by the size of the animal.

According to the study, members of the smallest species, such as deer and sheep, tended to spread out across summer fields or meadows and dramatically expanded their diets before gathering in naturally protected valleys from harsh weather where they stayed during the winter with limited available plants. (B) Larger animals like bison tended to do the opposite: In winter, they were large enough to avoid competing for decreasing food resources, so they instead went out into deep snow to find unique plants that smaller deer and sheep could not reach.

Littleford-Colquhoun stated that the study showed these species could feed far more adaptably than had previously been assumed. She noted that all species change the ways they search for food, but the way that a bison has to eat and save energy for its migration or survive a tough winter might only work for it because it is large. Meanwhile, she mentioned that other species might need to group together for protection in winter due to their smaller size.

So when is it best for animals to search for unique foods to diversify their diets—summer or winter? The answer is it depends on the kind of animal. Because of the variety of ways animals behaved in the study, the researchers learned that both hypotheses were right, but in different ways and at different times. Kartzinel said, “Biologists shouldn’t have been arguing for so long about which way of finding food is correct. Instead, they should have asked when each method works best for different groups of animals.”

The findings from this study provide valuable insights into the complex dynamics of wildlife ecology. As climate change continues to impact ecosystems, understanding how herbivores adapt their food-searching behaviors is essential for effective conservation efforts. The researchers hope that their findings can help those who protect the environment better preserve resources, helping these herbivores survive throughout the year. “If we want to help wildlife populations flourish,” Kartzinel said, “we should be maintaining a diversity of habitats and plant resources across their migration routes so that many animals, each with

their own preferences, personalities, and needs, can find what's best to support their journey.”

*diet: the kinds of food that a person, animal, or community habitually eats

[1] 下線部 (A) に関して以下を答えなさい。

(a) This が示す内容を具体的に説明しなさい。

(b) the question が示す内容を答えなさい。

[2] 以下の表は herbivores in Yellowstone の研究に関するものである。次の問題に答えなさい。

Researchers	- Scientists at Yellowstone - Staff at Yellowstone	- Researchers at Brown Univ. - Undergraduate students at Brown Univ.
Methods	Tracking	Cutting-edge molecular biology
• Technique	(あ)	(う)
• Subjects or Materials**	(い)	(え)
• Objective	(i)	(ii)

** Here, “Subjects or Materials” could be people, animals, plants, tissues, and other things analyzed in the research.

(a) 空欄 (あ) ～ (え) に入る情報を本文から英語でそのまま抜き出しなさい。

(b) 空欄 (i) (ii) に入る最も適切なものをそれぞれ選び記号で答えなさい。

- a. To classify the microorganisms into types
- b. To collect data on feeding behavior
- c. To create the maps of fields, meadows and valleys
- d. To identify types of foods eaten
- e. To observe the best season for wildflowers to flourish

[3] 下線部 (B) が示す内容を 100～120 字で説明しなさい。その際、比較対象に関することも明らかにすること。

[4] conflicting hypotheses に関して、明らかになったことを 50 字～70 字で説明しなさい。

[5] この研究に基づき、研究者が今後期待していることは何か説明しなさい。

① Are you a logical, precise thinker, or would you say that you're more free-spirited and artistic? If you're the former, somebody's probably told you at some point that you're a left-brained person, and if you're the latter, right-brained. The idea that the right side of the brain is creative and the left side is logical, and that our personal qualities depend on which side works better, is common in popular psychology. In fact, there are even businesses that are based on this idea. There are self-help books, personality tests, workshops, and even treatments that aim to help you use the stronger side of your brain, make the weaker side stronger, or balance the two so they stop fighting. However, the belief that people are "right-brained" or "left-brained" is a myth. While we all possess unique personalities, abilities, and ways of thinking, there is no scientific evidence that these qualities are controlled by one stronger side (more dominant side) of the brain. Modern research using brain scans has found no support for this idea.

② One of the main problems of the right-brain/left-brain myth is its dependence on overly simplistic notions about how the brain works. For example, math is often linked with the left hemisphere because it involves logic, while the arts are associated with the right hemisphere because they are considered creative. However, mathematics is not only logical; it also requires significant creativity. So, would a gifted mathematician be classified as "left-brained" or "right-brained"? In the same way, artistic creativity is not just about pure emotions. Many of the world's best works of art were made through careful and logical thinking. Like many widely held misunderstandings, the right-brain/left-brain myth has some truth. It is true that the brain's two hemispheres specialize in different types of tasks, but (A) this separation is much more complicated than just creativity on the right and logic on the left.

③ Much of what we know about how the two hemispheres operate comes from studying "split-brain" patients. In the 1940s, doctors found that removing the corpus callosum—the group of nerve fibers that connects the two halves of the brain—helped reduce seizures* in people suffering from severe epilepsy.** This surgery, while rare today because of improved treatments, reveals important differences between the two sides of the brain. After the

surgery, patients could still function normally in most areas, and further examination showed that each hemisphere specializes in different kinds of processing. Generally, the right hemisphere was found to be better at handling tasks related to space and visual tasks, while the left hemisphere was more focused on language and problem-solving.

④ If there's no scientific basis for the right-brain/left-brain idea, why do so many people continue to believe it? It might seem understandable. Just like how people prefer using one hand over the other, it makes sense that one side of the brain would be stronger. Another reason is that we often like to categorize ourselves and others into certain "types." Personality tests like the Myers-Briggs Type Indicator are popular even though they don't have strong scientific support, because people are attracted to systems that provide a framework for understanding themselves.

⑤ Many of these systems are based on a psychological phenomenon called the Barnum Effect. In psychology, this phenomenon occurs when individuals believe that personality descriptions apply specifically to them (more so than to other people) despite the fact that the description is actually filled with information that applies to everyone. For example, when psychologists gave people fake personality tests, the participants often thought the false feedback was very accurate, especially when it was positive. The right-brain/left-brain myth works in a similar way by giving people general but positive information that seems personal. Descriptions like "spontaneous and natural" or "rational and logical" are appealing to almost everyone.

⑥ In the end, the myth stays popular because it provides a simple and seemingly scientific way to explain our personalities. ~~(B)~~This connects to our desire to put ourselves into categories, even if the science behind it isn't true.

*seizure: abnormal electrical activity in your brain that temporarily affects your consciousness, muscle control and behavior

**epilepsy: a brain condition that causes recurring seizures

1. Why is the belief that people are either “left-brained” or “right-brained” a myth?
 - (a) Many self-help resources designed to improve brain function based on the left-brain/right-brain concept do not always achieve the desired results.
 - (b) Modern medical technologies still take a lot of time to assess data regarding our personalities, abilities, and thinking styles.
 - (c) Scientists disagree on whether talented people, such as mathematicians and artists, perform better using either the left hemisphere or the right hemisphere, or both.
 - (d) There has been no evidence found in scientific studies, including brain scans, to support the simplistic view of left-brain or right-brain dominance.
2. What does the underlined phrase (A) refer to?
 - (a) the contrast between the myth of right-brain/left-brain and its partial truths
 - (b) the difference in personal traits between left-brained and right-brained people
 - (c) the distinction of different types of specialization between the two hemispheres
 - (d) the division between the right-brain/left-brain myth and other widely held misunderstandings
3. From the paragraph ③, what can we understand?
 - (a) Many people with epilepsy later sought improved treatments.
 - (b) Removing the corpus callosum may change a patient’s dominant hemisphere.
 - (c) The idea of right-brain/left-brain dominance contains some myth.
 - (d) Two sides of the brain have their own focused processing.
4. From the paragraph ⑤, what can we understand?
 - (a) Caution should be taken with personality tests to avoid accidentally accepting false information as true.
 - (b) Our desire to categorize ourselves and others into “types” is gaining scientific support.
 - (c) People tend to believe vague personality statements, particularly when they are positive.
 - (d) The theory attempts to explain brain hemisphere functions from a psychological perspective.
5. What does the underlined word (B) refer to?
 - (a) a psychological phenomenon called the Barnum Effect
 - (b) a simple and seemingly scientific way to explain our personalities
 - (c) general but positive information that seems personal
 - (d) the evidence that supports the right-brain/left-brain myth

3

Look at the posters below. Choose the most appropriate choice for each gap.

I.

Tips to prevent invasive alien species

- Do not bring them in.

It is important not to carelessly bring foreign species into Japan, as their potential impact on the environment is unknown. (1), refrain from bringing back living creatures. Also, (2) the soles of your shoes and be brought in, so it is essential to clean your shoes.

- (3)

When pets are released into the wild, their impact on the environment is unpredictable. It is crucial to take responsibility and care for your pets throughout their lives. (4)

- Do not spread them.

(5) Avoid transporting or relocating invasive species to prevent their spread to new areas. If you release a captured creature, make sure to return it to the place where it originally lived.

1. (a) Before flying to foreign countries (b) If you travel with your pet
(c) Make sure to travel abroad (d) When traveling abroad
2. (a) dirt and sand could ruin
(b) insects you bought there may fall into
(c) soil or plant seeds may unknowingly stick to
(d) those creatures might jump into
3. (a) Do not abandon animals. (b) Do not adopt a pet.
(c) Do not buy a foreign pet. (d) Do not feed wild animals.
4. (a) After choosing the best pet for you, make sure to prepare for its grave after death.
(b) Before deciding to keep a pet, consider carefully whether you can care for it until the end of its life.
(c) When you buy a pet, make sure to choose a pet shop that takes good care of animals when you cannot keep your pet anymore.
(d) When you choose a pet, carefully research what the animal eats in the wild.

5. (a) Animals often increase their territory by exploring where much of their food is available.
- (b) Animals tend to spread over the entire field so they don't have to compete with other animals.
- (c) Humans are often responsible for expanding the range of species beyond their natural limits.
- (d) Humans often keep animals in small cages to relocate them when necessary.

II.

(A)

Have you ever agreed with or shared someone else's hurtful or mean comments without much thought? Your actions may unintentionally harm others. The person on the other side of social media is a real, living human being. Before (1).

- Saying bad things about someone and (2).

Comments that deny or attack someone's character are considered abuse, not criticism. Also, refrain from carelessly reposting others' comments. Evaluate the content critically and be cautious when posting or sharing anything.

- Hiding your identity doesn't mean people can't find out who you are.

(3) in person or under your real name. Even nameless posts can be traced back to their source through technology, and you may face civil or criminal consequences. Hiding your name does not give you a free pass to say anything you like.

- Take time before posting, especially when angry.

If your post causes problems or trouble with the law, you might regret it later, but you cannot undo (4). Instead of posting in the heat of the moment, take a step back, review your message carefully, and develop a habit of pausing before hitting "Send." Additionally, consider taking a break from the internet or (5).

(1)-(5) (*All answer choices are in lowercase letters.)

- (a) accepting friends can be difficult without meeting up in person
- (b) avoid using aggressive language that you wouldn't use
- (c) following your favorite actors'/singers' accounts, check their posts
- (d) giving helpful feedback are different
- (e) keep your identity to yourself to be safe

- (f) posting, take a moment to consider how you would feel if the same words were directed at you
 - (g) posting your pictures or your personal information on social media
 - (h) talking to someone in person to help clear your mind
 - (i) what's already been said
 - (j) what you haven't done
- (A) What would be the most appropriate title?
- (a) How to deal with comments that hurt your feelings
 - (b) How you can post your comments and gain popularity without anger
 - (c) What people normally do before posting hate comments
 - (d) What you should keep in mind to avoid posting or spreading hurtful comments

以 上