

2026年度

英 語

注 意

1. 監督者の合図があるまでは問題冊子と解答用紙を開かないでください。
2. 別紙の解答用紙は、マーク用解答用紙(1)と記述用解答用紙(2)とに分かれています。指定された解答欄をまちがえないように注意してください。
3. 解答用紙(1)は直接コンピューターにかけますので、折りまげたり、よごしたりしないでください。また、枠で囲まれた部分以外には記入しないでください。
4. 解答用紙(1)にマークするときは該当する○にはっきりとマークしてください。

マークのしかた (良い例) ●

(悪い例) ○ ⊗ ⊙ ⊖

(万年筆、ボールペンなどは使用してはいけません)

5. 解答用紙(1)に誤ってマークした場合には、消しゴムで跡が残らないようにていねいに消し、消しかすをきれいに払ってください。
6. 試験開始後、解答用紙(1)には、氏名、受験番号を記入し、さらにその受験番号をマークしてください。なお、受験番号を記入するときには解答用紙(1)の[受験番号記入上の注意]をよく読んで、まちがいのないようにしてください。
解答用紙(2)には、氏名、受験番号を記入してください。
7. 試験問題はこの冊子の1～8ページに記載されています。
問題冊子の余白部分は、メモとして利用して構いません。
各問題はほぼ同じ配点になっています。それを念頭に時間配分してください。
8. 試験終了後、この問題冊子は持ち帰ってください。

- 1 次の文章を読み、設問(a)～(e)にもっとも適切なものを1～4の中から1つ選びなさい。

Scientists have long had questions about how far bees travel from their hives* to collect food. They believe bees can fly as far as 6 miles (10 kilometers) if they need to, but most of the time, they probably do not fly so far. Researchers at Pennsylvania State University wanted to get a better idea about this, so they worked with electrical engineers to develop a method to track bees. Bees are usually studied in a laboratory or near one. But the researchers wanted to develop a system that could work anywhere and be used by anyone including beekeepers.

They decided to use simple codes called “April Tags,” which are similar to QR codes. These codes are easy for cameras to track and decode, even when the lighting is not good. They are small (smaller than a fingernail) and can be glued* on to the back of a bee without causing any harm. But gluing on thousands of tags was a lot of work. The researchers focused on young bees, tagging 600 of them every two weeks. Over the spring and summer, they tagged over 32,000 bees spread across six different hives.

By placing a solar-powered camera and a tiny computer above the entrance to a hive, the researchers could track the movements of each tagged bee. They could tell when each bee left the hive and when it returned. They could also record the temperature. The new system gave the researchers a lot of information about the bees’ movements. They found that most trips outside the hive took one to four minutes. The researchers think these short trips were used for quick jobs like checking the weather or pooping*. Most trips, even longer ones, were shorter than 20 minutes.

They also found that about 34% of the bees took trips that lasted longer than two hours. The researchers say this could show that the bees were making longer trips to collect food. They noticed that the bees spent more

time out collecting when there were fewer flowers around. But some of these “long trips” could also be mistakes, where the camera did not catch the bee returning. The researchers were also surprised to find out how long the bees lived. Before the study, they thought that honeybees lived for about 28 days. But the tagged bees did not start collecting food until they were roughly two weeks old, and they continued to collect food for six weeks after that.

Scientists know that bees use a special dance to communicate with each other about where to collect food. Now the researchers at the university want to see how their new tracking information matches up with these special movements. They plan to teach beekeepers and other researchers how to use their tracking system to better understand bees.

Adapted from: NFK Editors. (2025, March 13). Scientists track bees with tiny QR codes. *News for Kids*. Retrieved from <https://newsforkids.net/articles/2025/03/13/scientists-track-bees-with-tiny-qr-codes/>

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〔注〕 hive 巣箱 glue 貼り付ける poop ふんをする

(a) What is the main topic of this passage?

1. A method of researching bees.
2. How honeybees collect food.
3. The lifespan of honeybees.
4. Various ways to use QR codes.

(b) April Tags were attached to _____.

- 1 . adult bees
- 2 . 600 bees each week
- 3 . the bees' bodies
- 4 . 34% of the bees

(c) The new tracking system _____.

- 1 . can only be used in or around a laboratory
- 2 . can only be used when there is a lot of light
- 3 . records when bees leave and return home
- 4 . records where bees are flying

(d) What did the scientists discover about honeybees' movements?

- 1 . Most of their trips were shorter than one minute.
- 2 . Roughly one-third of the bees traveled longer than two hours.
- 3 . The average length of their travel was 20 minutes.
- 4 . The bees stayed outside longer when many flowers were nearby.

(e) According to the passage, which statement is true?

- 1 . The researchers think that short trips for a few minutes are for collecting food.
- 2 . The researchers think that the tracking system will be useful for beekeepers.
- 3 . The tracking system revealed that bees lived for about 28 days.
- 4 . The tracking system revealed that bees used a special dance to communicate.

- 2 次の対話文を読み、設問(a)～(e)にもっとも適切なものを1～4の中から1つ選びなさい。

A university professor speaking with his class.

Professor Green: I want to talk about something important today. Some essays from your latest assignment seemed too perfect. I believe some of you may be using computer programs to write your essays. Let's discuss this.

Akira: But Professor, if we use a computer program to help us get ideas or check grammar, is that a problem?

Professor Green: That depends on how you use it. If it only helps you check grammar or plan ideas, that is acceptable. However, if you ask it to compose full sentences and paragraphs for you, and you simply copy that text, then it is not your own work and does not show your true ability.

Maria: But isn't it just another tool? Like using a dictionary or a calculator?

Professor Green: A dictionary gives meanings, and a calculator solves problems. However, these computer programs can generate complete essays. If you allow them to do your thinking, you lose the chance to learn and improve your writing.

Akira: I sometimes use one to create a list of ideas. Then, I review those ideas and choose the best ones to guide my writing process.

Professor Green: That is a sensible method. It shows you are engaged in your work. But it is essential to be honest about any help you receive.

Maria: I believe many students are confused because the university has not set clear rules yet.

Professor Green: True, but I insist that students use independent thinking and make a genuine effort.

- (a) What is the main topic of the conversation?
- 1 . How to use better grammar in English essays.
 - 2 . The appropriate use of computer programs in writing.
 - 3 . The difference between grammar and spelling.
 - 4 . Why students need to use computers in class.
- (b) Why does Professor Green start the conversation?
- 1 . Because he wants students to stop using dictionaries.
 - 2 . Because he wants to explain how to create computer programs.
 - 3 . Because he wants to talk about problems with the last class assignment.
 - 4 . Because he wants to teach a new writing style.
- (c) According to the professor, which use of computer programs is acceptable?
- 1 . Asking them to translate from another language.
 - 2 . Getting help with grammar or organizing ideas.
 - 3 . Letting them write the full essay.
 - 4 . Using them to copy from other students.
- (d) What can we guess about Professor Green's opinion on learning?
- 1 . He believes students learn best by thinking for themselves.
 - 2 . He does not believe in using any technology.
 - 3 . He thinks spelling is more important than ideas.
 - 4 . He wants students to use all new tools freely.

(e) What is Professor Green's reaction to the perfectly written essays he received?

1. Indifferent.
2. Negative.
3. Neutral.
4. Positive.

- 3 音楽などの芸術と脳の働きの関係について次の文章は何と説明しているか、150字から180字の日本語でまとめなさい。解答には(1)芸術が脳に与える効果、(2)子供に関する研究結果の具体例、(3)日常の実践例、の3点を必ず含めること。

Music and other forms of art can trigger brain changes because of the ability of the brain to reorganize itself. Connections between neurons* can form or break in response to music and other experiences.

Learning music makes the systems of the brain that are responsible for skills like focus, memory, and self-control more flexible, and it makes them more ready to be used — even when you're not playing music. For instance, one research shows that parts of the brain that engage with sound were more active in the kids who had taken music lessons than in those who had not. No matter what sounds they heard, kids who had received musical training processed the sounds faster and more efficiently. These kids will likely have an easier time learning other things based on sound, such as a second language.

You do not have to be trained or talented to make or enjoy art, in order to improve your learning. You can just include it in your everyday life. That might be singing with others or drumming on your desk while you do homework. Making jewelry, keeping a sketch pad, or putting together skits* with friends are all ways of making art. Some research is showing that even viewing art can cause lasting changes in how we feel and act. So, visit museums. Attend concerts. Go to the theater. All of these may help boost brainpower in beneficial ways. Let your inner artist shine.

Adapted from: Hurt, A. E. (2024, October 17). Here's why being creative is good for your brain. *Science News Explores*. Retrieved from <https://www.snexplores.org/article/why-creative-arts-good-for-your-brain>

〔注〕 neuron 神経細胞 skit 寸劇

- 4** 次のテーマで100～150語程度のエッセーを，具体例を挙げながら英語で書きなさい。

If you had to change one thing about your daily life, what would you change and why?