

公募制推薦入試

英語

I 次の英文を読み、下記の設問に答えよ。(配点 18)

Japanese-style gardens first gained attention in the United States at the 1893 world exposition in Chicago, Illinois. Over 120 years later, they continue to be a great part of American garden design. Today, there are more than 200 Japanese-style public gardens in the country, the North American Japanese Garden Association reports.

Japanese-style gardens bring together indoor and outdoor spaces, says Asher Browne of New Jersey. He creates Japanese-like gardens for people in the United States. He did his training in Kyoto, Japan. “One reason that gardens are so successful in Japan is that the house-garden relationship is set up to be so integrated,” Browne said. He added that gardens surround the house, “so it’s as if your living space extends out much further.”

Japanese garden design in the U.S. has moved beyond the commonly known features such as 2 special lights, called lanterns, and imported Japanese cherry and maple trees, says Sadafumi Uchiyama. He oversees a Japanese garden in Portland, Oregon. He is a third-generation gardener from southern Japan. Over time, Japanese gardens in the U.S. changed to look more authentic. This happened in part because of more widely available books on the subject, Uchiyama said.

Browne said that, in Japan, garden spaces are linked with 3 spaces. Wherever a person looks out from their home, a garden should look almost like a painting. He said the “idea of bringing the beauty of nature into daily lives” is an important idea in Japan. He notes that gardeners in Japan pay special attention to the beauty of rocks and stones.

John Powell is a garden builder from Weatherford, Texas, who also received training in Japan. He said Japanese gardens appeal to him because of their strong connection between indoor and outdoor space. He said that traditionally, outdoor landscaping in the United States “was very disconnected” from indoor spaces. But today, he said, more Americans like the idea of “connecting the indoors and the outdoors.”

There have been changes among Japanese-style gardens in the U.S. in recent years. In the past, the trees and plants chosen were often native to Japan. But today, the aim is to use plants that grow well in local environments. “(ア),” Browne said.

Garden designers who are experts in Japanese-style gardens say one common misunderstanding is that this kind of garden does not require much work. But they note that Japanese gardens sometimes (1) even more (2) gardens (3) involve (4) other kinds of (5) than (6) work). Uchiyama said these gardens require “constant small actions.” He noted that only 20 percent of land in Japan is livable.

“So, people learn to care for their environment,” he said. One way they do that is by caring for their gardens .

(Source: Japanese Gardens Bridge Indoor, Outdoor Space by Ashley Thompson, VOA Learning English, Oct 31, 2021. Reproduced with permission of Voice of America.)

(1) 下線部 1) “integrated” の意味として適切でないものを、次の中から 1 つ選び、その番号をマークせよ。

- ① blended ② combined ③ maintained ④ united

(2) 空所 ～ に入る最も適切なものを、次の中からそれぞれ 1 つ選び、その番号をマークせよ。

① many ② some ③ as ④ that

① quiet ② public ③ vacant ④ indoor

① often ② hardly ③ highly ④ rarely

(3) 空所 (ア) に入る最も適切なものを、次の中から 1 つ選び、その番号をマークせよ。

- ① More Japanese gardens in the U.S. will be surrounded by cherry trees
② It's very possible to create a wonderful Japanese garden using plants that are all native to the U.S.
③ The next aim is to remove American tradition from Japanese-style gardens
④ We have to increase garden designers to make Japanese gardens more common in the U.S.

(4) 下線部 2) (① even more ② gardens ③ involve ④ other kinds of ⑤ than ⑥ work) を並べかえて英文を完成し、①～⑥の中で 3 番目にくるものの番号をマークせよ。

(5) 本文の内容に合わないものを、次の中から 1 つ選び、その番号をマークせよ。

- ① アメリカで初めて日本庭園が注目されたのは 100 年以上前のことである。
② Browne 氏も Powell 氏も日本で修業したことがある。
③ Powell 氏によれば、日本庭園に見られる建物と庭とのつながりを好意的に見るアメリカ人が増えている。
④ Powell 氏は、日本庭園は小さな作業をコツコツ続ける必要があると述べている。

Ⅱ 次の英文を読み、下記の設問に答えよ。(配点 18)

Scientists are taking a second look at footprints made in ash from a volcano millions of years ago in modern-day Tanzania. The footprints were first found in the 1970s. Scientists started taking another look at them in 2019. They were surprised to discover that the footprints in the ash were made by two different species. Two 8 of tracks were discovered in 1976 and 1978. At the time, scientists believed they were left by a human ancestor and another creature, like a bear. However, now the scientists believe the footprints may have been made by two different species of human ancestors.

Ellie McNutt of Ohio University is the lead writer of the study published in *Nature*. McNutt noted the tracks are the first evidence of walking on two feet in the human fossil record. Jeremy DeSilva of Dartmouth College co-wrote the study. DeSilva said the footprints show there were different ways of walking upright at that time. That is because the set of footprints 9 in 1978, also from the area, show a different way of walking. The footprints found in 1978 have been linked with the human ancestor known as *Australopithecus afarensis. That is the family of early humans that ‘Lucy’ belongs to. Lucy is a famous group of bones found in Ethiopia in 1974.

Years ago, scientists did not think the footsteps found in 1976 were connected to humans because one foot crossed over the other as the being walked. This is called “cross-stepping,” DeSilva said. He called it “peculiar.” The scientists believe the being¹⁾ which made the newly found steps²⁾ was about one meter tall. But they can only guess about other qualities it might have had. DeSilva said it is possible the steps were taken by an unknown human ancestor or it could have been one³⁾ already known.

Scientists say the ancestors of modern humans separated from chimpanzees between 6 and 7 million years ago. Walking on two feet was an important evolutionary step. So, scientists are excited by the new finding. Changes in the bones of the hips, spine, feet and legs permitted human ancestors 10 upright. This happened millions of years before modern human beings, known as homo sapiens, appeared 300,000 years ago. Scientists think the changes might have happened so that early humans could better see dangerous animals in the African grasslands.

注 *Australopithecus afarensis アファール猿人

(Source: New Evidence Found of Early Human Ancestors Walking Upright by Dan Friedell, VOA Learning English, Dec 5, 2021. Reproduced with permission of Voice of America.)

(1) 空所 ～ に入る最も適切なものを、次の中からそれぞれ1つ選び、その番号をマークせよ。

① pieces ② sets ③ classes ④ ways

① was discovered ② has discovered
③ had discovered ④ discovered

① to walk ② walk ③ walking ④ will walk

(2) 下線部1) “the being” の意味として最も適切なものを、次の中から1つ選び、その番号をマークせよ。

① the creature ② the human
③ the chimpanzee ④ the researcher

(3) 下線部2) “steps” の意味に最も近いものを、次の中から1つ選び、その番号をマークせよ。

① Can you go up the steps more slowly?
② I saw someone’s steps in front of the house.
③ We need to take steps to reduce expenses.
④ We made large steps for world peace.

(4) 下線部3) “one” が表すものとして最も適切なものを、次の中から1つ選び、その番号をマークせよ。

① a step ② a modern human
③ a human ancestor ④ a quality

(5) 本文の内容に合うものとして最も適切なものを、次の中から1つ選び、その番号をマークせよ。

① In 2019 scientists started to look for the footprints made in ash.
② Scientists have now concluded that the footprints that were found in the 1970s were left by a human ancestor and another animal.
③ Lucy was a member of the group searching for bones in Ethiopia in 1974.
④ Early humans might have learned to walk upright in order to detect their enemies more easily.

Ⅲ 次の食パンで作るメロンパントーストについて述べた英文を読み、下記の設問に答えよ。
(配点 20)

Melonpan consists of two main components: a fluffy, cloud-like dome of bread and a sugar-crusted hatched top. Every crunch of crystalized sugar is followed by a little puff of billowing softness, making for a sweet, sweet harmony. It is one of the most beloved breads in Japan, and if you've had one firsthand, it's clear why. 15 melonpan can be purchased at many Japanese bakeries, making them at home can be far more time consuming — and that's where melonpan toast comes in. It has the same textures and flavors, but without the hours in the kitchen.

This recipe is adapted from a well-known vegan food creator who has cultivated a large social media following for her innovative Asian dishes. She first shared her melonpan toast on her food blog in October 2020, but the recipe really went viral later on TikTok, 16 it has over 650,000 views. As a child, her mom would bake up fresh melonpan as a weekend treat, but as her family got older and busier, her mom adapted the same melonpan technique for toast, which saved time while keeping all of the flavor.

Her original recipe calls for melted vegan butter, but this version uses unsalted dairy butter instead. The melted butter is then combined with sugar and flour to form the sugar cookie topping. You can simply smear it on top of a slice of milk bread, but to get a more precise topping, gently roll it out between parchment paper and then trim away the edges to create a bread-sized square before indenting the lines on top.

From start to finish, the entire process takes about 10 minutes to make two slices. Now time yourself (① ready ② out ③ getting ④ go ⑤ to) and walking to a bakery, and it'll be clear what's faster.

RECIPE

Makes 2 slices

Cook: 10 mins.

Note: If you don't have a toaster oven, use an oven broiler. Toast one side of the bread under high until golden brown, about three minutes. Then spread the cookie dough on the untoasted side and broil for three minutes, or until lightly golden brown, rotating the pan about halfway through.

- 28 grams (2 tablespoons) , melted
- 45 grams (4½ tablespoons) all-purpose flour
- 25 grams (2 tablespoons) white sugar, plus more for sprinkling
- 2 slices milk bread

1. In a small bowl, combine the melted butter, flour and sugar using a spoon. Mix until a ball of cookie dough forms. Set aside.
2. Spread the cookie dough evenly over one side of each bread slice. Using the back of a small knife, create hatch marks to resemble melonpan. Top with a small sprinkle of sugar.
3. Toast in a toaster oven for five minutes, or until crisp and lightly golden brown. (ア) from the oven. (イ) immediately.

(Source: The Japan Times, Sep 25, 2021, A recipe for 10-minute melonpan toast)

- (1) 空所 ~ に入る最も適切なものを、次の中からそれぞれ1つ選び、その番号をマークせよ。

- | | | | | |
|---------------------------------|-------------------|----------------|---------|------------|
| <input type="text" value="15"/> | ① Therefore | ② However | ③ While | ④ Whenever |
| <input type="text" value="16"/> | ① which | ② where | ③ who | ④ what |
| <input type="text" value="17"/> | ① unsalted butter | ② sweet cheese | | |
| | ③ daily products | ④ vegan butter | | |

- (2) 下線部 (① ready ② out ③ getting ④ go ⑤ to) を並べかえて英文を完成し、①~⑤の中で1番目にくるものの番号をマークせよ。

- (3) 空所 (ア) と (イ) に入る組み合わせとして最も適切なものを、次の中から1つ選び、その番号をマークせよ。

(ア) — (イ)

- ① Serve — Remove
- ② Give — Take
- ③ Remove — Serve
- ④ Take — Give

- (4) RECIPE の内容に合うものを、次の中から1つ選び、その番号をマークせよ。

- ① オーブントースターがなければ調理できない。
- ② 多用途に使える食用の花を生地に混ぜる方法もある。
- ③ 生地を作るにはボウルに材料を入れ、手でこねるべきである。
- ④ ナイフの背を用いてメロンパンのような割れ目模様をつけるとよい。

IV 次の会話を読み、下記の設問に答えよ。(配点 20)

(A mother and her daughter are talking.)

Mom: Are you doing your homework?

Carla: Yes, it's for my projects class. We are learning about the 17 SDGs.

Mom: Oh my! There are a lot of them. Tell me more about this term.

Carla: First of all, it stands for sustainable development goals.

Mom: Wow. You know some big words. I've heard it a lot in the news, but I don't know much about the details.

Carla: Basically, they're to make the world a better place by achieving these goals by 2030. They're to help people in poor countries, to save the environment, to support the vulnerable in society, to make the world a more equal place and that kind of stuff.

Mom: That's a noble thing to do.

Carla: Yes. And in class, we each have to talk about one of the goals.

Mom: OK. Which one are you doing?

Carla: It's the goal of affordable and clean energy.

Mom: That sounds like an important goal. I'd love to hear your ideas.

Carla: In some countries, people don't have electricity, and so they can't watch TV and kids can't do homework because they don't have lights. In some other countries, people use too much electricity and waste it. The goal is that everyone can have access to electricity and it's not expensive.

Mom: That's a serious problem, isn't it? Perhaps we are lucky. We can do lots of things because we have electricity. Now, how do you think we can solve this problem?

Carla: To be honest, I'm not really sure. I don't really know anything about electricity and types of energy. I'm not much of a scientist, either. I hope some of my classmates will have ideas.

Mom: Of course. It's not an easy problem.

Carla: Anyway, my teacher says that we don't have to solve the problem. It's important just to let people know about the SDGs, and that will put pressure on business and the government to come up with ideas and act.

Mom: OK. I understand that. What does the clean energy part mean?

Carla: We want to make more clean energy and not use energy that makes the earth dirty. Energy like coal and oil is not good. Energy using the sun and wind is clean, so we should use solar panels, and we can build more windmills.

Mom: That is interesting. You certainly know a lot. I'm really impressed. When will

you talk about this in class?

Carla: We have to introduce our goals tomorrow.

Mom: Good luck, then. I'll let you get on with it.

(1) According to the conversation, which of the following sentences has a similar meaning to “it stands for sustainable development goals”? Choose the best answer and mark the number on the answer sheet. 21

- ① Sustainable development goals are often referred to as SDGs.
- ② Carla's project is based on sustainable development goals.
- ③ Carla's mom also thinks there are many sustainable development goals.
- ④ The world is cooperating to try to achieve the sustainable development goals.

(2) Make a sentence which has a similar meaning to “We can do lots of things because we have electricity.” Choose the FIFTH word ²⁾ in the sentence from the following ① to ⑥ and mark the number on the answer sheet. 22

{① do ② enables ③ many ④ to ⑤ us ⑥ Electricity} things.

(3) Which of the following sentences about Mom and Carla is NOT correct according to the conversation? Choose the best answer and mark the number on the answer sheet. 23

- ① Carla is working on a school project.
- ② Carla's school is saving electricity to help people in poor countries.
- ③ Carla's mom is impressed by Carla's knowledge of SDGs.
- ④ Carla's mom has heard about SDGs on the news before.

(4) Which of the following sentences about SDGs is NOT correct according to the conversation? Choose the best answer and mark the number on the answer sheet.

24

- ① They are to be reached by 2030.
- ② The goal of affordable clean energy is one of seventeen SDGs.
- ③ Getting young people to become active is one of the most important SDGs.
- ④ Inequality is a factor in many SDGs.

(5) Which of the following best summarizes the conversation? Choose the best answer and mark the number on the answer sheet.

25

- ① Carla tells her mother about her school project which is about SDGs. Carla has to describe one of the SDGs to her classmates the following day. The problem is that she hasn't yet decided which one to talk about. Her mother suggests she shouldn't worry about it because she can talk impressively about any topic. Making a good presentation can be effective in achieving any goals.
- ② Carla's mother asks her daughter about her project. Carla tells her about the project on SDGs which her class is undertaking. In the previous class, the teacher introduced the class to some of the goals and the students have to prepare a presentation for the next class. Each presentation should outline a different scientific approach to solving the problems surrounding affordable power.
- ③ Carla tells her mother about a topic she is researching for a class project on sustainable development goals. She is hoping to explain her particular goal to her classmates and get their feedback. Even if they can't solve the problem themselves, they may be able to inform people of the situation. If most people are well informed, there is more chance government and business will work to help achieve the goals.
- ④ Carla and her mother discuss how the business community can help achieve the sustainable development goals. They come to the conclusion that Carla and her classmates should try to start a business to produce cheap electricity for poor people. Rather than just talk about goals, it is important for children to work practically to actually help achieve the goal without relying on government support.

V 次の英文を読み、下記の設問に答えよ。(配点 24)

The American agency responsible for issuing copyright protections has rejected a request to register an image created by a machine. The request, to the U.S. Copyright Office, was made by Stephen Thaler, a scientist and developer of neural networks. A neural network is a computer system built to simulate, or act like, the human brain. Thaler built an artificial intelligence (AI) powered system called the “Creativity Machine.” The system produced a colorful, painting-like image with the help of an algorithm processed by a computer. Thaler named the image “A Recent Entrance to Paradise.” He said it was meant to represent the AI system’s visual creation of a simulated near-death experience.

Thaler first sought a copyright registration for the digital image in 2018. That request 26 in 2019. So, he asked the agency to reconsider that decision. In a new ruling last week, the Copyright Office upheld its first rejection. The agency explained the reasoning for its decision in a letter to Thaler’s legal team. In the document, the Copyright Office states that Thaler described the image as being “autonomously created by a computer algorithm running on a machine.” In other words, he believes his AI system created the digital artwork completely on its own, without help from humans. The agency said the request sought to register the computer-produced image “as a work-for-hire to the owner of the Creativity Machine.” (① as ② the machine ③ ¹⁾ the owner ④ himself ⑤ listed ⑥ of ⑦ Thaler).

²⁾ In its latest ruling, the Copyright Office explained that it was once again rejecting the registration request. It said it had taken the action because the image “lacked the required human authorship” required to receive copyright protection. In seeking a reconsideration of his request, Thaler argued that the agency’s human authorship requirement is unconstitutional and not supported by case law. The Copyright Office rejected that argument. It said it had accepted Thaler’s description that the image he sought to register was created without any human involvement. Current rules state that the Copyright Office must refuse a registration “if it determines that a human being did not create the work,” the agency said. The Copyright Office added that Thaler’s request was not effectively supported by current U.S. law or decisions in past copyright-related cases. It noted that the request appeared to be more of “a policy argument in favor of legal protection for works produced solely by artificial intelligence.”

The continued development of AI systems built to assist humans is likely to lead to new debates over whether current laws relating to copyrights and patents should be changed. In 2020, Thaler sought patents for two products he claimed were completely

created by an AI system he calls DABUS. *The U.S. Patent and Trademark Office also rejected those requests, *The Verge* website reported. That agency said it denied the requests because under current patent laws, “a machine does not qualify as an .

Thaler also sought approval for the products with patent agencies in Britain and Europe, but those requests were also denied. However, a judge in Australia ruled last year that inventions created by AI systems can qualify for patent protection, *Engadget* reports. A legal representative for Thaler, Ryan Abbott, said in an online discussion about the issue that he has not argued that AI should own actual patents. Rather, a patent should be held by the owner of the system or machine that did the inventing. However, Abbott said he and Thaler do believe that governments should recognize the machine as the inventor or creator. He said this could prevent “people claiming credit for work they haven’t done.”

注 *The U.S. Patent and Trademark Office 米国特許商標庁

(Source: US Copyright Agency Rejects Registration for AI Created Image by Bryan Lynn, VOA Learning English, Feb 23, 2022. Reproduced with permission of Voice of America.)

(1) 空所 ～ に入る最も適切なものを、次の中からそれぞれ1つ選び、その番号をマークせよ。

- | | | | | |
|---------------------------------|----------------|----------------|---------------|--------------|
| <input type="text" value="26"/> | ① was approved | ② has approved | | |
| | ③ was denied | ④ has denied | | |
| <input type="text" value="27"/> | ① inventor | ② invention | ③ instructive | ④ innovation |
| <input type="text" value="28"/> | ① of | ② in | ③ to | ④ from |

(2) 下線部1) “work-for-hire” の意味として最も適切なものを、次の中から1つ選び、その番号をマークせよ。

- ① Someone who is paid to work for someone else
- ② An activity directed toward the production or accomplishment of something
- ③ A job that a person uses physical or mental effort to do for money
- ④ A creation whose copyright is owned by the employer of the person who produced it

(3) 下線部2) (① as ② the machine ③ the owner ④ himself ⑤ listed ⑥ of ⑦ Thaler) を並べかえて英文を完成し、①～⑦の中で5番目にくるものの番号をマークせよ。

(4) 本文の内容に合うものを、次の中から2つ選び、その番号をマークせよ。ただし、解答の順序は問わない。

- ① Stephen Thaler は、自力で “A Recent Entrance to Paradise” を描き上げた。
- ② The U.S. Copyright Office は、AI に著作権を与えることに合意している。
- ③ Creativity Machine は、国家予算で開発された人工知能システムである。
- ④ “A Recent Entrance to Paradise” は、臨死体験をイメージして描かれている。
- ⑤ DABUS による作品は、アメリカで著作権が認められている。
- ⑥ オーストラリアでは、AI による発明を特許保護の対象としてもよいという判決があった。
- ⑦ Ryan Abbott は、AI による作品に著作権はないと主張している。