

2020年度

T 英語 問題

注意

1. 試験開始の指示があるまでこの問題冊子を開いてはいけません。
2. 解答用紙はすべてHBの黒鉛筆またはHBの黒のシャープペンシルで記入することになっています。HBの黒鉛筆・消しゴムを忘れた人は監督に申し出てください。(万年筆・ボールペン・サインペンなどを使用してはいけません。)
3. この問題冊子は20ページまでとなっています。試験開始後、ただちにページ数を確認してください。なお、問題番号はI～Vとなっています。
4. 解答用紙にはすでに受験番号が記入されていますので、出席票の受験番号が、あなたの受験票の番号であるかどうかを確認し、出席票の氏名欄に氏名のみを記入してください。なお、出席票は切り離さないでください。
5. 解答は解答用紙の指定された解答欄に記入し、その他の部分には何も書いてはいけません。
6. 解答用紙を折り曲げたり、破ったり、傷つけたりしないように注意してください。
7. この問題冊子は持ち帰ってください。

マーク・センス法についての注意

マーク・センス法とは、鉛筆でマークした部分を機械が直接よみとって採点する方法です。

1. マークは、下記の記入例のようにHBの黒鉛筆で枠の中をぬり残さず濃くぬりつぶしてください。
2. 1つのマーク欄には1つしかマークしてはいけません。
3. 訂正する場合は消しゴムでよく消し、消しきずはきれいに取り除いてください。

マーク記入例：

A	1	2	3	4	5
	○	○	●	○	○

(3と解答する場合)

I . 次の文を読み、下記の1～10それぞれに続くものとして、本文の内容ともっともよく合致するものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

We know plastics are as plentiful in parts of the open ocean as they are in our everyday lives. But, until recently, scientists didn't consider that such debris could also be carrying a new wave of invasive species to the shores of the United States. Now they're finding that not only is that happening, but they suspect that some of the species will live and reproduce.

Not long after the 2011 earthquake and tsunami that damaged the east coast of Japan, a huge amount of floating trash—shellfish cages, pieces of docks, entire fishing boats—started washing onto the West Coast of North America and Hawaii. The tsunami had dragged Japan's plastic infrastructure out to sea, where it floated toward North America. Scientists largely expected the debris to land, knowing the pace and direction of ocean currents. But they didn't know that sea creatures from Japan, such as mussels, barnacles, and sea squirts, could survive for six years on a trek across the Pacific Ocean and arrive not only alive, but ready to reproduce.

“Until then, we didn't really think these coastal organisms could survive at sea long enough to make the trip,” says Greg Ruiz, senior scientist at the Smithsonian Environmental Research Center (SERC). “This showed us that they can and do—and that we should expect to see this more often as the amount of debris in the ocean continues to increase.”

Researchers collected as much of the debris as they could over the six-year period during which it continued washing onto West Coast shores. One study documented the creatures that came with the trash and found 289 Japanese species had survived the ride. Christina Simkanin, a research biologist with SERC's marine invasions lab, is now studying the outcome of that incremental invasion to see whether any species might have established new populations where they landed. Many of those species that arrived had not yet been introduced to the West Coast and, like any non-native, could cause harm in their new environments.

A Japanese *algae species, for example, that had already spread to San Francisco and San Diego, landed with the debris in Oregon. A Japanese shore crab, native to several parts of Asia, also rode the tsunami of trash to the West Coast. And

scientists feared a shore mussel originally from the Mediterranean Sea could have carried with it a parasite that is not yet known to the West Coast of the U.S. and Canada.

When researchers ring the alarm bell that a new non-native species has arrived, they usually make an educated guess as to how it got there. Historically, many marine species make the trip in the ballast water, which a ship collects on one coast to give it stability until it reaches the next. Other unwelcome visitors have been introduced by humans looking for a new fish to catch or dumping a tropical creature from their tanks into a lake back home.

But the wave of new species that followed the Japanese tsunami got researchers thinking: How many other invaders have taken the floating-trash train to new waters?

“It’s probably been happening for a while,” says Simkanin. The debris, according to Simkanin, “would have been floating in Japan, gathering this coastal community of species, and then the extreme event sent them out to sea. That likely happens during any storm, and will continue to happen.”

These heaps of coastal trash are a new frontier for the scientists who study invasive species. In the past, coastal creatures have traveled on driftwood that often breaks up at sea. But the spread of plastics along more foreign shores makes possible longer journeys as long as the plastic exists, which can be hundreds of years.

But the large amount of ocean plastics poses new scientific questions. How do these species live on plastic and polystyrene? Do large pieces of debris become microcosms of their coastal ecosystems, like a floating hotel with food? What if their trash raft gets stuck at sea in circular currents like the Great Pacific Garbage Patch?

Linsey Haram, a postdoctoral fellow with the marine invasions lab, is among the scientists trying to find answers during a research tour through the open ocean this year. The work, funded by NASA, is part of a study of the unique ecosystems that may be forming on floating debris.

This fall, she’ll work with The Ocean Cleanup—an audacious project to remove some of the 80,000 metric tons of trash swirling in the Pacific—to study the organisms that might be living there. Researchers expect to find communities of coastal life similar to what washed up on the West Coast. But they also wonder if

some have evolved to survive on a patchwork of man-made structures.

“Our hypothesis is that many of the organisms that are coastal can survive at sea, and that there is reproduction that happens at sea,” says Ruiz, who still wants to know more about what these species are eating while they float. “Up until now, we thought they required coastal areas where there is more food.”

Mussels, clams, and other shellfish have long made their way to new coasts in the ballasts or on the sides of ships, which travel from one shore to another over a few days or weeks. But the idea that those same organisms can survive after a years-long float through the Pacific is still, as Simkanin puts it, “mind blowing.” It also makes it hard to predict where they’ll end up.

* algae : 藻

1. The first paragraph suggests that scientists have recently
 - イ. begun to investigate the problem of ocean trash.
 - ロ. realized the amount of plastic in the ocean.
 - ハ. started to consider the problem of invasive species.
 - ニ. made a discovery about organisms on ocean trash.

2. The floating trash resulting from the 2011 earthquake and tsunami in Japan
 - イ. carried a wide diversity of Japanese marine species.
 - ロ. was the same in content as other kinds of ocean trash.
 - ハ. was not expected by scientists ever to reach land.
 - ニ. took about a year to arrive to the West Coast of North America.

3. Before the 2011 earthquake and tsunami in Japan, scientists believed that sea creatures riding on trash
 - イ. were limited to a few harmless species that are found worldwide.
 - ロ. could not survive the long journey between continents.
 - ハ. were common, especially on plastic trash.
 - ニ. could survive in new habitats once the trash reached land.

4. The underlined word “incremental” (paragraph 4) is closest in meaning to
- イ. artificial.
 - ロ. direct.
 - ハ. gradual.
 - ニ. organized.
5. In her current research, Christina Simkanin is focused on whether Japanese organisms that washed onto West Coast shores
- イ. already exist in North America.
 - ロ. have a special ability to survive on plastic.
 - ハ. have changed since leaving Japan.
 - ニ. will start living there.
6. Simkanin thinks that marine species
- イ. do not cause harm in non-native environments.
 - ロ. were riding on trash long before the 2011 Japanese tsunami.
 - ハ. do not like to live on trash within native coastal waters.
 - ニ. survive more easily in a ship’s ballast than on top of trash.
7. The underlined word “audacious” (paragraph 12) is closest in meaning to
- イ. bold.
 - ロ. possible.
 - ハ. reasonable.
 - ニ. simple.
8. Researchers involved with The Ocean Cleanup are interested in the question of whether organisms riding on trash
- イ. interact with each other and help each other to survive.
 - ロ. are also riding on ships for part of the trek across the ocean.
 - ハ. have developed new traits that help them live on trash.
 - ニ. are in fact not native to coastal areas.

9. The passage suggests all the following ideas EXCEPT that
- イ. the ability of coastal species to survive at sea is not well understood.
 - ロ. coastal species crossed the ocean long before the invention of plastic.
 - ハ. the durability of plastic increases the risk of invasive species.
 - ニ. coastal species are more flexible than animals that live inland.
10. The most appropriate title for this passage is
- イ. Plastic Pollution in the Pacific.
 - ロ. The Survival Instincts of Coastal Organisms.
 - ハ. Travelers on the Ocean Trash.
 - ニ. The Spread of Non-Native Species.

Ⅱ. 次の文を読み、下記の1～10それぞれに続くものとして、本文の内容ともっともよく合致するものを、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

Before the age of photography, portrait painting was a popular means for the rich and famous to memorialize themselves. Well-executed portraits were expected to show the inner essence of the subject, not just a literal likeness. But they took time, usually requiring several sittings. The first president of the United States, George Washington, never liked sitting for portraits, and by the time he retired from the presidency he'd promised never to do it again. He routinely refused requests from artists who wanted to capture his likeness one more time for future generations. But in 1796, he got a request he couldn't refuse: His wife Martha wanted them both to pose for portraits to be hung together in a central place in their home.

The painter Martha had in mind was Gilbert Stuart—a celebrated artist in both Britain and America and the portraitist of choice for hundreds of politicians and famous people. George agreed with her decision; he'd already posed for two other paintings with Stuart and found him relatively easy to sit for. Stuart didn't feel the same way about Washington, however. He thought the ex-president was too stiff, and complained to friends about his stony face, his bad teeth, and the dead look in his eyes. But Stuart still took Mrs. Washington's assignment gladly. A carefree lifestyle and exorbitant spending had put him in debt, and he needed cash. Besides, he'd made quite a bit of money from his first two Washington portraits.

The first of these, known today as the Vaughan portrait, shows Washington from the waist up: Stuart painted him proud and tall and lit from behind. He sold it to a wealthy merchant for a nice sum, but before delivering it, quickly painted and sold at least 15 copies. The second painting—a full-length portrait this time—was so well received that Stuart was able to sell dozens of copies before delivering it to the banker who originally commissioned it. Martha Washington was aware of such duplicities, and, not wanting to spend months waiting while Stuart copied her paintings, made a careful deal: She insisted that Stuart agree to deliver the portraits as soon as they were finished.

The sitting with Washington began much like the previous efforts, and took place in a Philadelphia barn-turned-art-studio in 1796. Stuart was relieved to see

that the president was wearing a new set of false teeth that made his face look more natural. But he was annoyed when, once again, Washington's face turned stony the minute he sat down. Stuart told jokes and stories trying to capture an engaging, interesting look. It didn't work. But then, in the middle of the sitting, Washington's face momentarily lit up with a curious and pleasant expression. Stuart began drilling him to find out what had happened, and discovered that Washington had seen a horse go by outside the window. Stuart began talking about horses—anything and everything he could think of. Then he talked about farming, and anything to do with rural life. Washington's entire expression changed: He became more natural, more lighthearted, and his face became brighter.

The result was the best portrait of the first president ever painted, which shows his true nature, in the words of one contemporary critic, "as a man of simple manners, sincere, reflecting and generous." Stuart himself saw the power and expressiveness in the face he'd painted, and he immediately began trying to figure out a way to keep the painting. If he could just get out of his deal with Mrs. Washington, he could make more than just a dozen hurried copies—he could do hundreds at his leisure and finally get out of debt. But how could he pull it off?

Then he hit on a plan. He stopped a few brushstrokes short of completing the painting, leaving a little canvas showing where Washington's collar should have been. Then he told messenger after messenger from the impatient ex-first lady, "Sorry, it's not finished yet."

Even a visit from the former president couldn't shake the painting loose. Instead Stuart sent along one of his copies of the original. Mrs. Washington hung it up, but told her friends, "It's not a good likeness at all."

In fact, not many of the copies were. Stuart was interested in speed, not quality. According to one of his daughters, on a "good day" he could produce a copy every two hours. Many had little or no resemblance to Washington at all. An acquaintance of Stuart's wrote, "Mr. Stuart told me one day when we were before this original portrait that he could never make a copy of it to satisfy himself, and that at last, having made so many, he worked mechanically and with little interest."

Regardless, the portrait became a wildly popular commodity and Stuart dashed off more than 200 copies, calling them his "hundred dollar bills." Stuart took

advantage of a market hungry for images of the country's beloved leader and eager for works by the now-celebrated painter. But he still couldn't completely rid himself of debt. Ironically, in the end there were so many inferior copies of the Unfinished Portrait (by other artists as well) that they actually did significant damage to Stuart's reputation. When he died in 1828, he still owed considerable money, and his younger daughter, Jane—also a portrait painter—had become the breadwinner for the family.

And what became of the original paintings? They were never completely finished, and were never delivered to the Washington family. The Boston Athenaeum ended up owning them, and today they're shared part of the year with the Boston Museum of Fine Arts and the National Portrait Gallery of Washington. But even without actually seeing the original, we're all familiar with it: An engraving of Washington's portrait as it appears in Stuart's painting has been used for the one-dollar bill since the early 1900s. Washington's face, as Stuart put it to canvas, is a work of art that passes between people every day.

1. The first paragraph suggests that George Washington
 - イ. cared a great deal about his place in history.
 - ロ. never sat for portraits during his presidency.
 - ハ. respected his wife, Martha.
 - ニ. had lots of patience.

2. According to the passage, Gilbert Stuart
 - イ. did not accept Martha Washington's request in the beginning.
 - ロ. thought George Washington was a difficult subject to paint.
 - ハ. had never painted an American president before.
 - ニ. preferred to paint ordinary people rather than politicians.

3. The underlined word "exorbitant" (paragraph 2) is closest in meaning to
 - イ. cautious.
 - ロ. explicit.
 - ハ. huge.
 - ニ. unknown.

4. The underlined word “duplicities” (paragraph 3) is closest in meaning to
- イ. bargains.
 - ロ. conditions.
 - ハ. plans.
 - ニ. tricks.
5. During the portrait sitting in Philadelphia in 1796,
- イ. Stuart found a way to make Washington relax.
 - ロ. Washington’s expression remained the same.
 - ハ. Stuart had trouble concentrating on his work.
 - ニ. Washington discovered a new interest in rural life.
6. All of the following are true about Stuart’s 1796 portrait of Washington EXCEPT that it
- イ. was appreciated by contemporary critics.
 - ロ. made Washington look firm and proud.
 - ハ. was left unfinished by Stuart.
 - ニ. captured Washington’s personality.
7. The underlined phrase “not many of the copies were” (paragraph 8) means that not many of the copies
- イ. looked like Martha Washington.
 - ロ. were painted quickly.
 - ハ. looked like George Washington.
 - ニ. were seen by Martha Washington.
8. The passage suggests that Gilbert Stuart
- イ. hasn’t received enough credit for his contribution to the dollar bill.
 - ロ. was never satisfied with any of his portraits of George Washington.
 - ハ. did not know how to make his portrait subjects feel at ease.
 - ニ. was quite famous as a painter during his lifetime.

9. One theme of the passage is that

- イ. artists who are motivated by money do not paint well.
- ロ. great works of art often go unappreciated for a long time.
- ハ. it is difficult to capture a person's essence in a painting.
- ニ. in the age of photography, portrait painting is a lost art.

10. The most appropriate title for this passage is

- イ. The Unfinished Portrait of George Washington.
- ロ. Gilbert Stuart: Portraitist of Presidents.
- ハ. Portrait Painting Before the Age of Photography.
- ニ. George Washington: The Man Behind the Myth.

Ⅲ. 次の文1～10は、いずれもある単語が欠けているため、文法的に正しい文章になっていない。それぞれの文を正しい文章とするために補うのもっとも適切な1語を、各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

1. We will have to watch out possible problems once we start the project.

イ. at ロ. for ハ. in ニ. upon

2. Mistakes involving verbs, tenses, articles, and prepositional phrases all come the heading of grammatical errors.

イ. about ロ. across ハ. in ニ. under

3. The dog quickly tracked the cat where it was hiding under the garden shed.

イ. in ロ. on ハ. to ニ. up

4. They decided to call off the event, they had sold only 15 tickets.

イ. as ロ. despite ハ. whereas ニ. yet

5. The show was fully booked for weeks. On its first day, people poured in and soon the theatre packed.

イ. been ロ. had ハ. is ニ. was

6. Military history is filled with examples of armies being destroyed because generals or politicians silly mistakes.

イ. failed ロ. kept ハ. made ニ. took

7. Joe says taking an extra long bath helps him to relax a hard day at work.

イ. across ロ. after ハ. on ニ. that

8. In early May I broke up with my girlfriend and it took me a while to over her.

イ. get ロ. go ハ. lose ニ. start

9. We moved to the countryside from Tokyo and now we feel like we completely cut off from the modern world.

イ. are ロ. as ハ. have ニ. since

10. The old wooden clock in my grandfather's house looks like something has survived from a different time.

イ. that ロ. then ハ. what ニ. where

IV. 次の空所(1)～(6)を補うのもっとも適当なものを、それぞれ対応する各イ～ニから1つずつ選び、その記号を解答用紙の所定欄にマークせよ。

A. Generation gap

Burt: Look at those kids over there. Instead of enjoying their time together they have their eyes glued to their phones.

Ernie: But they're obviously enjoying themselves. Can't you see them talking to each other and smiling?

Burt: (1). They aren't expressing any feelings. They're just swiping pictures and laughing about online videos.

Ernie: What's wrong with that? That's how they communicate.

Burt: But, why don't they look at each other when they talk? Where is the eye contact?

Ernie: (2) They're just not staring at each other like your generation does.

Burt: How do you know about my generation? What do you mean?

Ernie: I see your generation in the movies all the time. You guys are always just staring at each other, as if looking away might make the other person actually disappear.

Burt: Ha, ha... very funny. That's just in the movies, (3). We look at each other to see the other person's thoughts and emotions in their eyes.

Ernie: Alright, but my generation is no different. We have thoughtful conversations, but we express ourselves in another way.

- (1) イ. There's nothing wrong with it
ロ. You have to speak clearly
ハ. I can't hear what they're saying
ニ. That's not a real conversation

- (2) イ. Here you are.
ロ. Isn't that it?
ハ. It's there.
ニ. That's it, okay?

- (3) ㄱ. not in reality
 ㄴ. you should believe it
 ㄷ. it's the truth
 ㄹ. and I've never seen it

B. Making a difficult choice

Son: Mom, can I talk to you?

Mom: (4)

Son: There's a study program this summer and my academic advisor says I should do it.

Mom: Okay. What's the program?

Son: That's just it. Last year's program was great. But this one sounds boring and is not related to what I want to do in the future.

Mom: And?

Son: And... this summer my friends are planning a big camping trip that's going to happen at the same time.

Mom: I see. So, you want my advice?

Son: Kind of, yeah. You always seem to know what to do.

Mom: I wonder why (5).

Son: Probably because she thinks it'll be a valuable experience for me, but I disagree.

Mom: It sounds to me like (6). You decide.

Son: Yeah, you're right. I'll go camping with my friends.

- (4) ㄱ. What did you say?
 ㄴ. How will that help?
 ㄷ. Sure.
 ㄹ. Do you know?

- (5) イ. you're asking me this and not your advisor
ロ. your advisor is recommending such a program
ハ. you haven't already done a study program
ニ. your friends can't change the camping trip date

- (6) イ. you're going on a camping trip
ロ. you don't like to do programs
ハ. you've already made up your mind
ニ. you don't really agree with her

V. 次の空所(1)～(6)それぞれにもっとも適当な1語を補い、英文を完成せよ。解答は解答用紙の所定欄にしるせ。

Through the ages, the sudden darkening of the sun has been seen (1) a signal of the displeasure of the gods or a signal of bad things to come. But once astronomers figured (2) how *solar eclipses worked, they became events to be studied and celebrated.

Solar eclipses happen only during a new moon, when the moon moves (3) the earth and the sun. However, (4) the moon orbits the earth at a slight angle, the three bodies will only periodically line up on the same plane to create a solar eclipse.

During a total solar eclipse, the moon is in just the right position to briefly cast a shadow on our planet. As the moon moves and the earth spins, this shadow races across the planet's surface at some 1,400 miles an (5), creating a relatively narrow line called the path of totality. Only sky watchers within this line—typically 10,000 miles long and just 100 miles wide—experience a total solar eclipse. People near it see only a partial solar eclipse, in which part of the sun is blotted out, while those farther away see no change at (6).

*solar eclipses : 日食

【以下余白】

