H—30 Ⓐ

英　　語

12：30～14：00

解　答　上　の　注　意

1. 試験開始の合図があるまで，この問題紙を開いてはならない。
2. 問題紙は 15 ページある。
3. 解答用紙は | 解答用紙番号 / 英語 0—1 | と | 解答用紙番号 / 英語 0—2 | の 2 枚である。
4. 解答用紙は 2 枚とも必ず提出せよ。
5. 受験番号および座席番号(上下 2 箇所)は，監督者の指示に従って，すべての解答用紙の指定された箇所に必ず記入せよ。
6. 解答はすべて解答用紙の指定された欄に記入せよ。
7. 必要以外のことを解答用紙に書いてはならない。
8. 問題紙の余白は下書きに使用してもさしつかえない。

1 次の英文を読んで，設問に答えなさい。

Once in a while a special person comes along whose work transforms the lives of many. One such person was the computer engineer, Grace Hopper. Hopper began her work with computers in the 1950s. These were the earliest years of the computer age. At this time typical computers could only be used by highly-trained people since the instructions for these machines had to be written in the form of difficult mathematics. Hopper wondered if it would be possible to write a computer program using English words instead of complex symbols. If so, the computer would become much easier to use. As a result, she worked (1) to create one of the first computer languages. This allowed computers to be easily used by many more people and was one development leading to the widespread adoption of computers beyond the scientific community.

Grace Hopper's interest in machines such as computers began at an early age. Even as a young child, she was curious about how things worked. For example, one day her mother found that young Grace was trying to take apart all of the clocks in their home. The problem, of course, was that Grace was not able to put them back together again! Recognizing the child's talent, her mother did not get angry, but offered her daughter a (ア) (2): She could have *one* of the family clocks for her experiments. Evidently, her mother's support paid off because later Grace Hopper became an excellent student in science and mathematics. She eventually earned a Ph.D., the most advanced degree, in mathematics from Yale University, one of the top universities in the world.

Besides making computers easier to use, Hopper fostered change in people's lives in another way. Until that time, computer science — and, indeed, all engineering — was almost exclusively a profession of men. Although hard to believe now, this was a time when gender roles were so narrowly defined to the point that science or engineering textbooks showed only pictures of men on their covers. As one of the first women in the field, her achievements set the

stage for many other women who came after. Hopper had a similar impact on the military. Later in her career, she enlisted in the United States Navy where her work with computers led to her eventual promotion to the position of rear admiral, a very high rank. Indeed, Hopper was one of only three women to attain such a high position in the Navy at that time. (3) The respect that she earned in the Navy was so great that one of its ships now bears her name. Its motto is "dare and do" because this is a phrase that Hopper herself used often. Clearly, then, both in the field of engineering as well as in the military, this amazing woman was truly a pioneer for equal rights.

Despite such achievements, Hopper retained a down-to-earth aspect to her personality. She especially understood the importance of basic scientific literacy in modern society. While others might have been content working in a laboratory, she strove to popularize science and engineering for the public. She especially had a talent for explaining complex scientific concepts in simple terms. (4) This ability to explain things combined with her humorous personality made her a popular lecturer as well as an entertaining and enlightening guest in television interviews. She once joked that in order to explain technology to typical Navy leaders, she *had* to be able to employ simple methods. Although she was a high-ranking Navy officer with a doctor's degree in mathematics from one of the premier institutions in the world, Hopper still had the ability and the desire to explain her work to non-specialists.

We owe a lot to Grace Hopper. She explained that she hated when people would say "We've always done it this way" to justify their actions. For her, such thinking was something to fight. As a result of this philosophy, she was responsible for a lot of significant changes. Most importantly, computers — and devices with computers inside them like smartphones — are easier to use and are widely available. If Hopper had never lived, who knows what our world would be like. Maybe a smartphone could be used only by a mathematician, and only by a male (5) one at that!

問 1　下線部(1)の意味を，so が表す内容を具体的に明らかにして，日本語で述べなさい。

問 2　下線部(2)で，空欄（　ア　）に入るもっとも適切な語を，(A)～(D)から 1 つ選び，記号で答えなさい。

(A) compromise　　(B) lesson

(C) punishment　　(D) task

問 3　下線部(3)を，意味を変えずに次のように書き換えた時に，空欄（　イ　），（　ウ　）に入るもっとも適切な語句を，(A)～(D)からそれぞれ 1 つ選び，記号で答えなさい。

You can see（　イ　）respect she earned in the Navy（　ウ　）one of its ships now bears her name.

(イ) (A) how　　(B) the fact that

(C) the degree of　　(D) why

(ウ) (A) from the fact that　　(B) reflected the fact that

(C) resulted from the fact that　　(D) was shown that

問 4　下線部(4)を日本語に訳しなさい。

問 5　下線部(5)の代名詞が指す語を，同じ段落から 1 語で抜き出し，英語で答えなさい。

問 6　本文の内容と一致するものを，(A)～(F)から 2 つ選び，記号で答えなさい。

(A) Her study of philosophy enabled Hopper to bring about technological innovations.

(B) Hopper often found it unprofessional to simplify the complexities of science for ordinary people to understand.

(C) Hopper seldom left her laboratory.

(D) Hopper was the kind of person who would generally follow what others were doing.

(E) Hopper's interest in complex devices was already seen in her childhood.

(F) Only a very small number of women could hope to pursue a career in engineering in Hopper's time.

2 次の英文を読んで，設問に答えなさい。

When you think of intelligence, famous scientists such as Albert Einstein or Marie Curie may come to mind. Maybe you consider innovators such as Thomas Edison to be highly intelligent. Or perhaps you feel that famous scholars such as the ancient Greek philosopher Socrates or his Chinese counterpart Confucius represent models of intelligence. Certainly, such individuals are considered intelligent by many because of their talent to solve difficult problems in science, engineering, and philosophy. But (1) is high-level ability in such areas all there is to intelligence? A specialist in educational psychology named Howard Gardner thinks not.

In the 1980s, Gardner proposed the notion of *multiple intelligences*. Now widely accepted, this theory suggests that there are actually seven distinct types of intelligence. For each of us, one of these represents the primary way that we figure out our world. Gardner and proponents of multiple intelligence theory argue that the fact that we often think of those being intelligent as using math, science, or philosophy to understand reality is simply because those types of thinking have been valued in traditional education. In the "real world," however, Gardner's intelligences are what people actually use on a daily basis.

The multiple intelligences proposed by Gardner are Visual-Spatial Intelligence, Bodily-Kinesthetic Intelligence, Musical Intelligence, Interpersonal Intelligence, Intrapersonal Intelligence, Linguistic Intelligence, and Logical-Mathematical Intelligence. People figure out their world in different ways depending upon which of these forms of intelligence is strongest for them.

Those for whom Visual-Spatial Intelligence is dominant prefer to use their sense of sight. They might tackle a complex problem by creating a diagram or a table. A person with high Bodily-Kinesthetic Intelligence is good at movement. They might study by writing vocabulary words or mathematical formulas to be memorized again and again. (ア) People with Musical

Intelligence are not simply good at singing, playing an instrument, or composing songs, but they might memorize new English vocabulary by repeating the words out loud and by focusing on the rhythm of the language.

The next two types are described by the difference between the prefixes "inter" and "intra." The first means "between two or more things" while the second means "within a thing." In the case of multiple intelligences, those with a high *Inter*personal Intelligence have a skill in relationships *between* themselves and others. They might talk with family members, friends, or mentors in solving problems. On the other hand, people with a high *Intra*personal Intelligence draw upon their own feelings and insights. These are qualities *within* themselves. They tend to solve problems on their own. Faced with an important question, they might find a quiet place to think carefully about the answer. (イ)

Linguistic Intelligence implies a strong preference for language in figuring things out. (ウ) People with high Linguistic Intelligence may keep a diary to help them determine what to do. Finally, Logical-Mathematical Intelligence implies a reliance upon numbers and step-by-step procedures to take on problems. Such a person might carefully weigh alternative outcomes (2) in thinking about a solution to an issue.

It is important to stress that this theory does not simply contend that people have a variety of talents, but that these seven truly represent intelligence, or ways of understanding the world. The influence of Gardner's theory has been most felt in education. Teachers are encouraged to create activities allowing individuals to succeed in school no matter which of these intelligences is dominant for them. Of course, education should not simply be about matching class activities to the strengths of students, but also should be about presenting students with opportunities to develop themselves. Because of this, teachers often try to help students to develop those intelligences that (3) they are weaker in.

問 1　下線部(1)を日本語に訳しなさい。

問 2　本文中の空欄(　ア　)，(　イ　)，(　ウ　)に当てはまるもっとも適切な文を，(A)～(C)からそれぞれ１つ選び，記号で答えなさい。

(A) For them, the physical act of writing is a great help.

(B) These people may talk to themselves, working through a problem verbally.

(C) These sorts of people often prefer to study alone.

問 3　下線部(2)にもっとも近い意味を持つ語句を，(A)～(D)から１つ選び，記号で答えなさい。

(A) avoid illogical arguments

(B) choose and emphasize the best answer

(C) consider different possibilities

(D) produce an indisputable method

問 4　下線部(3)を日本語に訳しなさい。

問 5　この文章のタイトルとしてもっともふさわしいものを，(A)～(D)から１つ選び，記号で答えなさい。

(A) Another way of looking at intelligence

(B) How to make yourself more intelligent

(C) Howard Gardner, educational pioneer

(D) The value of educational psychology

問 6　本文の内容と<u>一致しないもの</u>を，(A)~(F)から 2 つ選び，記号で答えなさい。

(A) Although the Interpersonal and Intrapersonal Intelligences sound similar to each other, they are distinct categories.

(B) Einstein and others mentioned as examples of famous intelligent people are so special that they do not fit in any of Gardner's categories of intelligence.

(C) Gardner's theory opened the way to appropriately evaluate those types of intelligence that had long been undervalued.

(D) Interpersonal Intelligence is the most important one for athletes.

(E) Musical Intelligence is not limited to musicians.

(F) People with different intelligences may choose different ways to tackle the same task.

3 Read the following passage.

Last summer, I took my niece to our local zoo. She really enjoyed looking at all the strange animals that she had never seen before. She saw zebras, lions, alligators, chimps, and a giraffe. I was also impressed by the way the zoo was managed. When I was little, the animals were kept in concrete enclosures and cages. However, my local zoo now clearly tries to make the animals feel more at home. Many enclosures now have grassy areas, water features, and more space. They are also designed to reproduce the natural habitats of the animals that live within them. I spoke to one of the people who look after the animals. She told me that nowadays zoos have to follow strict rules when they want to get new animals. They either have to get them from other zoos or from special programmes that raise endangered species. She was very knowledgeable about the animals and cared a lot about them.

However, when I told my friend, Jack, about my visit and zoos' recent efforts, he got really angry. He said that zoos make it impossible for some animals to follow their instincts, such as hunt and travel long distances. For example, he claimed that elephants are used to living in large groups and walking many miles a day, but they can't do that in zoos. Also, he said that lions in the wild hunt at night after hiding in bushes for a long time, but they can't do that in zoos. Jack remained unimpressed when I told him that the zoo was involved in trying to conserve animals. He pointed out the frequent failure of zoo conservation projects, noting the low survival rate of animals raised in zoos when they are reintroduced into the wild.

When I said that my niece enjoyed seeing a wide variety of animals, he responded that she can do that on television; these days, he said, there are very high-quality nature programmes with information about important aspects of animals' lives and behaviours that cannot be observed in zoos. Jack also claimed that most people only spend a short amount of time actually looking at

the creatures on display and don't learn very much.

After speaking to Jack, I began to wonder if I should have taken my niece to the zoo. Are zoos designed to benefit animals or people?

Answer questions A to C **in English**. You may use words and ideas from the text, but you **must not** copy complete sentences.

Question A

Complete the following sentence describing the author's impression of the zoo.

Instead of _____ as in the author's childhood, the zoo now tries to make animals feel more comfortable.

Question B

The two main reasons in paragraph 2 that Jack gives for being unsympathetic to zoos' efforts are:

First, _____

_____. Second, _____

_____.

Question C

Jack suggests that zoos could be replaced by television shows. In 70—100 words, argue **against** the view that TV shows could substitute for zoos. Provide at least two reasons to support your argument.

4 Read the following transcript [I] of a conversation between friends, Matt and Tomoko. Then, read the summary of the transcript [II]. The summary contains 12 blanks. For each blank, choose the most appropriate option from the list. Each option can be used only once. On your answer sheet, write the letter (A, B, C, etc.) that corresponds to your choice.

[I]

Matt: Hi, Tomoko. Why're you wearing a surgical mask? Is it for the Halloween party tonight? Psycho surgeon, or something?

Tomoko: Hi, Matt. I've just come back from Japan. A lot of people wear them when they get sick. I'm wearing it to try and stop picking up bugs.

Matt: Do they actually work?

Tomoko: Well, a friend told me that they're good at stopping people from making others sick because they block most of the viruses in your breath, or when you cough or sneeze. As for protecting the wearer from getting sick, they're obviously not perfect because viruses can still get in round the side of the mask, but I think they're better than nothing. And they keep your throat warm, which probably makes it harder for viruses to live if they do get in.

Matt: That may be so, but covering your mouth seems a bit uncomfortable to me. I just try to avoid people who're coughing and sneezing. We don't wear them in the UK. You know, in England we have a phrase 'starve a fever and feed a cold'. My grandmother used to say that.

Tomoko: What does it mean?

Matt: Well, the idea is that if you have a fever, you shouldn't eat. That way you'll kill off the flu virus. If you have a cold, you should have hot soups and hot drinks to fight off the infection. But

actually the proverb might not be true. Some think if you're sick, you should eat, whether it's a cold or the flu. Your body needs nutrients to kill off the bugs. Having said that, we do try to bring the fever down, rather than try to burn it out. Letting the fever run puts a strain on the body.

Tomoko: That's interesting. In Japan, we traditionally thought that you should let the fever run, but these days some doctors try to bring the fever down. But drinking hot ginger is still a popular remedy.

Matt: Really? In the UK, we don't drink hot ginger drinks, but we do drink honey and lemon. We think the lemon provides vitamin C to fight the cold, and the honey helps soothe the throat. Also, chicken soup has long been said to be a good food for people with colds because it's a source of protein.

Tomoko: Chicken soup, eh? You like meat in the UK, don't you? In Japan, we tend to give sick people a kind of savoury rice pudding. It's nutritious and easy to digest.

Matt: Of course, neither of us are experts, and I suppose different cultures have different approaches. Talking about different cultures, do you have Halloween in Japan?

Tomoko: Not until recently. Young people dress up and wander around, but it's more of a recent craze in Japan. It's popular in the UK, though, right?

Matt: Well, it's not as big as in the US. It's more for kids over here. Anyway, Sam's having a party tonight. Are you coming?

Tomoko: Well, I wasn't going to because I don't have a costume. But after speaking to you, I think I can just go as I am!

[II]

Matt is talking to Tomoko. She has just returned to the UK from Japan. Matt is (1) by her mask. She tells him that in Japan people often put on masks. Matt asks Tomoko if the masks are (2). She tells him that they are said to be good at stopping sick people from spreading colds and the flu but are not a (3) against becoming ill. Matt thinks that they look a bit hard to breathe in, and he just tries to (4) from people who are not well.

He mentions that there is a traditional saying that recommends (5) if you have a fever and eating if you have a cold. He then warns that some think this folk wisdom is inaccurate because sick people need the (6) found in food to fight back against the illness. However, he also says that in the UK people do recommend (7) a high temperature. Tomoko notes that in Japan people used to (8) letting fevers break by themselves, but she says that way of thinking is controversial now.

They then compare the food and drink that people have when they are sick. People in Japan drink hot ginger and eat a rice dish, (9) people in the UK tend to drink hot honey and lemon, and have chicken soup. Matt concludes that their perspectives stem from (10) differences.

They finish the conversation by talking about Halloween. Tomoko tells Matt that it is a relatively recent trend in Japan and (11) on dressing up. Matt brings up Sam's party and Tomoko decides to go because her mask can (12) as a costume.

(A) advocate	(B) centred	(C) cultural
(D) declining	(E) drinking	(F) effective
(G) efficient	(H) fasting	(J) goodness
(K) guarantee	(L) influenced	(M) irritated
(N) lowering	(O) personal	(P) prohibit
(Q) promise	(R) put on	(S) refute
(T) serve	(U) stay away	(W) surprised
(X) unlike	(Y) wellness	(Z) whereas