

受検番号	第	番
------	---	---

令和 6 年度学力検査問題

英語〔学校選択問題〕 (14時40分～15時30分)
(50分間)

注 意

1 解答用紙について

- (1) 解答用紙は1枚で、問題用紙にはさんであります。
- (2) 係の先生の指示に従って、所定の欄2か所に受検番号を書きなさい。
- (3) 答えはすべて解答用紙のきめられたところに、はっきりと書きなさい。
- (4) 解答用紙は切りはなしてはいけません。
- (5) 解答用紙の*印は集計のためのもので、解答には関係ありません。

2 問題用紙について

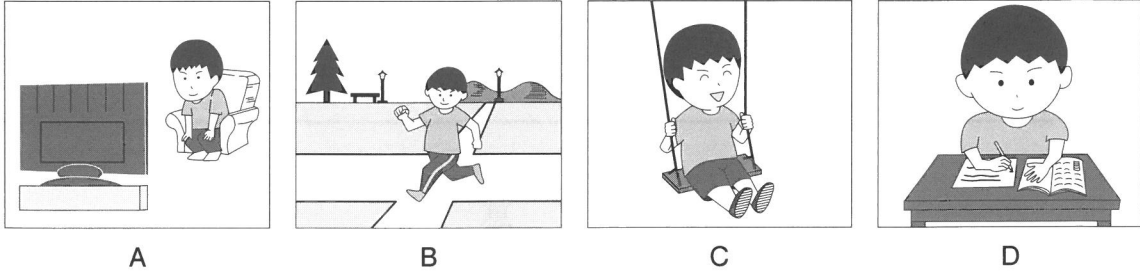
- (1) 表紙の所定の欄に受検番号を書きなさい。
 - (2) 問題は全部で4問あり、表紙を除いて9ページです。
- 最初に「放送を聞いて答える問題」を行います。
 - 印刷のはっきりしないところは、手をあげて係の先生に聞きなさい。

1 放送を聞いて答える問題(28点)

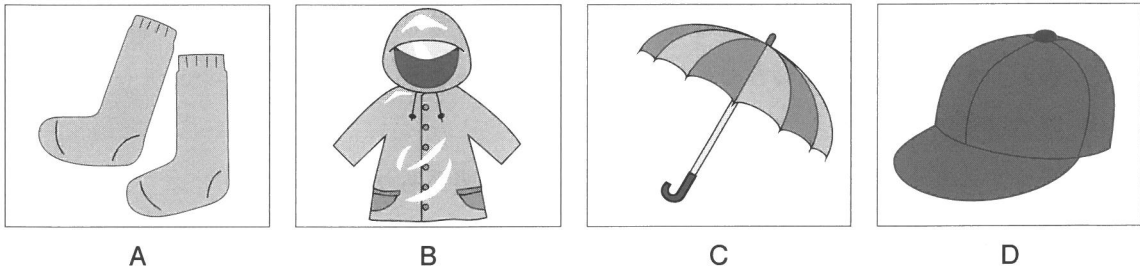
問題は、No. 1～No. 7の全部で7題あり、放送はすべて英語で行われます。放送される内容についての質問にそれぞれ答えなさい。No. 1～No. 6は、質問に対する答えとして最も適切なものを、A～Dの中から一つずつ選び、その記号を書きなさい。No. 7は、それぞれの質問に英語で答えなさい。放送中メモを取ってもかまいません。各問題について英語は2回ずつ放送されます。

【No.1～No.3】(各2点)

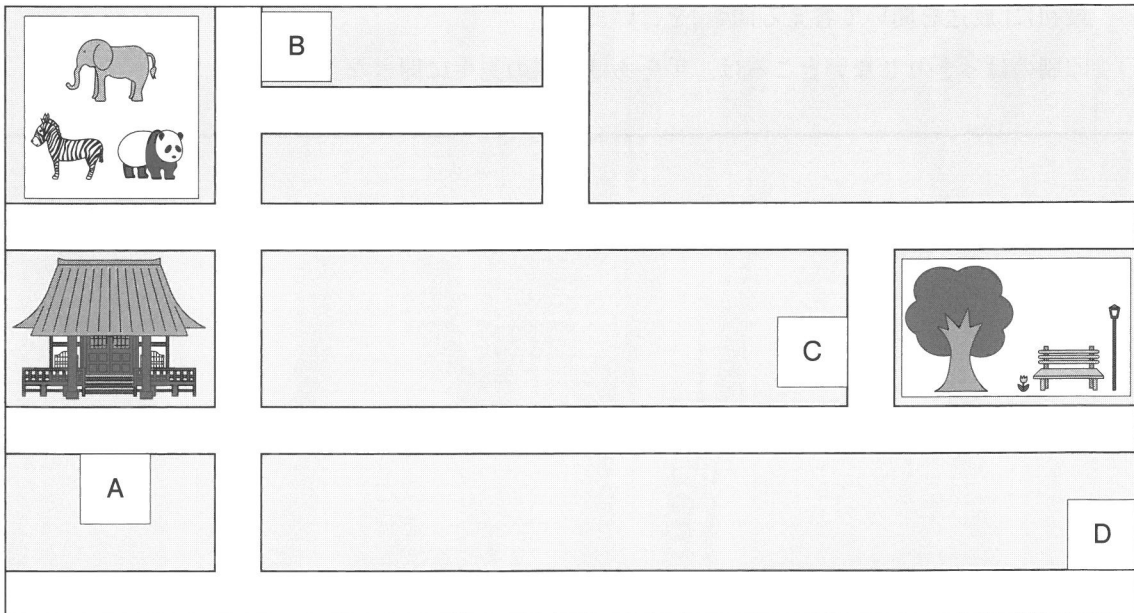
No.1



No.2



No.3



2 <The next day, the students are talking about the pictograms for the 1964 Tokyo Olympics.>

Kento : Let me tell you about the 1964 Tokyo Olympics. Tokyo is the first city that used pictograms for the Olympics.

Mandy : Why were pictograms used in the 1964 Tokyo Olympics?

Kento : In the 1964 Tokyo Olympics, Japanese people needed to communicate with visitors from all over the world, but it was difficult to support visitors in their languages. So, Tokyo () of another way to communicate with everyone. That was the pictogram.

Jiro : I think many visitors from other countries could not understand Japanese.

Kento : Right. For that reason, Tokyo decided to tell people important information through pictograms.

Mandy : I see. Then, do you know who created the pictograms for the 1964 Tokyo Olympics?

Kento : Yes, a group of designers started creating the pictograms. Katsumi Masaru, an *art critic, was one of them. The designers worked in small groups. One team was *working on sports pictograms. Another was working on pictograms for public places. Each group worked hard *based on Mr. Katsumi's idea. He thought the pictograms would *play an important role in big events such as the Olympics.

[注] art critic 美術評論家

work on ~ ~に取り組む

based on ~ ~に基づいて

play an important role 重要な役割を果たす

問 2 下線部が「それで、東京は全ての人と意思疎通をするための別の方法について考えなければなりません。」という意味になるように、()に適切な3語の英語を書きなさい。

(4点)

3 〈The students continue talking.〉

Jiro : What were the pictograms for public places like?

Kento : Here is an example. Have you ever seen this?

Mandy : Yes, it means a restaurant.

Kento : That's right. This was used in Haneda Airport in 1964. Haneda Airport was an entrance to Japan for visitors from other countries at that time. Before that, there were *notices on the wall, but because most of them were written in Japanese, it was hard for many foreign visitors to understand what the notices *said. So, pictograms were [to / for / making / useful / easier for / the information / foreign visitors] understand.

Jiro : We often see such pictograms at the airports in Japan now.

Kento : There were pictograms in public places before 1964. But each country had different pictograms. Mr. Katsumi and other designers tried to make simpler pictograms that everyone in the world could understand when they started getting ready for the 1964 Tokyo Olympics. Simple pictograms created by Japanese designers many years ago are still used around the world.

〔注〕 notice 掲示

say ~ ~と書いてある

問 3 []内のすべての語句を, 本文の流れに合うように, 正しい順序に並べかえて書きなさい。
(4点)

4 〈Kento shows another pictogram.〉

Kento : Now, many kinds of pictograms are used in public places. Have you seen this pictogram?

Mandy : Yes, I have seen it in school. It shows a door that is used to leave the building when there is a fire or an earthquake.

Kento : That's right. It was created by Japanese designers and became an *international standard in 1987. There is another example. Have you seen a *magnifying glass icon on websites?

Jiro : Of course. It means "search."

Kento : Right. It is often difficult to read the *text because of too much information in a limited space on websites. That's why pictograms are used on websites instead of text.

Mandy : One more example. Look, here is a small gift my friend in Australia gave me. You see it on the roads.

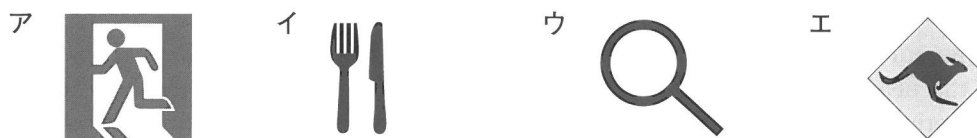
Jiro : Oh, it means "Be careful of kangaroos." That's easy. I would like to share it with our classmates. Why don't we talk about the history of pictograms and those found in other countries for the presentation?

Mandy : That's a good idea. In our presentation, I would like to tell everyone that there are many pictograms around us. Let's make the *slides and write a *script.

〔注〕 international standard 国際基準
text テキスト(文字だけのデータ)
script 台本

magnifying glass icon 虫眼鏡のアイコン
slide スライド

問 4 下線部 this pictogram のさすものとして最も適切なものを、次のア～エの中から一つ選び、その記号を書きなさい。(3点)



問 5 本文 [4] の内容に関する次の質問に、英語で答えなさい。(4点)

Why is it often difficult to read the text on websites?

問 6 本文 [1] ~ [4] の内容と合うように、次の(1), (2)の英語に続く最も適切なものを、ア～エの中から一つずつ選び、その記号を書きなさい。(各3点)

(1) In the students' discussion,

- ア Mandy showed the pictogram which means "restaurant."
- イ Kento said that foreign languages helped people find the information they need.
- ウ Jiro said that pictograms with different designs are made for each Olympics.
- エ they learned that Japanese designers tried to become an international standard for pictograms.

(2) According to the discussion, Kento explained

- ア pictograms for the Paris Olympics were created based on those for the 2020 Tokyo Olympics.
- イ pictograms created by Japanese designers spread around the world after the 1964 Tokyo Olympics.
- ウ pictograms were created in 1964 for Japanese people who didn't use English.
- エ pictograms were created to increase the number of words on websites.

問 7 次は、後日の Kento と Mandy の会話です。自然な会話になるように、() に適切な 3 語以上の英語を書きなさい。(4点)

Kento : The slides you made were very good. The pictogram quiz was also interesting.

Mandy : Thank you. I hope that our classmates will enjoy it. Is there () do for our presentation?

Kento : Well, I'm writing a script. So, can you check my English?

Mandy : Sure. I'm happy to help.

- 3 次は、高校1年生のNanaが artificial hibernation (人工冬眠)について調べ、書いた英文です。これを読んで、問1～問6に答えなさい。*印のついている語句には、本文のあとに〔注〕があります。(34点)

I read some surprising news last week. According to that news, humans will be able to *hibernate in the near future. It said that some researchers have been studying how to *apply artificial hibernation to humans. It also said that by doing more research on hibernation, we may be able to use it in space or in the *medical field. However, not many animals hibernate, and there are still many things that we don't know. What is hibernation? How can it be applied to humans? I read some books and articles to answer these questions.

First of all, animals that hibernate are some *poikilotherms and some *mammals, such as bears. Poikilotherms, such as frogs or turtles, hibernate during winter because the outside temperature and their body temperatures are almost the same, so they cannot be active. Mammals, on the other hand, are able to keep almost the same body temperature by producing *heat inside their bodies. Hibernation of mammals is a *mysterious phenomenon. The body temperature drops, and the body stops the *metabolism that produces heat. Then, the body saves energy. Some mammals hibernate, but others do not. Some researchers believe that all mammals had the *ability to hibernate, but maybe they have lost this ability because of the environment they live in. Maybe some mammals learned to survive winter without hibernating.

In 2020, the world was surprised by a study from a Japanese research team. It said that the team put *mice into a condition very similar to hibernation, though mice do not hibernate. The team *stimulated a part of the mouse brain the “*Q neuron.” After the Q neurons were stimulated, the mice’s *oxygen consumption *decreased and their body temperature dropped, and this hibernation condition continued for more than a day. After that, the mice *spontaneously returned to their original condition without any serious damage. This may be the way to apply artificial hibernation to humans.

Another research team has found a different hibernation *switch. That is “smell.” When mice smell a *certain odor, This condition is similar to hibernation. The team also found that the hibernation switch *elicits the ability to survive in a difficult situation, such as in a low-oxygen environment. One of the team members who discovered this hibernation switch says, “For example, we can give a certain odor that elicits hibernation to a person in a serious condition. By doing so, we can use artificial hibernation to help someone in a serious situation survive. As a result, we may be able to save more .”

If artificial hibernation becomes possible, what situations will it be used in? Sunagawa Genshiro, one of the members of the Q neuron research team, says, “We would like to start with hibernation for short periods of time and then increase the hibernation time. We will start with hibernation of only part of the body, and we would like to continue hibernation for a few hours or a few days. This can be used for medical care. We are also thinking about ‘*voluntary hibernation.’ In this hibernation, Everyone will be able to put themselves into artificial hibernation when they suddenly become sick. Each of us will be able to control when to hibernate. This would help many people.” Before starting this research, Mr. Sunagawa was a doctor. He took care of sick children at one of the famous children’s hospitals in Japan. He saved many children, but He could not forget the children who were not saved. Because of that experience, he started his hibernation research.

If we can hibernate for longer periods of time, this technology will be used in other fields. Mr. Sunagawa said, “In the future, hibernation will be used for space travel. If you are in hibernation while you travel in space, by saving water and food, it will be possible to travel beyond the stars.” Hibernation may be a technology that gives us more chances for space travel.

I thought that hibernation was a mysterious phenomenon found only in some animals, but recent research in science and technology shows that there is a chance of applying hibernation to humans. After researching hibernation, I became interested in hibernation in the medical field. If humans can use artificial hibernation, more people will be saved in the future. I look forward to future research on hibernation as [can / help / sick / that / people / or injured / a technology].

4 次の英文を読んで、下線部の質問に対するあなたの考えを、その理由が伝わるように、〔記入上の注意〕に従って40語以上50語程度の英語で書きなさい。*印のついている語句には、本文のあとに〔注〕があります。(10点)

Some people buy things with money. However, these days, many people use *cashless payments, such as *credit cards or *electronic money. Cashless payments include IC cards and *prepaid cards. Do you think people should use that way to pay more often?

〔注〕 cashless payment キャッシュレス決済 credit card クレジットカード
 electronic money 電子マネー prepaid card プリペイドカード

〔記入上の注意〕

- ① 【記入例】にならって、解答欄の下線 _____ の上に1語ずつ書きなさい。
 - ・符号(, . ? ! など)は語数に含めません。
 - ・50語を超える場合は、解答欄の破線 _____ で示された行におさまるように書きなさい。
- ② 英文の数は問いません。
- ③ 【下書き欄】は、必要に応じて使ってかまいません。

【記入例】

Hi!	I'm	Nancy.	I'm	from
Canada.	Where	are	you	from?
is	April	2,	2008.	It
<div style="text-align: right; font-size: small;">50語</div>				
is Ken's birthday, too.				

(以上で問題は終わりです。)