A 面

英 語 〔A問題〕 （一般入学者選抜）

1 次の(1)～(10)の日本語の文の内容と合うように、英文中の（　　）内の**ア**～**ウ**からそれぞれ最も適しているものを一つずつ選び、記号を○で囲みなさい。

(1) この辞書は便利です。
This（ **ア** bicycle　**イ** dictionary　**ウ** map ）is useful.

(2) その歌手は日本でとても人気があります。
The singer is very（ **ア** kind　**イ** popular　**ウ** rich ）in Japan.

(3) 私は毎月、祖母に電話をかけます。
I（ **ア** call　**イ** help　**ウ** see ）my grandmother every month.

(4) あなたは今週の土曜日、どこへ行く予定ですか。
（ **ア** When　**イ** Where　**ウ** Why ）are you going to go this Saturday?

(5) 私たちの町について話しましょう。
Let's talk about（ **ア** our　**イ** us　**ウ** we ）town.

(6) 彼は私の誕生日に私に本をくれました。
He（ **ア** gave　**イ** give　**ウ** given ）me a book on my birthday.

(7) 彼女はフランス語を話しますか。
（ **ア** Do　**イ** Does　**ウ** Is ）she speak French?

(8) その新しい駅は1か月前に建てられました。
The new station was（ **ア** build　**イ** building　**ウ** built ）one month ago.

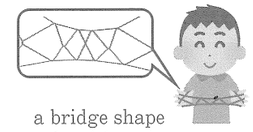
(9) 彼らは牛乳を買うためにスーパーマーケットへ行きました。
They went to the supermarket（ **ア** bought　**イ** buy　**ウ** to buy ）milk.

(10) もしあなたが私なら、あなたはどちらを選びますか。
If you（ **ア** am　**イ** is　**ウ** were ）me, which would you choose?

2 ヒロキ（Hiroki）は日本の高校生です。次の［Ⅰ］、［Ⅱ］に答えなさい。

［Ⅰ］ 次は、ヒロキが英語の授業で行ったスピーチの原稿です。彼が書いた原稿を読んで、あとの問いに答えなさい。

Do you know about "*ayatori*"? The Japanese word "*ayatori*" means playing by making various shapes with string. In Japan, some children enjoy ① shapes of things, for example, a river and a bridge. Last week, I joined a party to welcome some students from Australia. At the party, I introduced *ayatori*. But Ⓐthey already knew how to make various shapes with string. One of such shapes was a fish shape. I saw the shape for the first time.


a bridge shape made with string

After the party, I read a book and learned that people in some areas in the world enjoy something like *ayatori*. They make many different shapes with string. Those shapes show things ② are often seen in their everyday lives. In one area, people make a cloud shape with string. The weather there often changes, so I imagine they carefully look at clouds. In another area, people make a star shape with string. They know the direction, thanks to one bright star. I think watching stars is important for people there. By learning about various shapes people made with string, I could imagine a part of their lives.

（注） *ayatori* あやとり（糸やひもなどでさまざまな形を作って遊ぶこと）　string 糸、ひも

(1) 次のうち、本文中の ① に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア made　**イ** make　**ウ** making　**エ** to make

(2) 本文中の Ⓐthey の表している内容に当たるものとして最も適しているひとつづきの**英語4語**を、本文中から抜き出して書きなさい。

(3) 次のうち、本文中の ② に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア how　**イ** when　**ウ** where　**エ** which

(4) 次のうち、本文で述べられている内容と合うものはどれですか。一つ選び、記号を○で囲みなさい。

ア ヒロキは、先週参加したパーティーで、あやとりを初めて知った。
イ ヒロキは、パーティーに参加した後、本を読んで、あやとりで橋の形を作る方法を学んだ。
ウ ヒロキは、ある地域の人々が糸で星の形を作るのは、そこの天気がよく変わるからだと学んだ。
エ ヒロキは、人々が糸で作ったさまざまな形について学ぶことで、彼らの生活の一部を想像することができた。

［Ⅱ］ スピーチの後に、あなた（You）がヒロキと次のような会話をするとします。あなたならば、どのような話をしますか。あとの**条件1～3**にしたがって、（ ① ）～（ ③ ）に入る内容を、それぞれ**5語程度**の英語で書きなさい。解答の際には記入例にならって書くこと。

You: Hi, Hiroki.（　　①　　）
Hiroki: Yes, I had a good time with the students from Australia. We are going to have a party again next week. Will you join the party?
You: Yes!（　　②　　）
Hiroki: That's good! Let's think about things we can do together with the students from Australia. What do you want to do with them?
You:（　　③　　）
Hiroki: OK.

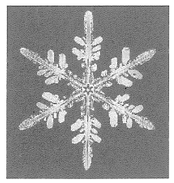
<条件1> ①に、「あなたはそのパーティーを楽しみましたか。」とたずねる文を書くこと。
<条件2> ②に、「私もそれに参加するつもりです。」と伝える文を書くこと。
<条件3> ③に、前後のやり取りに合う内容を書くこと。

記入例

What	time	is	it	?
Well	, it's	11	o'clock	.

3 次は、高校生のリコ（Riko）、アメリカからの留学生のエマ（Emma）、クラスメートのタケオ（Takeo）の3人が学校で交わした会話の一部です。会話文を読んで、あとの問いに答えなさい。

Riko: Hi, Emma. What are you doing with your tablet?
Emma: Hi, Riko. I'm looking at some photos of snow crystals.
Riko: Oh, can I [①] them?
Emma: Sure.
Riko: They look beautiful.
Takeo: Hi, Emma and Riko. What are you doing?
Riko: Hi, Takeo. Emma is showing me some photos of snow crystals on her tablet.
Emma: They were taken about 100 years ago.
Takeo: Oh, that's a long time ago. Let me see them.
Emma: Of course. An American man, Wilson Bentley, took those photos. Have you heard about him?
Riko: [②] I don't know about him.
Takeo: I don't know about him, either.
Emma: I learned about him two years ago.
Riko: Tell us about him.
Emma: Sure. He lived in a small village in America. There, it snowed a lot in winter. When he was 15 years old, he got an old microscope. With that microscope, he saw many things in nature. One of Ⓐthem was a snow crystal.
Takeo: [③] Snow disappears quickly in a warm room.
Emma: You're right. To see the snow crystals, he used his microscope outside his house.
Riko: Wow. He was really interested in snow crystals.
Takeo: I think so, too.
Emma: When he saw them with his microscope, he found each snow crystal had a different shape. He thought every shape was beautiful.
Takeo: So, did he decide to take photos of snow crystals?
Emma: Yes. He wanted to show other people the various beautiful shapes of snow crystals. But, to take photos of them, he had some difficult things to do.
Riko: [④]
Emma: First, to take photos of very small things like snow crystals, he had to connect a camera to his microscope. Also, in those days, cameras didn't have high technology. So, he had to find a way to take clear photos with a camera without high technology. He tried many ideas such as changing some parts of the camera.
Riko: Sounds hard.
Emma: After trying for a few years, he could finally take clear photos of snow crystals. [⑤] that he could do that.
Takeo: I see.
Emma: Through his life, he took more than 5,000 photos of snow crystals. His photo book about snow crystals was first printed in 1931 and was sold in many stores. I guess many people were excited when they saw the photos of snow crystals.
Takeo: Ⓑ I agree. I think they were surprised at the beauty of snow crystals.
Riko: Now, I want to see more photos taken by Wilson Bentley. Thank you for telling me about him, Emma.
Takeo: From your story about him, I became more interested in snow crystals. Thank you, Emma.
Emma: You're welcome!


snow crystal
（雪の結晶）


Wilson Bentley
（ウィルソン・ベントレー）

（注） microscope 顕微鏡

(1) 次のうち、本文中の [①] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア saw　イ see　ウ seen　エ to see

(2) 本文の内容から考えて、次のうち、本文中の [②] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア Yes, I was.　イ Yes, you did.
ウ No, I haven't.　エ No, you are not.

(3) 本文中のⒶthem の表している内容に当たるものとして最も適しているひとつづきの**英語4語**を、本文中から抜き出して書きなさい。

(4) 本文中の [③] が、「顕微鏡で雪の結晶を見ることは難しかったと私は思います。」という内容になるように、次の〔　　〕内の語を並べかえて解答欄の＿＿＿＿に英語を書き入れ、英文を完成させなさい。

I think that it 〔 hard　see　to　was 〕 snow crystals with a microscope.

(5) 本文の内容から考えて、次のうち、本文中の [④] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア What did he have to do to take photos of snow crystals?
イ Where did he see the snow crystals with his microscope?
ウ Who took photos of snow crystals for him?
エ Why did he try to take photos of snow crystals?

(6) 本文中の ' [⑤] that he could do that.' が、「彼はそれができてうれしかった。」という内容になるように、解答欄の＿＿＿＿に**英語3語**を書き入れ、英文を完成させなさい。

(7) 次のうち、本文中のⒷI agree. が表している内容として最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア Takeo thinks more people should know about snow crystals.
イ Takeo thinks many people should take photos of snow crystals.
ウ Takeo thinks many other people also took photos of snow crystals.
エ Takeo thinks many people felt excited by seeing photos of snow crystals.

(8) 本文の内容と合うように、次の問いに対する答えをそれぞれ英語で書きなさい。ただし、①は**3語**、②は**7語**の英語で書くこと。

① Did Wilson Bentley use his microscope outside his house?
② When did Emma learn about Wilson Bentley?

英　語　〔B問題〕　（一般入学者選抜）

1　次は、高校生のリコ（Riko）、アメリカからの留学生のエマ（Emma）、クラスメートのタケオ（Takeo）の３人が学校で交わした会話の一部です。会話文を読んで、あとの問いに答えなさい。

Riko: Hi, Emma. What are you doing with your tablet?
Emma: Hi, Riko. I'm looking [①] some photos of snow crystals. They are beautiful, right?
Riko: Oh, yes, they are.
Takeo: Hi, Emma and Riko. What are you doing?
Riko: Hi, Takeo. Emma is showing me some photos of snow crystals on her tablet.
Takeo: Oh, they look beautiful.
Emma: These photos were actually taken about 100 years ago.
Takeo: That's a long time ago. I didn't know people could take such clear photos of snow crystals then.
Emma: An American man, Wilson Bentley, was able to take those photos after trying for a few years. [②]
Takeo: No. I don't know about him.
Riko: I don't know about him, either. Can you tell us about him?
Emma: Sure. I read some books about the man before. According to Ⓐthem, he got interested in snow crystals when he was 15 years old. He lived in a village which had a lot of snow in winter. On his 15th birthday, he got an old microscope from his family. With that microscope, he saw snow crystals.
Takeo: I think it was hard to see them with a microscope. Snow disappears quickly in a warm room.
Emma: You're right. To see the snow crystals, he often used his microscope outside his house. He didn't mind staying outside in winter.
Riko: Wow, he was really interested in snow crystals.
Emma: By seeing many snow crystals with his microscope, he found no snow crystals had the same shape. He was excited to find that.
Takeo: Oh, I was also excited to find [③]. I'm glad that he and I felt excited about the same point about snow crystals.
Emma: That's good, Takeo. [ア] Later in his life, he expressed how he felt when he saw the various shapes of snow crystals. [イ] He said that every snow crystal was a masterpiece of design.
Riko: Oh, I like the phrase he used.
Emma: He [④] how beautiful shapes of snow crystals were.
Takeo: So, did he decide to take photos of snow crystals?
Emma: Yes, but, to take photos of very small things like snow crystals, he had some difficult things to do. [ウ] First, he had to connect a camera to his microscope. Also, in those days, he could only get a camera without high technology. [エ] He tried many ideas such as changing some parts of the camera.
Riko: Sounds hard.
Emma: After trying for a few years, he could finally take clear photos of snow crystals.
Riko: That means [⑤]. I can imagine how happy he was when he took the clear photo of a snow crystal for the first time.
Emma: I agree. Through his life, he took more than 5,000 photos of snow crystals. His photo book on snow crystals was first printed in 1931 and was sold in many stores.
Takeo: [⑥]
Emma: Yes. Actually, the photo book had an influence on a Japanese scientist. The scientist was moved by the photo book and he started his research on snow crystals. He studied how the shapes of snow crystals were made. His research is famous around the world.
Riko: Wow, it is interesting to know how one person's works affected the life of someone else. I want to see more photos taken by Wilson Bentley. Thank you for telling us about him, Emma.
Takeo: After hearing your story about him, I want to know more about snow crystals. Thank you, Emma.
Emma: You're welcome!


snow crystal
（雪の結晶）


Wilson Bentley
（ウィルソン・ベントレー）

（注）　microscope　顕微鏡　　masterpiece　傑作

(1)　次のうち、本文中の [①] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア　at　　イ　during　　ウ　off　　エ　since

(2)　本文の内容から考えて、次のうち、本文中の [②] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア　Did you see the photos of snow crystals on my tablet?
イ　Do snow crystals in his photos look beautiful?
ウ　Have you heard about him?
エ　How many times did he try?

(3)　本文中のⒶthemの表している内容に当たるものとして最も適しているひとつづきの**英語５語**を、本文中から抜き出して書きなさい。

(4)　本文の内容から考えて、次のうち、本文中の [③] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア　all the shapes of snow crystals looked the same in the photos
イ　each snow crystal had a different shape
ウ　shapes of snow crystals could be seen in a warm room
エ　special microscopes were made to see snow crystals

(5)　本文中には次の英文が入ります。本文中の [ア] ～ [エ] から、入る場所として最も適しているものを一つ選び、**ア～エ**の記号を○で囲みなさい。

So, he had to find a way to take clear photos of snow crystals with such a camera.

(6)　本文中の 'He [④] how beautiful shapes of snow crystals were.' が、「彼は雪の結晶の形がどれほど美しいかを人々に知ってほしかった。」という内容になるように、解答欄の＿＿＿＿に**英語４語**を書き入れ、英文を完成させなさい。

(7)　本文の内容から考えて、次のうち、本文中の [⑤] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア　he didn't use his microscope and his camera for a few years
イ　he kept trying to take clear photos of snow crystals until he had success
ウ　he kept hiding the clear photos of snow crystals after he took those photos
エ　he found someone who could take photos for him after he stopped taking photos of snow crystals

(8)　本文中の [⑥] が、「それは、人々に雪の結晶に興味をもつ機会を与えたと私は思います。」という内容になるように、次の〔　　〕内の語を並べかえて解答欄の＿＿＿＿に英語を書き入れ、英文を完成させなさい。

I guess that it 〔 become　chances　gave　people　to 〕 interested in snow crystals.

(9)　次のうち、本文で述べられている内容と合うものはどれですか。**二つ**選び、記号を○で囲みなさい。

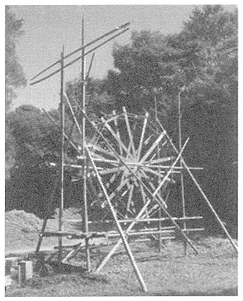
ア　When Takeo talked to Emma and Riko, Emma was trying to take photos of snow crystals.
イ　Wilson Bentley saw snow crystals with a microscope he got from his family.
ウ　To take clear photos of snow crystals, Wilson Bentley faced some difficult things.
エ　Riko said one of the photos Wilson Bentley took was a masterpiece.
オ　Wilson Bentley was encouraged by a Japanese scientist and kept taking photos of snow crystals.

2 高校生のミホ（Miho）が英語の授業でスピーチを行いました。次の［Ⅰ］、［Ⅱ］に答えなさい。

［Ⅰ］ 次は、ミホが行ったスピーチの原稿です。彼女が書いた原稿を読んで、あとの問いに答えなさい。

Last week, when I was doing research about water problems in the world, I found some interesting information. According to Ⓐit, a traditional Japanese method for digging a well is now helping people in other countries. The method is called "*Kazusabori*." *Kazusabori* was developed in the late 19th century in the Kazusa area. The method was [①] to many other areas in Japan and was used in those areas until people started to use machines for digging wells. Why is it now helpful overseas? This question [②] to learn more about *Kazusabori*.

First, I will explain what *Kazusabori* is. It is a method for digging a deep well safely. The method was developed while people in the Kazusa area were trying to solve their water problems. In the area, rivers were in low places and it was difficult for farmers to bring water from those rivers to their land in higher places. So, people in the area dug wells to get water which was under the ground. Each well had to be deep enough to [③] water under the ground. At first, people dug a well by working inside a hole. However, that way was dangerous. Also, they couldn't dig a deep well in that way. [④] The long stick was made of bamboo and had an iron part at the bottom. As the hole became deeper, they made the stick longer. Another tool was created to move the long stick without using much power. They also created a tool which helped them carry broken pieces of rocks out of the hole. With these tools, people could safely dig a well which was a few hundred meters deep. People used bamboo and other materials around them to make these tools. There were many bamboo forests in the area, and bamboo was light, strong and flexible. The method of digging a well with these tools was used in many areas in Japan. People in those areas started to call the method *Kazusabori*.


the tools for *Kazusabori*

About one century later, *Kazusabori* was introduced in some areas in the world as a method for digging a well without using a machine. In those areas, some people had to walk for many hours to a river to get water and then walk back with heavy water. In 1981, people started to dig wells with *Kazusabori* in one Asian country. Wells [⑤] in some schools helped children get water easily. Later, *Kazusabori* was introduced in one country in Africa, too. However, people there couldn't get bamboo. So, people used the idea of *Kazusabori* and made similar tools for digging a well with things such as rubber tubes. [⑥] Finally, they completed some wells by using their tools. The number of wells in Asia and Africa increased little by little, and now more people are able to get water easily. In the world, there are still serious water problems. I'm proud of *Kazusabori* because it helps people solve them. Thank you for listening.

（注） dig 掘る（過去形は dug） well 井戸
Kazusabori 上総掘り（上総地方（現在の千葉県中央部）に伝わる井戸掘りの方式）
the Kazusa area 上総地方 safely 安全に bamboo 竹
iron 鉄 flexible しなやかな rubber tube ゴム管

(1) 本文中のⒶitの表している内容に当たるものとして最も適しているひとつづきの**英語3語**を、本文中から抜き出して書きなさい。

(2) 本文の内容から考えて、次のうち、本文中の [①] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア joined イ returned ウ spread エ worn

(3) 本文中の 'This question [②] to learn more about *Kazusabori*.' が、「この疑問が、上総掘りについてより多くのことを学ぼうと私に決心させました。」という内容になるように、解答欄の＿＿＿＿に**英語3語**を書き入れ、英文を完成させなさい。

(4) 本文の内容から考えて、次のうち、本文中の [③] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア add イ change ウ leave エ reach

(5) 本文中の [④] に、次の（ⅰ）～（ⅲ）の英文を適切な順序に並べかえ、前後と意味がつながる内容となるようにして入れたい。あとのア～エのうち、英文の順序として最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

（ⅰ） By moving the long stick outside the hole, people could break rocks in the hole without working inside the hole.
（ⅱ） One of them was a long stick used to make a deep hole.
（ⅲ） So, people kept improving their way for digging a well, and finally created some useful tools.

ア （ⅰ）→（ⅱ）→（ⅲ） イ （ⅰ）→（ⅲ）→（ⅱ）
ウ （ⅲ）→（ⅰ）→（ⅱ） エ （ⅲ）→（ⅱ）→（ⅰ）

(6) 次のうち、本文中の [⑤] に入れるのに最も適しているものはどれですか。一つ選び、記号を○で囲みなさい。

ア complete イ completed ウ were completed エ were completing

(7) 本文中の [⑥] が、「彼らはそこで簡単に得ることができるものを使いました。」という内容になるように、次の〔 〕内の語を並べかえて解答欄の＿＿＿＿に英語を書き入れ、英文を完成させなさい。

They 〔 could they things used 〕 easily get there.

(8) 次のうち、本文で述べられている内容と合うものはどれですか。一つ選び、記号を○で囲みなさい。

ア Miho learned that *Kazusabori* was developed while people in the Kazusa area were making an effort to solve their water problems.
イ Miho learned that people in the Kazusa area easily brought water to their land in low places from rivers in higher places.
ウ Miho learned that people in the Kazusa area dug a well which was a few hundred meters deep without using any tools.
エ Miho learned that the number of wells in Asia and Africa decreased because people started to get water easily from rivers.

(9) 本文の内容と合うように、次の問いに対する答えをそれぞれ英語で書きなさい。ただし、①は**3語**、②は**8語**の英語で書くこと。

① Did people in the Kazusa area use bamboo to make tools for digging a well?
② Why is Miho proud of *Kazusabori*?

［Ⅱ］ スピーチの後に、あなた（You）とミホが、次のような会話をするとします。あなたならば、どのような話をしますか。あとの**条件1・2**にしたがって、（ ① ）、（ ② ）に入る内容をそれぞれ英語で書きなさい。解答の際には記入例にならって書くこと。文の数はいくつでもよい。

You: Miho, your speech was interesting. People have made various things to improve their lives. （ ① ）
Miho: I agree. What is the most convenient thing in your life? How is it convenient?
You: （ ② ）
Miho: I see.

＜条件1＞ ①に、「今では私たちを助けてくれるものがたくさんあります。」と伝える文を、10語程度の英語で書くこと。
＜条件2＞ ②に、前後のやり取りに合う内容を、20語程度の英語で書くこと。

記入例
When is your birthday?
Well, it's April 11.

英　語　〔C問題〕　（一般入学者選抜）

1 Choose the phrase that best completes each sentence below.

(1) Please tell (　　) help you.

ア I can do what to me　　イ I can what to do me
ウ me do what to I can　　エ me what I can do to

(2) She was excited (　　) the national tournament.

ア the player who won to see　　イ to see the player who won
ウ to the player who won see　　エ won the player who see to

(3) These broken things (　　) money.

ア can be repaired without much　　イ can repaired without much be
ウ without much be repaired can　　エ without repaired can be much

(4) I wonder (　　) to get here.

ア how many hours they kept walking　　イ how walking they kept many hours
ウ many hours kept how they walking　　エ many hours they kept walking how

(5) I (　　) on a bus.

ア get many bags a person holding helped　　イ get a person helped many bags holding
ウ helped a person holding many bags get　　エ helped many holding bags a person get

(6) The website (　　) data for my research.

ア included various useful you recommended　　イ you included various useful recommended
ウ you recommended included various useful　　エ various useful recommended you included

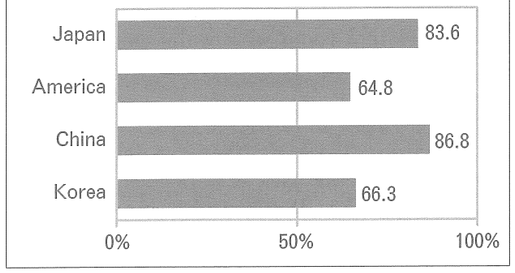
2 Read the passage and choose the answer which best completes each blank ① and ②, and choose the best answer to the question (3).

In 2023, a report was made on a survey to see what high school students think about changes in technology such as AI. The survey was done on high school students in four countries: Japan, America, China and Korea. In each country, more than 1,800 students joined the survey. It included many questions, and, for each question, the students were asked to choose one response from 4 choices: "definitely yes," "somewhat yes," "somewhat no" and "definitely no." The following graphs show the percentages of the students who chose "definitely yes" or "somewhat yes" for two of the questions.

Graph 1 shows the results of the question: "Do you think that the importance of human relationships will stay the same even if technology changes?" To this question, [　①　] in all of the four countries chose "definitely yes" or "somewhat yes." Among the four countries, the percentage of the students who chose "definitely yes" or "somewhat yes" to the question was the highest in [　②　]. Graph 2 shows the results of the question: "Are you worried about changes in technology?" The percentages of the students who chose "definitely yes" or "somewhat yes" to the question were between 50 percent and 60 percent in all of the four countries; and the percentage of the students who chose those two responses was lower in Japan than the percentages of the students who chose those two responses in America and Korea.

【Graph 1】

The percentages of the students who chose "definitely yes" or "somewhat yes" to the question: "Do you think that the importance of human relationships will stay the same even if technology changes?"



【Graph 2】

The percentages of the students who chose "definitely yes" or "somewhat yes" to the question: "Are you worried about changes in technology?"

(A)

(国立青少年教育振興機構「高校生の進路と職業意識に関する調査報告書(令和5年)」により作成)

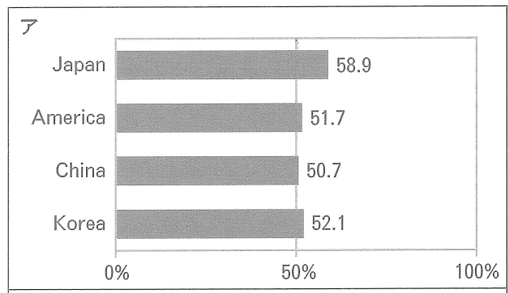
(注) definitely　明確に、はっきりと
somewhat　やや
graph　グラフ
importance　大切さ
human relationship　人と人とのつながり

(1) ① ア less than half of the students　　イ 83.6 percent of the students
ウ only a quarter of the students　　エ more than 60 percent of the students

(2) ② ア Japan　　イ America　　ウ China　　エ Korea

(3) Which graph should be put in (A) ?

ア



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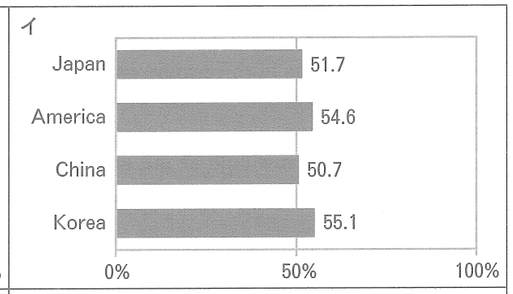

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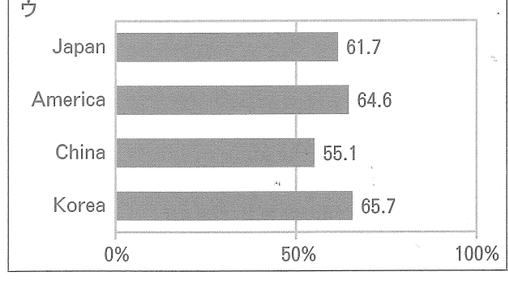
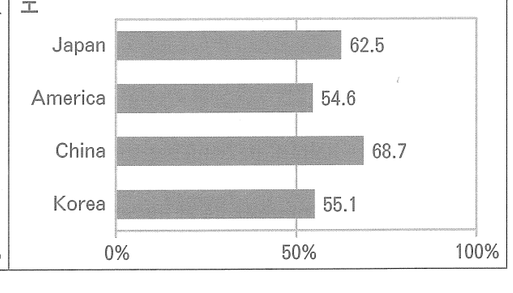


エ



3 Read the passage and choose the answer which best completes each sentence (1)～(5).

There are various products made of cork around us such as cork stoppers and cork boards. For thousands of years, people have used cork for making various things because cork is light and doesn't easily let water go through. In the 18th century, as more glass bottles were used, more cork was used for making stoppers of the bottles. These days, cork is often recycled. Recycled cork is used for walls of buildings because walls using cork don't easily let heat go through. Even if the temperature outside becomes very high, the temperature in a room with walls using cork isn't affected a lot. Many people know that cork is a [①] material because it can be recycled, and now it is getting attention for more reasons.

Cork comes from the bark of cork oak trees. These trees grow in forests in a part of Europe and a part of Africa. You may think that, when people harvest the bark, they cut down the trees. However, the bark can be harvested without doing so. After the bark is harvested, new bark is made. People can harvest the bark of one cork oak tree about 15 to 18 times while the tree is living, and cork oak trees live for about 200 years. For these many years, cork oak trees can be a good home for various animals including some endangered birds and can support the diversity of species in forests. Also, when cork oak trees make new bark, the amount of carbon dioxide they take in from the air greatly increases. That means the trees [②].

Now, many companies pay attention to this eco-friendly material and its excellent features, and they use it to make even some parts of space ships.

(注) cork コルク材　stopper 栓　heat 熱
bark 樹皮　cork oak tree コルク樫(かし)の木　harvest 採取する
endangered 絶滅の危機にさらされた　carbon dioxide 二酸化炭素
take in 取り入れる

(1) The temperature in a room with walls using cork
ア is easily influenced by the temperature outside.
イ doesn't change a lot even if it gets very hot outside.
ウ is always high because walls using cork let heat go into the room.
エ is always low because walls using cork let heat go out of the room.

(2) The word which should be put in [①] is
ア medical.　イ narrow.　ウ social.　エ sustainable.

(3) People can harvest the bark of a cork oak tree
ア by cutting down the tree.　イ without cutting down the tree.
ウ about 15 to 18 times every year.　エ 200 times while the tree is living.

(4) The phrase which should be put in [②] is
ア always take in the same amount of carbon dioxide from the air.
イ are helpful in reducing the amount of carbon dioxide in the air.
ウ have no chance to take in carbon dioxide from the air.
エ play a major role in increasing the amount of carbon dioxide in the air.

(5) According to the passage,
ア people first started to use cork to make things in the 18th century.
イ cork houses built for endangered animals are supporting their lives.
ウ cork is the bark of a specific kind of tree which can be seen in a part of Europe and a part of Africa.
エ many companies have started using other materials instead of cork to protect the environment.

4 Read the passage and choose the answer which best completes each sentence (1)～(5).

Many people may not know what "*Kazusabori*" is. It is a method for digging a deep well safely. The method was developed in the Kazusa area in Japan in the late 19th century. In the area, it was difficult to get water from rivers, so people dug wells. Each well had to be deep enough to reach water under the ground. At first, people dug a well by working inside a hole. However, that way was dangerous. Also, they couldn't dig a deep well in that way. So, they tried many different ways. And finally they were successful in digging a deep well safely by using some tools they created. [A] The long stick was made of bamboo and it had an iron part at the bottom. By moving the long stick outside the hole, people broke rocks in the hole without working inside. [B] As the hole became deeper, they made the stick longer. [C] Another tool was created to move the long stick without using much power. [D] They also created a tool which helped them remove broken pieces of rocks out of the hole. With these tools, people could safely dig a well which was a few hundred meters deep. People used not only bamboo but also other materials around them to make these tools. The method of digging a well with these tools was [①] to many areas in Japan. People in those areas started to call the method *Kazusabori* and used it until people there started to use machines.

About one century later, *Kazusabori* was introduced in some areas in the world as a method for digging a well without using a machine. In those areas, some people had to walk to a river to get water and then walk back with heavy water. In 1981, people started to dig wells with *Kazusabori* in one Asian country. Wells completed in some schools helped children get water easily. Later, *Kazusabori* was introduced in one country in Africa, too. However, people there couldn't get bamboo. So, they used the idea of *Kazusabori* and made similar tools for digging a well by using things they could easily get there. Finally, they completed some wells by using Ⓐthese tools. The number of wells in Asia and Africa increased little by little, and now more people are able to get water easily. There are still serious water problems in the world. *Kazusabori* is helping people solve them.

(注) *Kazusabori* 上総掘(かずさ)り（上総地方（現在の千葉県中央部）に伝わる井戸掘りの方式）
dig 掘る（過去形は dug）　well 井戸　safely 安全に
the Kazusa area 上総地方　bamboo 竹　iron 鉄

(1) People in the Kazusa area tried many different ways to
ア dig a deep well safely.　イ dig wells all over Japan.
ウ find a safe way for working in rivers.　エ go to rivers.

(2) The sentence "One of them was a long stick used to make a deep hole." should be put in
ア [A].　イ [B].　ウ [C].　エ [D].

(3) The word which should be put in [①] is
ア joined.　イ returned.　ウ spread.　エ worn.

(4) The phrase Ⓐthese tools refers to
ア the tools made of bamboo.
イ the tools made in the Kazusa area.
ウ the tools people in an Asian country made without using the idea of *Kazusabori*.
エ the tools people in a country in Africa made with things they could easily get there.

(5) According to the passage,
ア people in the Kazusa area used only bamboo to make all the tools for digging a well.
イ *Kazusabori* was introduced in some areas in the world in the late 19th century.
ウ people in one Asian country couldn't start to dig wells in 1981 because they didn't have machines for digging a well.
エ thanks to *Kazusabori*, people in some areas in the world can get water easily.

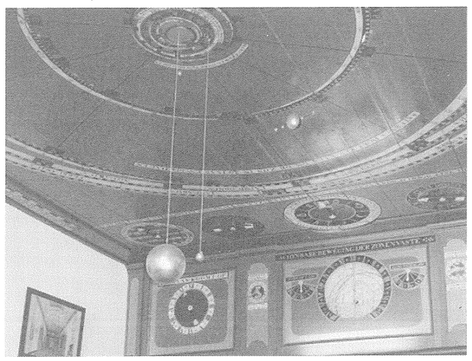
5 Read the passage and choose the answer which best completes each sentence (1), (2), (4), (5) and (6), and choose the answer to the question (3).

Today, if people visit a planetarium, they can learn the positions and movements of celestial bodies. Many planetariums today show those things with machines using high technology. This type of modern planetarium was born in Germany at the beginning of the 20th century. [①] that type of modern planetarium was made, in the late 18th century, a man in the Netherlands tried to show the positions and movements of celestial bodies in a different way. The man's name is Eise Eisinga. After graduating from elementary school, he didn't continue to study in school, but he kept studying math and science by himself. He was especially interested in celestial bodies.

In 1774, when he was 30 years old, a special phenomenon was seen in the sky. On May 8th, 1774, four planets and the moon were seen close together in the eastern sky at the same time. A local newspaper in the Netherlands said that the earth would be greatly damaged because of this phenomenon. When people read the newspaper, many of them believed that the things written in the newspaper were [②], so they worried about the earth and their lives very much. Now, many people know that this type of phenomenon doesn't cause any trouble to the earth or people's lives. However, the situation was different in 1774. In those days, only a few people including Eise Eisinga had enough information on the positions and movements of the celestial bodies to understand that the phenomenon would not affect the earth. On the other hand, many other people at the time didn't have such information. [③] He thought people could learn about celestial bodies with the system.

He tried many ideas and created a system to show the positions and movements of the sun and some planets. It was a system which he put on the ceiling of a room in his house. Round objects were used to show the celestial bodies. The system including those round objects was moved by only one pendulum clock set in the attic above the room. With this system, people could easily see how the celestial bodies moved by looking up. The system was not simple and he needed many things such as gears and pulleys to complete the system. Surprisingly, he made most parts for the system by himself. He even made thousands of nails used for the system. The system was designed very well. When he almost finished creating the system, some scientists visited his house to see it. They were surprised to find the system was designed very well to show the positions and movements of the celestial bodies clearly. Like this, [④] before it was completed, and they were looking forward to seeing the completed system.

After seven years of hard work, he finally completed his system and called the room with the system a "planetarium." He let people come inside and see his planetarium. His planetarium became very popular, and not only his neighbors but also people who lived far away came to see it. His hope of sharing his information about celestial bodies with others resulted in creating his planetarium to show the latest information about celestial bodies at the time. Though his planetarium was quite different from many of today's planetariums which use high technology to show celestial bodies, his planetarium played an important role to help people understand better about celestial bodies. Eise Eisinga's planetarium still works and accepts visitors from all over the world.



(注) planetarium プラネタリウム
Eise Eisinga アイゼ・アイジンガー
ceiling 天井
attic 屋根裏
part 部品
celestial body 天体
phenomenon 現象
object 物体
gear 歯車
nail くぎ
the Netherlands オランダ
moon 月
pendulum clock 振り子時計
pulley 滑車

(1) The word which should be put in [①] is
ア After. イ Before. ウ If. エ Since.

(2) The word which should be put in [②] is
ア old. イ peaceful. ウ true. エ wrong.

(3) The following passages (i) ～ (iii) should be put in [③] in the order that makes the most sense.
(i) He saw those neighbors and wanted to help them have correct information about celestial bodies.
(ii) Many of Eise Eisinga's neighbors were also afraid that terrible things would happen to the earth because of the special phenomenon.
(iii) To do this, he decided to create a system which showed the positions and movements of some celestial bodies.

Which is the best order?
ア (ii) → (i) → (iii) イ (ii) → (iii) → (i)
ウ (iii) → (i) → (ii) エ (iii) → (ii) → (i)

(4) The phrase which should be put in [④] is
ア he didn't let people see the system.
イ many people designed the system.
ウ people were against the system.
エ the system attracted people.

(5) According to the passage, the system Eise Eisinga created
ア was completed without using any nails.
イ was put on the floor of a room in his house.
ウ used round objects to show some celestial bodies.
エ used many pendulum clocks to move the objects in the system.

(6) According to the passage,
ア Eise Eisinga didn't study math and science after graduating from elementary school.
イ though Eise Eisinga never called the room with the system he created a "planetarium," his neighbors started to call it a "planetarium."
ウ both Eise Eisinga's neighbors and people living far from his house visited his planetarium.
エ Eise Eisinga shared his information about the way to create planetariums with his neighbors and that led them to create planetariums with high technology.

6 Read the following sentences and write your answer in English.

Through various experiences, people learn many things and change. Write about one of your experiences which helped you learn something important. Write what you learned from the experience, and after that, write how you changed through the experience.