

英 語

注 意

- 1 声に出して読むはいけません。
- 2 問題は **1** から **3** までで、11 ページにわたって印刷してあります。
- 3 **1** はリスニングテストです。
リスニングテストは、**検査開始直後**に行います。
- 4 **受検番号**を、解答用紙の決められた欄に記入しなさい。
- 5 答えは、全て解答用紙の決められた欄に記入しなさい。
- 6 答えは、**特別の指示**のあるもののほかは、各問の**ア・イ・ウ・エ**のうちから最も適切なものをそれぞれ一つずつ選んで、答えの欄に、その記号を記入しなさい。
- 7 記号を書くときも、文字を書くときも、明確に書きなさい。
- 8 答えを直すときは、きれいに消してから、新しい答えを記入しなさい。
- 9 提出するのは、**解答用紙**だけです。

問題は次のページから
印刷されています。

1 リスニングテスト（放送で指示があります。）

第1部

〔No. 1〕

- ア The customer will get two tickets for tonight.
- イ The customer will buy four tickets for tomorrow night.
- ウ The customer will have four concert tickets for tonight.
- エ The customer will take no tickets for tomorrow night.

〔No. 2〕

- ア She wants a cup of coffee without sugar and milk.
- イ She wants a cup of coffee with milk.
- ウ She wants a cup of coffee with sugar and milk.
- エ She wants a cup of coffee with sugar.

〔No. 3〕

- ア To bring it to her teacher.
- イ To show it to the boy.
- ウ To look for it in her bag.
- エ To get it from the boy.

〔No. 4〕

- ア Mary's dog is brown and Ken's dog is white.
- イ They have the same color hair and are different ages.
- ウ Mary's dog is white and Ken's dog is brown.
- エ They have the same color hair and are the same age.

〔No. 5〕

- ア There is a problem with his machine.
- イ He went to the wrong meeting.
- ウ The meeting was not held in the morning.
- エ The new furniture hasn't arrived yet.

第2部

[No. 1]

- ア You could not see it there.
- イ Did you enjoy it there?
- ウ Have you ever done it there?
- エ You had to stay there.

[No. 2]

- ア There was a post office around the corner.
- イ You can find it on the left side along this street.
- ウ The first train always leaves at 5:00 a.m.
- エ You can ride three kinds of trains at the station.

[No. 3]

- ア You visited the airport.
- イ The road was still wet.
- ウ The bus stop was quite new.
- エ I came by car and train.

[No. 4]

- ア Well, I took it when I went to France.
- イ So, I don't know how to clean the wall.
- ウ No, you must also take a photo of a carrot.
- エ Now, you have a beautiful watch.

[No. 5]

- ア I'm looking forward to doing that.
- イ Maybe you left it in the cafeteria.
- ウ I know you'll be fine tomorrow.
- エ You don't know when you bought it.

2

次の文章を読んで、あとの各問に答えなさい。

(*印の付いている語句には、本文のあとに〔注〕があります。)

Some things *float and others don't in water. This happens because of two kinds of *force. One is called *buoyancy. This is the force that pushes things up. The other is called *gravity. This is the force which pulls things down. Let's look at these kinds of force around us.

Have you ever put an orange in water? An orange with its *skin floats on water. On the other hand, an orange without its skin doesn't float on it. Although a *peeled orange becomes (1) than an orange with its skin, it doesn't float on water. Why does it happen? Instead of the difference of *mass, *density decides what floats on water. When things are *denser than water, the gravity becomes greater than the buoyancy. In the case of the two types of orange, an orange with its skin is not as dense as water. Why does this happen? There are some reasons. One of them is that this type of orange has air between the skin and the meat of the fruit. But a peeled orange is denser than water because it doesn't hold the air. Peeling an orange changes its density.

How about a ball of *iron? It doesn't float because iron is denser than water. Although we use iron to make a ship, an iron ship is not full of iron and is empty inside. (2) [looks / a ball / cut / it / like] in half. The size is big, and the *volume becomes large. Because there is a lot of air inside, it is not as dense as water. So, it can get great force of buoyancy, and it can also float on water when it stops. This shows that the buoyancy and the gravity are *equal in *magnitude.

Buoyancy acts not only in water but also in the air. Let's think about a balloon flying high in the air. In many balloons, there is *gas such as *helium. When gas is not as dense as air, it goes up. Because helium is not as dense as air, a balloon that is full of helium is pushed up by buoyancy and (3) fly high. Next, what will happen if you make a balloon big with an *air pump? The air inside the balloon and the air around it are equal in density. Does it stay in the air? In fact, the balloon goes down because of its own mass. Although the two kinds of density are equal, it cannot get great force of buoyancy. Then, when you make a balloon big with air from your mouth, it goes down to the ground. Because it has *carbon dioxide, *water vapor and so on, the air inside the balloon becomes denser than the air around it. So, (4) this kind of balloon does not float. The buoyancy and the gravity change because of the different density of the gas inside the balloon and the air around it.

(5) , when gas becomes hotter, it gets bigger in size and smaller in density. A hot air balloon is made in this way. A *gas burner makes the air hot and the density of the warmer air becomes smaller than that of the air around it. This causes greater

buoyancy and the balloon is pushed up. When the air in it becomes cooler, the density is changed. It loses buoyancy and then goes down. In this case, buoyancy is caused by the difference in of the air inside the hot air balloon and that around it. When the gravity and the buoyancy of the hot air balloon are equal in magnitude, it stays at the same *height in the air. In this way, a hot air balloon moves up or moves down, or it stays in the air.

Now we understand that buoyancy and gravity are around us and cases affect things in water or air. First, when buoyancy is greater than gravity, things go up. Second, when gravity is greater than buoyancy, things go down. Finally, when buoyancy and gravity are equal in magnitude, things in one place. Everything in the natural world is affected by many kinds of forces like buoyancy and gravity. Let's learn about those around you.

〔注〕

float 浮く	force 力	buoyancy 浮力
gravity 重力	skin 皮	peel 皮をむく
mass 重さ	density 密度	dense 密度が高い
iron 鉄	volume 体積	equal 等しい
magnitude 大きさ	gas 気体	helium ヘリウム
air pump 空気入れ	carbon dioxide 二酸化炭素	
water vapor 水蒸気	gas burner ガスバーナー	height 高さ

〔問1〕 にはどのような1語が入るのが適切か、選びなさい。

- ア light
- イ lighter
- ウ heavy
- エ heavier

〔問2〕 [looks / a ball / cut / it / like] in half. を、文脈に合うように [] 内の語句を並べ替えた場合、ア～オの中で2番目と4番目にくる語句を記号で答えなさい。ただし、文の最初にくる語も小文字にしてある。

ア looks イ a ball ウ cut エ it オ like

〔問3〕 fly の形として適切なものを選びなさい。

- ア flies
- イ flew
- ウ flown
- エ to fly

〔問4〕 this kind of balloon が表す内容として適切なものを選びなさい。

- ア a balloon that has light gas in it
- イ a balloon that has helium gas in it
- ウ a balloon that has air from an air pump
- エ a balloon that has air from a mouth

〔問5〕 (5) には次のうちどれが入るのが適切か、選びなさい。

- ア One after another
- イ At first
- ウ In addition
- エ After a while

〔問6〕 (6) にはどのような1語が入るのが適切か、選びなさい。

- ア temperature
- イ gravity
- ウ places
- エ gas

〔問7〕 にはどのような1語が入るのが適切か、選びなさい。

- ア one
- イ two
- ウ three
- エ four

〔問8〕 には次のうちどれが入るのが適切か、選びなさい。

- ア go up or down and stay
- イ don't go up or down and stay
- ウ go up or down and don't stay
- エ don't go up or down and don't stay

〔問9〕 次の質問に対する答えとして、本文の内容と合っているものを選びなさい。

Why does a peeled orange go down in water?

- ア Because an orange is peeled and the gravity becomes smaller.
- イ Because the density of a peeled orange and the density of water are equal there.
- ウ Because the buoyancy of a peeled orange in water is stronger than the gravity.
- エ Because a peeled orange doesn't have air and the buoyancy is not as great as the gravity.

〔問10〕 本文の内容と合っているものを選びなさい。

- ア Ships can float when the gravity is stronger than the buoyancy.
- イ A balloon that is full of air from an air pump gets only small buoyancy and can stay in the air.
- ウ Things go up or down in the air and water because of the difference of density.
- エ A hot air balloon stays in the air because the air inside it is denser than the air around it.

3 次の文章を読んで、あとの各問に答えなさい。

(*印の付いている語句には、本文のあとに〔注〕があります。)

Jack was fifteen years old and went to high school in Tokyo. When he was twelve years old, he came to Japan with his family. He enjoyed school and his club activity every day, and also studied hard for his future.

One day before summer vacation, in a class activity, Ms. Hattori, Jack's classroom teacher teaching Japanese history, said, "Well, a piece of your homework in summer vacation is to think about your future. ⁽¹⁾What [you / to / kind of / want / person] be? What will you do when you grow up? Imagine your future." Jack said to her, "I want to know your story. Why did you become a history teacher?" She smiled and answered, "My teacher told me that in the past there were many people with the family name 'Hattori' and they worked in the clothes business. So, I became interested in Japanese history and wanted to know more about it." Jack was excited by her story and said to her, "I understand you studied Japanese history. Then, why did you choose to become a teacher?" She answered, "I *worked part-time as a teacher at a *cram school when I was a university student. Then, I *felt like helping the *growth of children, so I became a teacher." Jack said happily, "Your story is very interesting for me. " He thought he had no ideas about his future, and he wanted to listen to others' stories.

After school, Jack talked with his classmate George *on the way home. "George, what do you want to do in the future?" Jack asked. He thought for a moment and said to him, "Is that summer homework? I like animals, so I want to work with animals." Jack said, "That's great. I know you also like plants and you usually flowers in our school." George said with a shy smile, "My aunt works in a group for dogs, and I sometimes help her. So, I became interested in working with animals, like an animal doctor." "You are very kind to animals, so I think you will become a good animal doctor," Jack said. George answered, "In fact, I am interested in the job. Thank you." After Jack said good-bye to him, he asked himself about his future job. "What will I do when I grow up?"

Then, Jack met Asuka in front of his house. Asuka was a university student who studied *architecture and was his *tutor. Jack said to her, "Hi, Asuka. I want to ask you something." "Okay, what is it?" Asuka answered with a smile. Jack asked, "When you were a high school student, how did you think about your future?" Asuka remembered her days in a high school and said, "When I was in my first year, , and I just felt that I would *work for a company. However, in the summer of my second year, I wanted to go to university and be an architect." Jack knew that she was interested in architecture in her high school days, so he was surprised at her story. He asked Asuka, " Why did

you think so?” “In the summer of my second year, I watched a TV program about old buildings in the world. According to that, buildings and things could *remain longer than the person who made them. Do you understand that?” Asuka said. “No, I don’t. What does it mean?” Jack asked. Asuka smiled and answered, “There are many old buildings in the world. For example, *the Sagrada Familia is one of them. Although *Gaudi, a Spanish architect, started creating it in 1883, it finish even now. Like old buildings, many other things can also remain longer than the person who created them.” Jack said happily, “I understand that. (3) - エ So, did the TV program have an effect on your future?” “Yes, it did. When I watched it, I was so excited. It was amazing for me that the things produced by me *might help people or make them happy for a long time. So, I want to create such things,” Asuka answered. “ Your opinion is great, and your story is very interesting and helpful for me. My summer homework is thinking about my future, so I will start to think about it now,” Jack said to her happily.

After dinner, Jack remembered the stories of his teacher, his friend, and Asuka. Ms. Hattori chose her job because of the things which she wanted to study. George tried to decide ⁽⁸⁾ his through his favorite things. Asuka got *knowledge through a TV program and decided to study architecture at university. Jack found many ways to decide his future. However, he had no ideas about his future. He asked himself, “What can I do? What’s my favorite thing to do? What am I interested in?” He didn’t have any ideas about those questions. He wanted to know more about himself and the world to think about his future. Then he decided to get more experience in this summer vacation. He remembered the words in a book, “Experience tells you what to do.”

〔注〕

work part-time	アルバイトをする	cram school	学習塾
feel like ~ ing	~したい気がする	growth	成長
on the way home	帰りに	architecture	建築学
work for ~	~で働く	remain	残る
the Sagrada Familia	サグラダファミリア	Gaudi	ガウディ
might	かもしれない	knowledge	知識

〔問1〕 ⁽¹⁾ What [you / to / kind of / want / person] be? について、[] 内に
1 語を補った上で並べ替え、文脈に合う文にしてください。

〔問2〕 にはどのような1語が入るのが適切か、選びなさい。

- ア because
- イ what
- ウ although
- エ why

〔問3〕 次の文は本文中の ～ の
どの位置に入るのが適切か、ア～エの記号で答えなさい。

Thanks to your words, I felt sure about myself.

〔問4〕 には次のうちどれが入るのが適切か、選びなさい。

- ア hear of
- イ are afraid of
- ウ take care of
- エ look like

〔問5〕 には次のうちどれが入るのが適切か、選びなさい。

- ア I really thought about your question
- イ I knew you asked me the same question
- ウ I didn't tell you about my big dream
- エ I didn't really know about my future

〔問6〕 ⁽⁶⁾ の形として適切なものを選びなさい。

- ア isn't finished
- イ has finished
- ウ must not finish
- エ to finish

〔問7〕 Your opinion ⁽⁷⁾ が表す内容として適切なものを選びなさい。

- ア Asuka believed buildings and many other things must make people happy.
- イ Asuka felt all the old buildings in the world couldn't remain for a long time.
- ウ Asuka hoped she could create things to help people or to bring joy to them.
- エ Asuka thought TV programs were very great and helped people in the world.

〔問8〕 his ⁽⁸⁾ が表す内容として適切なものを選びなさい。

- ア his job
- イ his story
- ウ his homework
- エ his animal

〔問9〕 次の質問に対する答えとして、本文の内容と合っているものを選びなさい。

What was Jack going to do in this summer vacation?

- ア He was going to decide his future by telling his stories to his friends and teacher.
- イ He was going to get more experience to understand more about himself and the world.
- ウ He was going to watch a lot of TV programs and get knowledge about old buildings.
- エ He was going to read some books which tell him a lot of things about the world.

〔問10〕 本文の内容と合っているものを選びなさい。

- ア When Jack imagined his future, he had some ideas about it and finished his homework.
- イ George decided to be an animal doctor because his aunt and he worked in a group working with animals and plants.
- ウ Asuka knew that she had to go to Spain and be an architect to build great buildings.
- エ Ms. Hattori became interested in Japanese history because of her teacher's words.

令和 8 年度 東京都立産業技術高等専門学校入学者選抜学力検査

読み上げ台本

(最初に 2 秒の間)

『リスニングテストを行う前に、リスニング問題の印刷の確認を行います。リスニング問題は 1 ページから 2 ページに印刷してあります。問題が印刷されていない場合や、不鮮明な場合には申し出てください。』

(5 秒の間)

『これから放送によるリスニングテストを行います。問題用紙の 1 ページを開いてください。問題は第 1 部と第 2 部に分かれています。第 1 部では、対話とその内容についての質問が、それぞれ 2 度ずつ読まれます。その質問に対する最も適切な答えを選んで、記号で答えなさい。なお、放送中に問題用紙の余白にメモをとってもかまいません。では、第 1 部を始めます。』

(3 秒の間)

[*Man*] [No.1]

(1 秒の間)

Woman: Excuse me. Do you have four concert tickets for tonight?

Man: I'm sorry. Only two tickets for tonight.

Woman: How about tomorrow night? If you have four, I'll buy them.

Man: Yes, we have them.

(2 秒の間)

[*Woman*] Question. What is the customer going to do next?

(5 秒の間)

『繰り返します。』

(2 秒の間)

([No.1] の繰り返し)

(2 秒の間)

[*Woman*] Question. What is the customer going to do next?

(10 秒の間)

[*Woman*] [No.2]

(1 秒の間)

Woman: Are you ready to order, Tom?

Man: I'll have a cup of coffee with sugar and milk. And you, Meg?

Woman: I would like one with sugar.

Man: Well, let's order.

(2 秒の間)

[*Man*] Question. What drink does Meg want?

(5 秒の間)

『繰り返します。』

(2 秒の間)

([No.2] の繰り返し)

(2 秒の間)

[*Man*] Question. What drink does Meg want?

(10 秒の間)

[*Man*] [No.3]

(1 秒の間)

Girl: Tom, do you still have my notebook?

Boy: I've already given it back to you.

Girl: Really? I have to show it to my teacher, but I can't find it.

Boy: Emily, you put it in your bag yesterday.

(2 秒の間)

[*Woman*] Question. Why does the girl need her notebook?

(5 秒の間)

『繰り返します。』

(2 秒の間)

([No.3] の繰り返し)

(2 秒の間)

[*Woman*] Question. Why does the girl need her notebook?

(10 秒の間)

[*Woman*] [No.4]

(1 秒の間)

Man: Mary, I heard you had a dog of the same kind as my dog.

Woman: Yes, it is white and one year old, Ken.

Man: My dog is the same age and has brown hair.

Woman: Then, why don't we go to the park with our dogs this weekend?

(2 秒の間)

[*Woman*] Question. What are the two dogs like?

(5 秒の間)

『繰り返します。』

(2 秒の間)

([No.4] の繰り返し)

(2 秒の間)

[*Woman*] Question. What are the two dogs like?

(10 秒の間)

[*Man*] [No.5]

(1 秒の間)

Woman: Mike, are the reports for the meeting ready?

Man: No, I haven't finished yet.

Woman: Is there something wrong?

Man: My computer hasn't worked well since this morning.

(2 秒の間)

[*Man*] Question. What is the problem?

(5 秒の間)

『繰り返します。』

(2 秒の間)

([No.5] の繰り返し)

(2 秒の間)

[*Man*] Question. What is the problem?

(10 秒の間)

『これで第 1 部を終わります。』

(5 秒の間)

『では、第2部に入ります。第2部は、質問や発言に対して、適切な応答を選ぶ問題です。質問や発言は1文のみで、2度ずつ読まれます。それに対する応答として、最も適切なものを選んで、記号で答えなさい。なお、放送中に問題用紙の余白にメモをとってもかまいません。では、第2部を始めます。』

(3秒の間)

[*Woman*] [**No.1**]

(1秒の間)

Man: I am going to go skiing in Hokkaido with my family.

(5秒の間)

『繰り返します。』

(2秒の間)

([No.1] の繰り返し)

(10秒の間)

[*Man*] [**No.2**]

(1秒の間)

Woman: Where is the subway station?

(5秒の間)

『繰り返します。』

(2秒の間)

([No.2] の繰り返し)

(10秒の間)

[*Woman*] [**No.3**]

(1秒の間)

Man: How did you come here?

(5秒の間)

『繰り返します。』

(2秒の間)

([No. 3] の繰り返し)

(10秒の間)

[*Man*] [**No. 4**]

(1 秒の間)

Woman: The photo of a castle on the wall is very beautiful.

(5 秒の間)

『繰り返します。』

(2 秒の間)

([No. 4] の繰り返し)

(10 秒の間)

[*Woman*] [**No. 5**]

(1 秒の間)

Man: I'm looking for my umbrella.

(5 秒の間)

『繰り返します。』

(2 秒の間)

([No. 5] の繰り返し)

(10 秒の間)

『これで放送による問題を終わります。』