

英 語 (45分)

1 この問題は聞き取り検査です。放送を聞いて聞いに答えなさい。

イギリスサイエンスカレッジ受業体験プログラムに参加した隆 (Takashi), 希 (Nozomi), 俊男 (Toshio)の3人の生徒が感想を話しています。①では隆 (Takashi), 希 (Nozomi)の感想を聞き, (1)～(3)の答えとして最も適切なものを次のア～エから一つ選び, 記号で答えなさい。次に②では俊男 (Toshio)の感想を聞き, 問題に答えなさい。感想は, 隆 (Takashi)が2回, 希 (Nozomi)が2回, 俊男 (Toshio)が2回の順で読みられます。

①(1) What did Takashi need when he tried to talk about science with high school students in England?

- ア Many ways to make English food.
- イ More English words about science.
- ウ Different words to use to talk with his host family.
- エ Simple things which he learns in Japan.

(2) As useful things in the future life, what did Nozomi and English students think about?

- ア Very small parts of machines we use when we make airplanes.
- イ Very powerful things to fly airplanes faster.
- ウ Very light and strong things we use when we make cars.
- エ Very large things to make machines larger.

(3) Why does Nozomi want to be an engineer?

- ア Because she met a famous engineer in England.
- イ Because she thought that studying science in England was interesting.
- ウ Because she likes to give a presentation in front of many people.
- エ Because she wants to make more useful things in the future life.

②以下の英文はToshioの感想を要約したものである。空所 (　あ　)～(　う　)に適切な英語1語を入れなさい。

He learned a very important thing in the Science College Program. When he could not do (　あ　) very well, he had to (　い　) it again in (　う　) way.

2

今春、高校に進学する久美子 (Kumiko) さんとその高校に在学している幼なじみの美智子 (Michiko) さんの制服 (a school uniform) に関する会話を読んで、美智子さんの主張とその理由を二つ以上挙げて、40語以上50語以内の英語でまとめなさい。2文以上になつてもかまいません。「、」「。」「、」「。」「、」「。」などの符号は語数には入れません。また、「don't」などの短縮形は1語とします。

美智子：高校入学おめでとう。あこがれだった高校に入れてよかったですね。

久美子：ありがとうございます。高校では勉強はもちろんいろいろなことをやってみたいと思っています。それから制服を着ることがとても楽しみなの。

美智子：うへん。私は制服は必要ないと思っているわ。だって卒業したら着ることがないのに、値段が高いからもつたないもの。

久美子：でも、毎日違う服を着るのは結構お金がかかるものよ。それに、高校生活はやるべきことがとても多くて時間がないって言っていたじゃない。洋服を選ぶ時間がもつたいたいわ。

美智子：確かに。勉強や部活動。たくさんのことを行っているわ。

久美子：私の父の会社にも制服があって、制服に着替えた瞬間から頑張ろうという気持ちになると話していたわ。

美智子：なるほど。でも私は高校生だから自分のことは自分で決める自由が欲しいわ。

久美子：自分で決める自由は洋服だけではないはずよ。制服以外に自分で自分で決められることはたくさんあるんじゃないかな。

3 ある日本人医師 (Lecturer : 講師) が医療系大学への進学をめざす高校生たちに対して、英語で行った講演会後の質疑応答の一部です。①～⑤に答えなさい。

Student A : Are there people who are suited for a doctor and people who are not?

Lecturer : In the world of medicine, you are going to meet a lot of people — from new born babies to old people of age over 100. They have their own families. They have many kinds of diseases. Many of them have experienced various jobs and lives, and in a hospital, all the staff are doing different kinds of jobs as a team. To your question, I say yes. If you feel stress among people, if you think that your own world is more important than others', and if you don't like (A), then you are not suited for this world.

Student B : I understand from your lecture today that your work is very hard both physically and mentally. When did you feel helpless most? Please tell me something about that.

Lecturer : A man at age 45. He had his family. He visited us because he had respiratory failure. After careful tests, we found that we could only slow down the progress of his disease by oxygen inhalation and medicine. In other words, lung transplant was the only way to (1) recover his health. However, there was (B) for a good donor at that time. This patient asked me the questions. "Why am I suffering from this disease?" "Why is it me?" "Why do I have to live longer when I can't live without the help of my family and the hospital staff?" To be concerned with sick people means that you cannot look away from these questions. Medicine can't answer (2) these 'whys'. I really felt helpless then. Several months later, however, a donor was found, and this patient was sent to another doctor and successfully had the operation.

Student C : When do you find a reason for doing this job?

Lecturer : A woman at age 26. She visited us because she was suffering from palpitation and could not have enough sleep. We found that she was suffering from a serious disease. She quickly got better, however, by taking medicine for it and she began to visit us on Monday. Several years later, she visited us with her fiancé. I asked him to make her happy. A few years later, we found that she was not going to have (C) and we started to give her treatments for this in 2013. In November in 2014, she had a baby. When I saw her smiles on her face, I felt that I was finally able to share happy feelings with her. When do I find a reason for doing this job? I really understood the real reason for it then.

Student D : I think your lecture today has (3) encouraged us all. Thank you so much. Would you please give us (4) some advice in studying?

Lecturer : I'd like to tell you something important — stop studying for yourself, and start studying for others. In the (D), other people will need you. You may say, when you hear these words, "My parents have always told me to study for myself to enter a good university, work for a famous company, and enjoy my life. To study for others? I have never heard such words in my life." When you study for yourself, its quality quickly declines. When you feel happy with your studies, you will lose the reason for them. However, when you study for others, and if you find social problems in your society, you will understand that you are needed in society. Your study, I know, will be harder than you think. However, I am sure that your learning will change your society.

(注) be suited for ~ に適している medicine 医学・薬物 physically 身体的に mentally 精神的に helpless 無力な respiratory failure 呼吸器不全 oxygen inhalation 酸素吸入 lung transplant 肺移植

donor 器官提供者 be concerned with ~ ～と関わる successfully 首尾よく operation 手術 palpitation 心拍

treatment 治療 quality 質 decline 低下する society 社会

① 空所 (A) ~ (D) を補うのに最も適切なものを次のア～エから一つ選び、記号で答えなさい。ただし、同じ記号を繰り返し答えてはいけません。
ア a baby イ near future ウ no hope エ people

② 下線部(1), (3)とほぼ同じ意味になるものを次のア～エから一つ選び、記号で答えなさい。

- (1) ア make him well again イ make him angry again
エ make him sad again ジ make him lucky again
- (3) ア made us all kind イ given us all a chance to go to a university
エ made us all helpless ジ given hope to us all

③ 下線部(2)の内容を三つ日本語で説明しなさい。

④ 下線部(4)の内容を 15 字以上 25 字以内の日本語で簡潔に説明しなさい。ただし、「、」「。」も語数に数えます。

- ⑤ 問④の助言内容に関する理由を次のようにまとめた。空所 (　あ　) ~ (　う　) に本文にある適切な英語1語を入れなさい。
If you study like this, you will not (　あ　) a reason for your studies and your studies will make good progress. You will (　い　) that you are needed in society. And you can (　う　) your society by learning more, too.

4 英文を読んで①～④に答えなさい。

Have you ever heard about “a nurse crop”? “Nurse” means taking care of something. “A crop” means a plant grown by farmers and eaten by people. So “nurse crops” are plants which help other plants in the same field grow and are eaten by us. How do they help other plants? Nurse crops grow over other plants just like a roof. They give shades to other plants and protect plants from getting too much (A). They usually grow tall and grow densely, so they can also protect other plants from the strong (B).

Some farmers think they should use nurse crops. First, they are good to protect other plants grown by farmers. Second, farmers can gather nurse crops and sell them. Third, nurse crops cover the soil and stop rain or wind from damaging it. Finally, nurse crops can block some weeds from growing, so farmers don't have to use a lot of chemicals. (1)These two are very important. Farmers have to keep their farmland good to use every year or several times in a year.

Other farmers don't think it is good to use nurse crops. Why? Farmers have to be very careful about the right time to gather them. If farmers don't cut a nurse crop at the right time, the nurse crop will cover the other plant and get all the necessary sunlight. It will stop the other plant from growing well. This is one reason. They have another reason. Growing different kinds of plants in the same field is bad to grow good plants to sell. There is an old saying, “If you run after two hares, you will catch neither.” If farmers carefully grow one plant, they can gather more and can get better ones, so they can get more money.

Though the name “a nurse crop” is not so popular, growing different plants together in the same farmland has a long history. It is popular in many villages in African countries, because it has (2)some good points. Think about insects damaging plants. For example, cabbage butterflies love to eat cabbages when they are caterpillars. If you grow only cabbages, they have a lot of food and they don't have other insects which change their life in a bad way. So your farmland will be a wonderful place for the caterpillars. Think about soil. If you grow only cabbages, they want the same nutrients in the soil. Soon there are not enough nutrients which they need. Think about weeds. It is impossible to clear all the weeds from your field. If you want to clean up the field, you have to work long hours, or you have to use some chemicals. You should think in a different way. If you cannot clear all the weeds from your field, it is better to grow different plants which are more useful than weeds.

So, what do you think about “nurse crops” or growing different plants together? In nature, plants seem to fight against each other to live, but they actually help each other.

(注) farmer 農家 roof 屋根 shade 隱 densely 密集して soil 土壤 damage～ ~に害を与える weed 雜草
chemical 薬品 saying ことわざ hare ウサギ neither どちらも~ない insect 昆虫 cabbage キャベツ
butterfly 蝶 caterpillar 青虫 nutrient 栄養 clear～ ~を取り除く

① (A) と (B) に入る最も適切なものを次のア～カからそれぞれ選び、記号で答えなさい。
ア rain イ sunlight ウ air エ wind オ animals カ birds

② 下線部(1)が指している英文と同じ段落から二つ選び、それぞれの英文の最初と最後の2語を答えなさい。ただし、「」や「。」も語数に数えず解答に含めないこと。

③ 次は“nurse crops”を利用するることについてまとめた表の一部です。(ア), (イ) に入る日本語を20字以内でまとめなさい。ただし、「」や「。」も語数に数えます。

時期	良い点	悪い点
栽培期	育てたい植物を守る	育ちすぎると(ア)
収穫期	二種類の作物を収穫できる	一種類を収穫するより(イ)

④ 下線部(2)の具体的な内容として正しいものを次のア～カの英文からすべて選び、記号で答えなさい。

ア Insects damaging plants like butterflies can eat not only cabbages but also other plants when they are caterpillars.

イ Some kinds of insects coming to eat other plants make the life of other bad insects harder.

ウ Different plants need different nutrients, so only one kind of nutrient in the soil of the farm is not lost.

エ The same plants need the same nutrients, so we have to use chemicals to get back those nutrients.

オ When weeds are not taken away from the farmland and grow well, they also become useful plants.

カ It becomes easier for farmers to fight against weeds if they grow more useful plants than weeds.