

2024年度

英語

注 意

1. 監督者の合図があるまでは問題冊子と解答用紙を開かないでください。
2. 別紙の解答用紙は、マーク用解答用紙(1)と記述用解答用紙(2)とに分かれています。指定された解答欄をまちがえないように注意してください。
3. 解答用紙(1)は直接コンピューターにかけますので、折りまげたり、よごしたりしないでください。また、枠で囲まれた部分以外には記入しないでください。
4. 解答用紙(1)にマークするときは該当する○にはっきりとマークしてください。

マークのしかた (良い例) ●
(悪い例) ⊙ ⊗ ⊖ ⊗

(万年筆、ボールペンなどは使用してはいけません)

5. 解答用紙(1)に誤ってマークした場合には、消しゴムで跡が残らないようにていねいに消し、消しかすをきれいに払ってください。
6. 試験開始後、解答用紙(1)には、氏名、受験番号を記入し、さらにその受験番号をマークしてください。なお、受験番号を記入するときには解答用紙(1)の〔**受験番号記入上の注意**〕をよく読んで、まちがいのないようにしてください。

解答用紙(2)には、氏名、受験番号を記入してください。

7. 試験問題はこの冊子の1～8ページに記載されています。

問題冊子の余白部分は、メモとして利用して構いません。

各問題はほぼ同じ配点になっています。それを念頭に時間配分してください。

8. 試験終了後、この問題冊子は持ち帰ってください。

- 1 次の文章を読み、設問(a)～(e)にもっとも適切なものを1～4の中から1つ選びなさい。

In a laboratory full of machines, a harp seal* with pink hair looks up and lets out a loving sound to the person gently touching its head. This is Paro, one of the world's most successful therapy robots. "I came up with the idea for a pet robot because I thought people would welcome machines that do more than just housework," says its creator, Takanori Shibata.

Paro's body, whiskers*, and nose have sensors. Using AI, Paro can recognize its surroundings and make sounds when touched. It can also remember its nicknames and react to them when it is spoken to. After Paro is kept in someone's home for long enough, it can even develop its own habits.

If that sounds more like a pet than a robot, that is because Paro was designed to make dementia* patients feel calm and happy. Research shows that when dementia patients hold and talk to Paro, their symptoms tend to become milder — benefits similar to animal therapy. One study showed that doctors were able to reduce the amount of medicine given to patients by 30 percent after Paro reduced the patients' anxiety. Moreover, the robot's effects lasted more than two hours longer than those of the medicine patients were previously taking.

Although more than 7,000 robots are now available at hospitals and care homes across some 30 countries, this remarkable therapy robot was not an immediate success. When Shibata began his Paro project in 1993, he could not get funding in Japan, so he started working on the project in the United States. There, animal therapy had been a subject of formal academic research for three decades, and Shibata soon learned that this type of therapy had been used to help everyone from cancer patients to children with behavior problems.

Shibata created three robot models, in the shape of a dog, a cat, and a seal,

which he gave to U.S. college students to try out. The students were at first excited about the dog and cat, but most of them ended up ranking those models lower than the seal. For some students, the reason seemed cultural. They knew less about the seal, so they had fewer expectations.

After the first version of Paro was completed in 1998, many improvements were made. By the eighth version, the robot was ready for mass production. The latest version, the ninth, is still not cheap. It costs 450,000 yen in Japan and nearly twice as much outside Japan.

But the benefits have made the high cost of Paro worth it. While real animals are often not allowed into hospitals and care homes, Paro can stay in these places because its hair is antimicrobial*. Paro can also go anywhere safely. Eighty robots were sent to evacuation centers after the 2011 Great East Japan Earthquake in order to comfort survivors.

Adapted from: Koizumi, H. (December 16, 2022). This adorable robot therapy seal helps relieve anxiety, stress. The Asahi Shimbun Asia & Japan Watch Retrieved from <https://www.asahi.com/ajw/articles/14781334>
承諾番号24-1008
※朝日新聞に無断で転載することを禁じます。

〔注〕 harp seal タテゴトアザラシ whisker ひげ
dementia 認知症 antimicrobial 抗菌加工の

(a) What is the main topic of this passage?

1. animal therapy
2. a robot researcher
3. a therapy robot
4. dementia research

- (b) Which of these would be most difficult for Paro to do?
- 1 . check for diseases
 - 2 . develop habits
 - 3 . make people relax
 - 4 . respond to its name
- (c) What did the research find about Paro's effects on people suffering from dementia?
- 1 . Paro's effects are nothing like the effects of animal therapy.
 - 2 . Paro's effects last longer than their medicine's effects.
 - 3 . Patients who spend time with Paro feel more excited.
 - 4 . Patients who spend time with Paro need more medicine.
- (d) According to the passage, which statement is true?
- 1 . Animal therapy was common in the United States before Japan.
 - 2 . Shibata chose the seal shape because it was the cheapest to develop.
 - 3 . Shibata started the project because he got money from a Japanese university.
 - 4 . Students were given dogs and cats for cultural reasons.
- (e) According to the passage, which statement is true about Paro?
- 1 . It has gone through more than a dozen versions since the original model.
 - 2 . It took more than ten years to develop the first version.
 - 3 . The current model has special hair so that it can stay in hospitals.
 - 4 . The latest model is sold at lower prices outside Japan.

- 2 次の対話文を読み、設問(a)～(e)にもっとも適切なものを1～4の中から1つ選びなさい。

Two friends are talking.

Joseph: Mina, will you join me in setting up a community project?

Mina: What do you mean?

Joseph: I've been dealing with food allergies since I was a baby, and now I want to help others who have the same problem. Food that doesn't cause allergic reactions is too expensive for most people, and it's difficult to find.

Mina: Wait! Are you suggesting that we start selling allergy-friendly cookies?

Joseph: No, not at all. I want to deliver food to the local food bank that won't cause allergic reactions. This way, needy people with food allergies in our community can get access to safe food.

Mina: Sounds great, but how can we make it happen?

Joseph: Well, we can reach out to allergy-free food companies for cash donations. We can also create our own website for donations so that we can buy safe food for the food bank.

Mina: How about giving talks at the library to educate people about labels and ingredients? And maybe hand out allergy-friendly recipes? I love your idea. I'm in.

Joseph: Fantastic! Let's make a detailed plan. Can we talk again tomorrow afternoon?

Mina: Sure.

Joseph: Just imagine fewer people getting out of breath and dealing with red skin and swollen eyes! And everyone will finally be able to eat food that suits their special dietary needs.

Mina: Joseph, your empathy for people in need is really impressive.

Thanks for letting me join your project!

(a) What is the main topic of the conversation?

- 1 . Discussing what a good community project is.
- 2 . Educating people about the effects of food allergies.
- 3 . Helping people with allergies to get safe food.
- 4 . Raising money for people who suffer from hunger.

(b) Based on the conversation, which of these is true?

- 1 . Allergy-free food companies always make donations to food banks.
- 2 . Allergy-free food is too expensive for low-income people.
- 3 . High-income people have fewer food allergies than low-income people.
- 4 . Neither Joseph nor Mina suffers from food allergies.

(c) How will Joseph and Mina pay for their project?

- 1 . Ask for donations from food companies.
- 2 . Give talks on allergy problems at the library.
- 3 . Sell allergy-friendly cookies.
- 4 . Use the food bank's website.

(d) Joseph and Mina do NOT plan to _____.

- 1 . educate people about the food they eat
- 2 . raise money for allergy-free food
- 3 . sell allergy-free food to those in need
- 4 . share their recipes for safe food

(e) What does Mina think about Joseph?

- 1 . Mina admires his desire to help others.
- 2 . Mina does not seem interested in his ideas.
- 3 . Mina is not sure if he will carry out his project.
- 4 . Mina thinks his plan is not realistic.

- 3** 機械翻訳について以下の文章は何と述べているか、150字～180字の日本語でまとめなさい。解答には(1)機械翻訳の変化、(2)機械翻訳を使いこなすために必要なこと、(3)機械翻訳の発展に対する懸念について、の3点を必ず含めること。

Grammar and vocabulary are no longer the only important things in learning a foreign language. With the advancement of machine translation, efficient use of this new technology has become an important part of language learning.

A couple of decades ago, machine translation was often the source of jokes among those fluent in foreign languages. They would translate some phrases using a computer and enjoy a good laugh when the results made no sense in their native language. But the great improvement of machine translation has eliminated such jokes. Even if you have no confidence in your language skills, you can always count on machine translation, for example, when you must deal with emails in a foreign language at work.

Yet, no matter how high the quality of machine translation becomes, in order to use it well, you need to master the language to a certain level. You need to be able to check the outcome of the machine translation, and you also need to adjust the input in your own language to get a good translation.

However, now that machine translation has become so advanced, it has become harder to stay motivated to learn languages. This means that eventually fewer people will reach the minimum level of language ability required to use machine translation well.

- 4 次のテーマで100～150語程度のエッセーを，具体例を挙げながら英語で書きなさい。

What advice would you give to an international student coming to study in Japan for the first time?