

# 基礎素養検査

「英語」、「国語」、「数学」の3科目から2科目を選択し、解答すること。ただし、国際共創学部に出願した者は、「英語」を含む2科目を解答すること。

## 注 意 事 項

1. 試験開始の合図があるまで問題冊子を開かないこと。  
ただし、マーク記入上の注意は裏表紙にあるので、問題冊子を裏返して読んでおくこと。
2. 監督者の指示に従い、別紙解答用紙の所定欄に氏名、受験番号を記入すること。さらに受験番号の下マーク欄に受験番号をマークすること。
3. 解答する科目を2つ選び（国際共創学部は「英語」必須）、解答用紙の解答科目にマークすること。マークされていない場合、3科目以上にマークされている場合、または3科目以上を解答した場合は採点の対象にならないので注意すること。  
解答用紙は表が「数学」、裏が「英語」、「国語」となっている。
4. 解答はすべて、解答用紙の解答欄にマークすること。
5. 「数学」において分数形で解答が求められているときは、既約分数で答えること。根号を含む形で解答が求められているときは、根号の中に現われる自然数が最小となる形で答えること。小数で解答が求められているときは、指定された桁数の1つ下の桁を四捨五入し、必要に応じて、指定された桁まで⑩をマークすること。
6. 試験時間は90分。出題科目、ページ数はつぎのとおり。

出題科目	ページ
英 語	1 ～ 10
国 語	11 ～ 27
数 学	29 ～ 35

※裏表紙に続く。

# 英 語

第1問 次の英文の空欄にあてはまる最も適切なものを一つ選べ。

1 His English speaking skills are much superior ( ).  
① to me      ② than me      ③ to mine      ④ than mine

2 Please submit your report ( ) two weeks.  
① to      ② by      ③ before      ④ within

3 Members of that committee ( ) education policy every month.  
① discuss      ② discuss about  
③ discuss with      ④ discuss on

4 Ms. Kato heard ( ) by the professor.  
① her name called      ② call her name  
③ her name calling      ④ called her name

5 ( ) his contributions, our team won the first prize.  
① According to      ② Thanks to  
③ In addition to      ④ As to

6 ( ) his money, Jack could not pay for dinner yesterday.  
① Lost      ② Having lost  
③ Being lost      ④ Lose

7 Most of the furniture (        ) to the customer.  
① were shipped                      ② was shipped  
③ have been shipped              ④ ship

8 (        ) yourself to any drinks on the table.  
① Help              ② Assist              ③ Support              ④ Rescue

9 Please inform (        ) any change of your address.  
① of you              ② of us              ③ you of              ④ us of

10 (        ) a great painter, Leonardo da Vinci was also a great scientist.  
① Because of                      ② Belonging to  
③ Besides being                  ④ Being familiar to

第2問 次の会話の空欄にあてはまる最も適切なものを一つ選べ。

11 A : I took your umbrella by mistake yesterday.

B : ( ). Thank you for telling me.

A : I'm sorry.

B : No problem.

- ① I can't believe you
- ② God bless you
- ③ I'm afraid to help you
- ④ I get the picture

12 A : Do you mind if I use your portable battery charger for my smartphone?

B : ( ). Here you are.

- ① Yes, I do
- ② No, be my guest
- ③ I'm sorry
- ④ I wish I could

13 A : I think if we only live in Japan, we don't have to learn English.

B : ( ), but it might help you in the future as the world becomes more globalized.

- ① It's no deal
- ② I see your point
- ③ You're wrong
- ④ It doesn't make sense

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A : Nice to meet you.

B : I'm happy to meet you, too. So, (        ) to Japan?

A : To learn about the traditional Japanese culture.

I'm going to stay in Japan for two years.

① why don't you take a trip

② how did you come

③ what brought you

④ which is unique

15

A : Would you like to come to our party tonight?

B : (        ).

A : Don't worry. I'll invite you next time.

① I'm afraid not

② Have fun

③ Yeah, let's

④ That is expected

第3問 次の(1), (2)の英文を読んで、空欄にあてはまる最も適切なものを一つ選べ。

(1) **Oceans of Plastic**

We use plastic every day, from the moment we wake up to when we switch off our lights at night. Our day is packed with plastic. It is woven into our clothes and wrapped around our food. We play on plastic and we even tie our shoelaces with plastic. There is no 16 that plastic is a part of our lives. Plastic may be 17, but it is affecting our planet. Tiny pieces of plastic are now found in the air, water and oceans.

How many stars can you see on a clear night in the sky? It's hard to 18 them all, with over 1 trillion stars out there! Scientists estimate that there are more pieces of plastic in the ocean than 19 stars in the Milky Way. If we do nothing, by 2050 there will be more pieces of plastic by weight, than fish, in the ocean!

Not all plastics are bad; we need plastics for many purposes including medical treatments. These plastics are designed for single use and can't be reused safely. The problem with single-use plastic is 20 is being made and how we choose to dispose of it.

【出典：Tracey Gray, *Oceans of Plastic—Understanding and solving a Pollution Problem*, CSIRO Publishing, Victoria, Australia, 2022年, 一部改変】

- |  |             |              |             |               |
|--|-------------|--------------|-------------|---------------|
| <span style="border: 1px solid black; padding: 0 5px;">16</span> | ① evidence  | ② question   | ③ answer    | ④ opportunity |
| <span style="border: 1px solid black; padding: 0 5px;">17</span> | ① fantastic | ② bad        | ③ dangerous | ④ useless     |
| <span style="border: 1px solid black; padding: 0 5px;">18</span> | ① shine     | ② produce    | ③ clean     | ④ count       |
| <span style="border: 1px solid black; padding: 0 5px;">19</span> | ① visible   | ② artificial | ③ universal | ④ sunny       |
| <span style="border: 1px solid black; padding: 0 5px;">20</span> | ① how often | ② how far    | ③ how much  | ④ how long    |

## (2) Technology Today

Technology today has changed the way we do just about 21 — from shopping and researching to getting the news and accessing healthcare. Those born before 1995 might remember having to read a map for directions or having to wait to buy a newly released vinyl record\*<sup>1</sup>, cassette tape, or CD. If you wanted to catch up with a 22, you had to write a letter or call on the phone. The world 23 in 1995 when the Internet was commercialized, as it has allowed everyday users access to new information and new ways of life. Today, there are over 3.5 billion Internet users worldwide with 88 percent of Americans having utilized the Internet at least once in the last year.

Generation Z\*<sup>2</sup> has never known a world 24 the Internet. For most of their lives, this generation has lived life through not just one screen, but in some cases, up to five screens. These young people have had access to smartphones, tablets, and laptops nearly their entire lives. Even 25 forms of media, such as radio and television, have since evolved into streaming services where nearly any show or movie can be accessed 24 hours a day.

【注】 \* 1. vinyl record レコード (ビニール盤)

\* 2. Generation Z 1990年代半ばから2010年代序盤に生まれた世代

【出典：Corey Seemiller and Meghan Grace, *Generation Z: A Century in the Making*, Routledge, New York, USA, 2019年, 一部改変】

<span style="border: 1px solid black; padding: 0 5px;">21</span>	① whenever	② nothing	③ altogether	④ everything
<span style="border: 1px solid black; padding: 0 5px;">22</span>	① technology	② world	③ generation	④ friend
<span style="border: 1px solid black; padding: 0 5px;">23</span>	① stayed	② ended	③ changed	④ shocked
<span style="border: 1px solid black; padding: 0 5px;">24</span>	① besides		② without	
	③ because of		④ depending on	
<span style="border: 1px solid black; padding: 0 5px;">25</span>	① older	② newer	③ online	④ younger

第4問 次の英文を読んで、以下の問いに答えよ。

Companies in Japan have been increasing their use of technology to reduce food waste and cut costs since the COVID-19 crisis. They are using artificial intelligence, or AI, to help those efforts.

Government information from Japan shows that it throws away more than 6 million tons of food waste each year. The cost to 26 this food waste is estimated at \$19 billion. This means Japan wastes more food for each of its citizens than any other Asian country. For this reason, the Japanese government has created a new law. Its goal is to cut the costs of food waste by 50 percent from levels in 2000. The government wants to reach this goal by 2030 and it is urging<sup>(a)</sup> companies to find ways to solve the problem.

Convenience store operator Lawson is now using AI from the U.S. company DataRobot. DataRobot uses technology to find ways to make supply meet demand. In places where this program has started, Lawson aims to reduce having too much of a product by 30 percent. The company has similar<sup>(b)</sup> plans to the Japanese government. It wants to cut its food waste by 50 percent from 2018 levels by the year 2030. The second biggest cost for the store owners is disposal of food waste. Its highest cost is labor.

Drink maker Suntory Beverage & Food is 27 with an AI product from another Japanese company, Fujitsu. Suntory wants to know if products such as bottles of tea and water have been damaged in shipping. Until now, that has been done by human labor and takes a long time. With new AI technology, Suntory hopes to learn more about how its products get damaged while being sent to stores and how many will need to be returned for replacement. Suntory aims to reduce the return of goods by 30 to 50 percent and cut the cost of food waste. The



goal of these efforts is to develop a system that can be shared with other food makers and the companies that transport their products.

In 2014, Tatsuya Sekito 28 Kuradashi, an internet-based business that sells surplus<sup>\*1</sup> food at a discount. He started the company while working for a Japanese company that did business in China. There he saw huge amounts of waste from food producers. With about 800 companies, the online network is doing very well. The reason is partly because of an increase in demand for low-priced foods. The companies get shoppers by offering low prices and a chance to donate<sup>\*2</sup> to worthwhile causes<sup>\*3</sup> and social issues. That is not bad for business either. Membership numbers jumped to 180,000 in 2021 from 80,000 in 2019.

Other businesses have joined forces with food companies in developing new technologies to cut food waste. NEC Corporation is using AI that estimates demand based on several 29, such as the weather, the time of year, and people's buying behavior. NEC has used AI with some major retailers and food makers. It has helped them reduce costs by 15 to 75 percent. A top official at NEC said that reducing food waste is not the company's final goal. Ryoichi Morita said he hopes reducing waste will help solve other business problems. These, Morita said, include reducing costs, increasing supply-and-demand efficiency, and fixing labor shortages.

【注】 \* 1. surplus 余剰

\* 2. donate 寄付する

\* 3. worthwhile causes 慈善団体

【出典：コスモピアeステーション編集部編『VOAで聞き読みSDGs 英語ニュース入門』コスモピア株式会社，2021年，一部改変】

問1 空欄  ・  ・  ・  にあてはまる最も適切なものを一つ選べ。

- |                                 |                 |          |             |          |
|---------------------------------|-----------------|----------|-------------|----------|
| <input type="text" value="26"/> | ① increase      | ② handle | ③ produce   | ④ supply |
| <input type="text" value="27"/> | ① combining     |          | ② settling  |          |
|                                 | ③ experimenting |          | ④ competing |          |
| <input type="text" value="28"/> | ① sold          |          | ② closed    |          |
|                                 | ③ ended         |          | ④ launched  |          |
| <input type="text" value="29"/> | ① conditions    |          | ② markets   |          |
|                                 | ③ prices        |          | ④ programs  |          |

問2 下線部(a)～(d)に最も意味の近いものを一つ選べ。

- |                                 |     |                |                |
|---------------------------------|-----|----------------|----------------|
| <input type="text" value="30"/> | (a) | ① arguing      | ② resisting    |
|                                 |     | ③ encouraging  | ④ forbidding   |
| <input type="text" value="31"/> | (b) | ① related      | ② different    |
|                                 |     | ③ complicated  | ④ fantasy      |
| <input type="text" value="32"/> | (c) | ① selling      | ② providing    |
|                                 |     | ③ transferring | ④ reorganizing |
| <input type="text" value="33"/> | (d) | ① making       | ② ignoring     |
|                                 |     | ③ counting     | ④ solving      |

問3 本文の内容として最も適切なものを一つ選べ。

- ① Convenience stores use AI to find ways to throw away food.
- ② Japan is the country which wastes the most food for each of its citizens in Asia.
- ③ The Japanese government made a new law to ban certain AI applications.
- ④ The highest cost for convenience store owners is using AI from the U.S. company.

問4 本文の内容として最も適切なものを一つ選べ。

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- ① Japanese people donate low-priced foods to internet businesses.
- ② It is impossible for AI to estimate food demand based on the weather, the time of year, and people's buying behavior.
- ③ Reducing waste is expected to be useful in solving other business problems.
- ④ Reducing costs by 15 to 75 percent will be NEC's final goal.

問5 本文のタイトルとして最も適切なものを一つ選べ。

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- ① The Japanese Government's Goal of Reducing Food Waste
- ② Low-Priced Foods Cut the Cost of Labor
- ③ Using Robots for Shipping Food to Convenience Stores
- ④ Japanese Companies Use Technology to Fight Food Waste