

解答はすべて解答用紙にマークしなさい。

(I) 次の **1** ~ **12** の英文の () に入る最も適切な語句を、それぞれ下の①~④から一つずつ選びなさい。

1 The storm was smaller () scale, but it had a much higher concentration of energy and wind speed than the previous one.

① among ② in ③ for ④ without

2 There is a pharmacist on hand 24 hours a day at the drugstore () your prescriptions.

① fill ② filled ③ to fill ④ to have filled

3 Cigarette butts are one of the top plastic items most frequently () on beaches.

① finds ② found ③ finding ④ to find

4 The oceans absorb about 40 percent of the CO₂ we produce and have a higher CO₂ concentration than () of the atmosphere.

① that ② one ③ it ④ them

5 Before female barnacle geese lay their eggs, the mated males and females remain together to defend their nesting sites from () pairs.

① all ② each ③ other ④ every

6 () data from a satellite tracking system, a team of wildlife biologists showed in 2019 that reindeer can travel more than 800 miles each year.

① Using ② Used ③ Being used ④ To be using

7 Increasing levels of CO₂ emissions () closely because of their impact on global warming.

① monitor ② monitored
③ are monitoring ④ are being monitored

8 The declining population of elephants shows how important () to preserve natural habitats and protect the diverse wildlife on our planet.

① some are ② it is ③ these are ④ that is

9 Ground temperature and elevation both affect the efficiency of solar panel energy generation and the ease () solar panels can be installed.

① whose ② how ③ that ④ with which

10 Some animal species are likely to go extinct () the cause of their population decline is identified and corrected.

① because ② that ③ once ④ unless

11 The news that a new species of dinosaur was uncovered in a remote desert astonished many researchers who thought the area () thoroughly explored.

① has been ② is ③ had been ④ will be

12 The wooden parts the sculptor is currently working on () together to form a statue of a dragon.

① come ② comes ③ coming ④ to come

(II) 次の(1)～(5)の日本語の意味を表すように英文を作った場合、13～27に入る最も適切な語を、それぞれ下の①～⑦から一つずつ選びなさい。

(1) 動物園は、ゾウが育てられるのに完璧な場所だろうか。

Is a zoo the perfect 13 14 15 in?

① be ② place ③ brought ④ elephants ⑤ for ⑥ to ⑦ up

(2) イッカクのような北アメリカの大型動物のことを、どうして私たちはほとんど全く知らないのだろう。

How can we 16 17 18 of North America, like sea unicorns?

① large ② little ③ about ④ know ⑤ the ⑥ creatures ⑦ so

(3) ヒトデは世界の漁業において混獲物として知られており、そのほとんどは少しも利用されずに処分されている。

Starfish are known as by-catch products in the global fishing industry, and most of them 19 20 21 utilization.

① any ② got ③ been ④ have ⑤ of ⑥ rid ⑦ without

(4) 第二次世界大戦後、電子顕微鏡が主要な研究現場で一般的になり、科学者が脳細胞をより詳細に研究できるようになった。

The electron microscope became common in major research settings after World War II, 22 23 24 more detail.

① brain ② in ③ enabling ④ cells ⑤ scientists ⑥ study ⑦ to

(5) その工場では、今年の生産量は15年前の3倍だが、利益は2倍にしかなっていない。

In the factory, this year's production 25 26 27 ago, whereas profits have only doubled.

① fifteen ② is ③ it ④ triple ⑤ years ⑥ was ⑦ what

(III) 次の28～32が自然な会話になるように、()に入る最も適切なものをそれぞれ下の①～④から一つずつ選びなさい。

28 A: Hi, Jane. How was the interview?

B: Well, not bad, I think.

A: I'm relieved to hear that. ()

B: No, we went three at a time.

① It was the second one, right?

② You did well, didn't you?

③ Were you interviewed alone?

④ Did you arrive in time?

29 A: Thank you for visiting us. What kind of bike are you looking for?

B: Hi. I'm interested in purchasing an off-road motorcycle.

A: I see. We have several models in store right now. ()

B: I'm planning somewhere around a million yen.

A: Great. Well, how about one of these new models?

B: Wow, these look great.

① What do you think of our budget?

② How much do you owe me?

③ What is your price range?

④ How much do you expect from them?

30 A: I'm having a party at my place next weekend. Do you want to come?

B: Absolutely! That sounds like fun. Who else is coming?

A: Ken, Mari and possibly Josh. It's more like a small get-together, really. I'm going to arrange some food for us, so we can just hang out.

B: Sounds great. Should I bring anything?

A: No, don't worry about it. I have everything covered.

B: Can I at least bring something sweet for dessert?

A: Well, () I'm sure that would be appreciated.

B: I'll do that, then. Thanks for inviting me.

① I'm not going to say no to that.

② I want you to know what I mean.

③ I'm hoping you are ready to hang out.

④ I won't accept what you mean.

31 A: Hey, Ben. What things do you miss about your hometown? You're from the countryside, aren't you?

B: Yeah, that's right. I guess the thing I miss the most is the smell of the wildflowers and... also the hills around our house. There's this little stream across from our house, where my dad and I always used to go fishing. I miss that place so much!

A: Sounds lovely! I guess you miss the atmosphere of all those birdsongs and babbling streams....

B: () It's a different world down there. I really miss just walking through the fields and feeling the breeze, you know, just listening to the sounds of nature.

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① How dare you!
② You wish.
③ Do you mind?
④ You bet!

32 A: Hi, Emily. I saw the article on your company in the newspaper. Nice picture of the CEO, Mr. Bailey.

B: Yes, it was a good shot. The reporting was basically accurate, but they got a couple of things wrong. First, they said that Mr. Bailey is worth 1.5 million dollars. Actually, it's 1.5 *billion*.

A: Yeah, I thought that figure sounded too low. ()

B: Well, they also reported that we were the seventh *largest* firm in our industry. But we're currently the *second* largest.

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① Why did this miswriting occur?
② What was the other mistake?
③ How did he report the figure?
④ Which company is the largest?

[IV] 次の英文の 33 に入る最も適切なものを下の①～④から一つ選びなさい。

Some animals live for long spans once thought impossible, others die off fast, and a handful appear to age hardly at all. The bowhead whale, for example, can survive more than 200 years despite the risk of predation, famine and disease. Scientists are trying to figure out how these ageless animals do it and 33 .

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① if their feeding habits are similar to that of the bowhead whale
② if they can increase the populations of other marine animals
③ if their longevity might hold any clues to help humans live longer
④ if it is possible to save the bowhead whale from its environmental risks

[V] 次の英文中の 34 ～ 36 に下の英文 ①～③を入れ、適切な文章にしなさい。

The world's largest recorded freshwater fish, a giant stingray, was caught in the Mekong River in Cambodia in 2022, according to scientists from the Southeast Asian nation and the United States. 34 35 36 The device sent data that they used for the following year's joint project.

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① However, the stingray captured by local fishermen near Stung Treng in northeastern Cambodia in 2022 measured almost four meters from snout to tail and weighed slightly under 300 kilograms, according to Wonders of the Mekong, a joint Cambodia-U.S. research project.
② The previous record for a freshwater fish was a 293-kg Mekong giant catfish discovered in Thailand in 2005.
③ The scientists inserted a tracking device near the fish's tail before releasing it.

〔VI〕 次の英文の内容に合致するものを下の①～④から一つ選びなさい。

Historically, Asian elephants ranged across Asia, including China, and as far west as the Euphrates River. Now an endangered species, Asian elephants hang on in parts of India, Sri Lanka, and Southeast Asia — only about five percent of their historical range.

Although precise numbers are hard to arrive at, there may be fewer than 50,000 wild Asian elephants left, including 30,000 in India. Researchers and conservationists agree that if the species is to survive, people and elephants need to live in harmony. However, there is still a long way to go.

From 2020 to 2022, people in Sri Lanka killed more than 1,100 elephants, and nearly 400 people died in encounters with elephants. In India, from 2018 to 2020, 300 elephants and 1,400 people died because of human-elephant conflict, a phenomenon that occurs when habitat loss forces both species into close contact, often leading to injuries or death.

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- ① Around five percent of wild Asian elephants are found in Southeast Asia.
- ② The number of Asian elephants in the wild may be less than 50,000.
- ③ In Sri Lanka, more people than elephants were killed from 2020 to 2022.
- ④ In India, 300 elephants died because of conflicts among themselves up to 2020.

〔VII〕 次の英文のタイトルとして最も適切なものを下の①～④から一つ選びなさい。

Animal species with a larger body size compared with other species in the same group are sometimes referred to as “megafauna.” These large-bodied species generally require large and complex habitats, reproduce at a later stage in life and have fewer offspring. Therefore, they are particularly at risk to changes in their environment.

In freshwater systems, megafauna are species that grow to more than 30 kilograms, such as Mekong giant catfish, river dolphins, otters, beavers and hippos. They are subject to intense human-induced threats, including overexploitation, and rapid population declines have been observed as a result. Mega-fishes are particularly vulnerable. Catches in the Mekong River basin between 2000 and 2015, for example, decreased for 78 percent of species, and declines were greater among medium- to large-bodied species. Large fishes are also heavily impacted by dam construction, which blocks their migratory routes to spawning and feeding grounds.

Large-scale, cross-border collaboration is required to effectively protect freshwater species, and some persistent conservation efforts have proved successful. The Eurasian beaver, for instance, has now been reintroduced into many countries from which it had disappeared, including Czechia, Estonia, Finland, Sweden and the U.K.

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- ① Successful Local Conservationists Assisting Megafauna Recovery
- ② The Unaffected Freshwater Ecosystems of Large Bodied Species
- ③ Challenges and Conservation Efforts for Freshwater Megafauna
- ④ The Stable Populations of Freshwater Mega-Fishes across Continents

Most of us use tires daily in one way or another, but we may not be aware that they add a lot to plastic pollution globally. As they rub against the road, tires throw off bits of synthetic rubber, which is an oil-based material like other plastics. Rain washes those plastic bits off the road and into streams. By one estimate, tires could account for as much as 28 percent of the microplastic waste reaching the ocean.

At first, rubber came only from trees. However, as more and more people started driving, the world needed more rubber than nature could give. Then, in 1909, German chemist Fritz Hofmann invented the first commercial synthetic rubber. Shortly after, it was used in car tires. By 1931, the U.S. chemical company DuPont had industrialized the manufacture of synthetic rubber.

Today, a tire consists of about 19 percent natural rubber and 24 percent synthetic rubber. The rest is made up of metals and other materials. Producing tires still has significant environmental impacts, ranging from continued deforestation to the climate-harming fossil fuels used to make synthetic rubbers to the assembly process. Modern car tires require about seven gallons of oil to make, while truck tires take 22 gallons.

The modern radial tire did not see a major redesign in decades, but lately there has been a push to develop more sustainable options. Researchers at the University of Minnesota, for example, recently found a way to produce a key ingredient in synthetic rubber using carbon-neutral sources such as trees, grass and corn. In 2018, the U.S. tire company Goodyear unveiled a concept tire made from recycled rubber that has living moss in it. This moss is supposed to soak up carbon dioxide.

None of that keeps a tire from shedding microplastics, however. Perhaps road surfaces could be made less rough without making them more slippery, or rainwater loaded with microplastics could be captured before it ends up in the ocean.

The tire-related pollution problem has been recognized only recently, so the search for solutions is just starting. But it is clear that there is a need for further research and increased awareness.

- ① Microplastics make up about 28 percent of the waste washed from roads and other surfaces into the ocean by rainwater.
- ② It was not until DuPont invented synthetic rubber that Fritz Hofmann industrialized the manufacturing process.
- ③ More than 50 percent of a modern tire is made up of materials other than natural and synthetic rubber.
- ④ Producing truck tires requires about three times more gallons of oil than producing ordinary car tires.
- ⑤ Despite the recent discovery of a key ingredient in synthetic rubber, the modern radial tire has not seen any sustainable options.
- ⑥ The concept tire made from recycled rubber will help to make road surfaces less rough without making them more slippery.
- ⑦ Researchers recently found a way to capture rainwater loaded with microplastics before it reaches the ocean.