

1.

テーマ 環境
語数 359 words
出題校 近畿大



Recently, researchers from the Union of Concerned Scientists in the U.S. released a report on how consumer behavior affects the environment. Their study showed that meat consumption is one of the main ways that humans can damage the environment, second only to the use of motor vehicles.

①-1

So, how can a simple thing like eating meat have a negative effect on the environment? The most important impact of meat production is through the use of water and land. Two thousand five hundred gallons of water are needed to produce one pound of beef, whereas only twenty gallons of water are needed to produce one pound of wheat.

①-2

(1) By producing crops instead of animals, we can make more efficient use of the land and water. One acre of farmland that is used for raising livestock can produce 250 pounds of beef. One acre of farmland used for crops can produce 40,000 pounds of potatoes, 30,000 pounds of carrots, or 50,000 pounds of tomatoes.

①-3

Furthermore, (2) farm animals add to the problem of global warming. All livestock animals such as cows, pigs, and sheep release methane* by expelling gas from their bodies. One cow can produce up to sixty liters of methane each day. Methane gas is the second most common greenhouse gas after carbon dioxide. Many environmental experts now believe that methane is more responsible for global warming than carbon dioxide. It is estimated that twenty-five percent of all methane released into the atmosphere comes from farm animals.

①-4

People are becoming aware of the benefits of switching to a vegetarian diet, not just for health reasons, but also because it plays a vital role in protecting the environment. (3) Some people go further, and eat a vegan diet, which excludes all products from animal sources, such as cheese, eggs, and milk. However, some nutritionists believe that a vegan diet can be deficient in some of the vitamins and minerals that our bodies need daily.

①-5

Today, many people are concerned about improving their health, and about protecting the environment. Switching to a vegetarian diet — or just eating less meat — is a good way to do both of these things at the same time.

①-6

* methane 「メタンガス」

1 第2段落の内容と一致するものを1つ選びなさい。

(近畿大)

- ① Eating beef has a harmful effect on water usage but not on land usage.
- ② Far less water is used in the production of wheat than in the production of meat.
- ③ Producing meat requires much water, but the amount of water needed is unknown.
- ④ The amount of water used in producing beef does not have a negative effect on the environment.

2 下線部 (1) を和訳しなさい。

3 下線部 (2) について、その理由は何か、日本語で答えなさい。

4 下線部 (3) について、その具体的な内容を本文に即して日本語で説明しなさい。

5 本文の内容と一致するものを2つ選びなさい。

(近畿大・改)

- ① The human consumption of meat is the second most damaging behavior on the environment.
- ② Altogether, 120,000 pounds of vegetables can be produced from one acre of land.
- ③ A greater amount of methane produced by livestock has led to decreased crop production.
- ④ Farm animals are responsible for nearly all of the methane released into the atmosphere.
- ⑤ A vegan diet is not just healthier, but is also better for the environment than a vegetable diet.
- ⑥ Not eating as much meat both protects the environment and improves people's health.



How much water do you think an ordinary person really needs to drink per day? ①-11
 Many people believe they are supposed to drink eight glasses of water a day, or about two liters. Why? Because that is what they have been told all their lives. But a recent report offers some different advice. Experts say people should obey their bodies; they should drink as much water as they feel like drinking.

The report says most healthy people meet their daily needs for liquid by ⁽¹⁾letting thirst be their guide. ①-12
 The report is from the Institute of Medicine, part of the American National Academies. This organization provides scientific and technical advice to the government and the public. The report contains some general suggestions. The experts say women should get about 2.7 liters of water daily. Men should get about 3.7 liters. But wait — in each case, those are more than eight glasses. There is one important difference. The report does not tell people how many glasses of water to drink. In fact, the experts say it may be impossible to know how many glasses are needed to meet these guidelines. This is because the daily water requirement can include the water content in foods.

⁽²⁾People do not get water only by forcing themselves to drink a set number of glasses of it per day. ①-13
 People also drink fruit juices and sodas or milk. Of course they may also drink coffee and tea. These all contain water. Yet some also contain caffeine. This causes the body to get rid of more water. But the writers of the report say this does not mean the body loses too much water. As you might expect, the Institute of Medicine says people usually need to drink more water when they are physically active. ⁽³⁾The same is true of those who live in hot climates. Depending on heat and activity, some people could drink two times as much water as others do.

All this, however, does not answer one question. No one seems sure why people have the idea that good health requires eight glasses of water daily. It may have started with ⁽⁴⁾a misunderstanding. ①-14
 In 1945, the American National Academy of Sciences published ⁽⁵⁾some guidelines. Its Food and Nutrition Board* said a good amount of water for most adults was 2.5 liters daily. This was based on an average of one milliliter for each kilocalorie of food eaten. But that was only part of what the board said. It also said that most of this amount is contained in prepared foods.

* Food and Nutrition Board 「食品栄養部会」

1 下線部 (1) の letting thirst be their guide を言いかえたものとして最も適切なものを、1つ選びなさい。

- ① asking advice from people who have recovered from thirst
- ② drinking as much water as their doctors advise them to do
- ③ judging from their natural feeling of how thirsty they are
- ④ drinking as much as possible while having a meal

2 下線部 (2) を和訳しなさい。

3 下線部 (3) の The same とは何を指しているか、日本語で答えなさい。

4 下線部 (4) の a misunderstanding の具体的な内容をまとめた記述にするために、2つの空所にそれぞれ15字以内の日本語を書きなさい。

公表された1日に必要な水分量の大半は

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 いたが、その水分量を

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

 だと誤解したこと。

5 下線部 (5) の some guidelines によれば、アメリカの成人が1日あたり2,500キロカロリーの食物を摂取した場合、通常どれくらいの量の水をとる必要があると推定されるか。次の()の中に入る適切な数字を答えなさい。

() liters

6 本文の内容と一致するものを1つ選びなさい。

- ① More and more people think that drinking eight glasses of water a day is too much to be good for their health.
- ② The experts in the report insisted that people need to drink more water than many people seem to understand.
- ③ The recent report implies the amount of water we should drink depends on the water amount in the food we eat.
- ④ It is beneficial for people to get a certain amount of caffeine, especially for people who drink few liquids.

3.

テーマ 言語
語数 442 words
出題校 宮城教育大



One interesting thing about languages is the way they change over time. In English, everything from spelling to vocabulary to pronunciation has gone through major changes over centuries. ⁽¹⁾In fact, to a modern speaker, the English of 1,000 years ago is like a foreign language!

The history of English dates back around 1,500 years. At that time, groups of Europeans invaded England, bringing their languages with them. These gradually developed into Old English. Later, in 1066, England was invaded by the Normans, from France. This caused the language to go through an important shift, leading to what we now call Middle English. Over the next 500 years, the language underwent further shifts, eventually evolving into Modern English. As the language has developed down to the present day, many things about it have changed.

Pronunciation is one of the most obvious areas of change. For example, in Old English, people said “hus” and “mus.” Now we say “house” and “mouse.” These days, there are also many differences in the way English is pronounced in the USA, the UK, Australia, and elsewhere. ⁽²⁾When people who speak the same language live in places separated by great distances, the language undergoes rapid changes in each place.

Spelling has also gone through interesting changes. For example, in Old English, people wrote “riht.” A “g” was added in Middle English, making the spelling “right.” Also, in the distant past, people did not always follow standards of spelling. In the 18th and 19th centuries, scholars like Noah Webster wrote dictionaries which made English spelling more consistent. But different standards were decided on in England and the USA, so some differences remain — for example, “color” vs. “colour.”

⁽³⁾Vocabulary changes happen even more quickly. English has grown by borrowing words from languages such as French, Spanish, and Arabic, to name a few. This often happens with food. “Tofu” and “sushi” are now standard English words, for example, and even “edamame” is listed in some dictionaries. ⁽⁴⁾Then there is slang, with new terms entering and leaving the language every year. Thirty years ago, you often heard people saying “groovy,” meaning “great.” These days, you rarely hear the word, except in old movies and on old TV shows.

Because English is spoken by so many people worldwide, it really is ⁽⁵⁾an exciting time for the language. Just as American and British versions are always changing,

so are versions spoken in Canada, Singapore, India, and elsewhere. At the same time, an entire new version of English is appearing on the Internet, with whole new slang expressions and writing styles. So in a way, learning English is a never-ending process, even for native speakers!

1 下線部 (1) のように言える理由を日本語で答えなさい。

2 下線部 (2) を和訳しなさい。

(宮城教育大)

3 下線部 (3) のようになる理由を日本語で説明しなさい。

4 下線部 (4) を和訳しなさい。

(宮城教育大)

5 下線部 (5) で an exciting time と著者が述べている理由を1つ選びなさい。

- ① English is spoken all over the world and that has made it easier than ever to communicate with people living in various places.
- ② English has gone through so many changes that even native speakers find it hard to understand new versions of English.
- ③ Different places in the world where English is spoken have produced new styles of English, which makes learning English even more interesting.
- ④ Throughout the world, English has a lot of new versions and sometimes that can confuse even native speakers.

6 本文の内容に合うものを1つ選びなさい。

- ① The invasion of England by the Normans in the 11th century helped to create so-called Modern English.
- ② English has changed a lot in pronunciation, but that is not so obvious as in the area of spelling.
- ③ In spite of the efforts of scholars who aimed at the uniformity of English spelling, there are some differences left between British English and American English.
- ④ The most important factor in creating new versions of English is the new terms and expressions found on the Internet.

4.

テーマ 科学
語数 327 words
出題校 東洋大



Some rich people are planning to upload their brains onto computers after they die, hoping that science will progress enough to make artificial intelligence possible. If you think this sounds like science fiction, take a look at the work of Martine Rothblatt, America's highest paid female CEO* and founder of GeoStar, a GPS* navigation company. Rothblatt also started Sirius Satellite Radio, a service allowing customers to hear nearly a thousand different radio stations online. In 2007 she created a simple copy of her partner's brain and uploaded it into a life-like robot known as ⁽¹⁾Bina48. That robot is able to have short ordinary conversations with humans. However, Bina48 is not yet able to sustain long conversations in ways that seem fully "human."

Rothblatt believes that within twenty years, "mind clones*" will be humanity's biggest invention. ⁽²⁾The concept of cloning human brains and placing them inside robotic bodies has been described in numerous science fiction works. However, Google director Ray Kurzweil believes that our bodies may be replaced by machines within ninety years and that some people will become digitally immortal*. His 1999 book *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* describes one possible future in which the boundaries between biological human intelligence and digital artificial intelligence blur*. Kurzweil mentions a possible future that seems both ⁽³⁾promising and terrifying. If super intelligent transhumans* become hundreds of times smarter, many problems such as hunger, war, and pollution could be solved. However, ⁽⁴⁾there is no guarantee that such computer-based intelligence would act "fairly" by ordinary human standards. According to Kurzweil, during the late 21st century humans who become part of super-intelligent AI systems* might start to regard ordinary humans as second-class citizens. At some point, ordinary people simply will not be able to keep up with the super-intelligent "transhumans." If you had the choice and could afford it, would you upload your own consciousness onto a computer? Would you like to purchase a robotic version of yourself?

* CEO「最高経営責任者」 GPS「全地球測位システム」 clone「クローン」
immortal「不死身の」 blur「あいまいになる」 transhuman「トランスヒューマン、超人間」
AI system「人工知能システム」

1 下線部 (1) の Bina48 の特徴を日本語で簡潔に説明しなさい。

2 下線部 (2) を和訳しなさい。

3 下線部 (3) の promising について、その具体的な内容を日本語で答えなさい。

4 下線部 (4) を和訳しなさい。

5 次の (1)、(2) に対する答えとして最も適切なものを、それぞれ 1 つずつ選びなさい。

(東洋大)

(1) Which statement is true about Martine Rothblatt?

- ① She is Ray Kurzweil's boss.
- ② She is a rich executive.
- ③ She hired a robot named Bina48.
- ④ Her partner wants to clone her.

(2) What concern is expressed if Ray Kurzweil's forecast about "spiritual machines" becomes true?

- ① Current humans might not be able to solve many of the world's problems.
- ② It might not be possible to "upload" brains onto computer systems.
- ③ It will probably be too costly for all persons to become transhumans.
- ④ The gap between ordinary humans and new "transhumans" might create conflicts.

5.

テーマ 動物
語数 378 words
出題校 武蔵大



Have you ever heard of the “quagga”? Perhaps not, but you may have seen a zebra before. The zebra is a horse-like animal with distinctive black and white stripes covering its body. The quagga was a member of the zebra family, brownish in colour with white stripes around the neck and the front part of the body. It is often said that quaggas looked like “(1) zebras which had forgotten to put on their pajama trousers.” Quaggas lived in Southern Africa, but they died out in the 19th century due to overhunting. We can now only see their wild beauty as stuffed specimens.

①-35

Some researchers, however, have tried to “revive” the quagga. (2) Because of its attractive stripe pattern, the quagga has gathered much attention from those interested in animal conservation. Those who would like to see the animals walk around the savannas again have conducted the Quagga Project for over thirty years in South Africa. It turns out that the quagga is genetically close to the plains zebra*. In this project, researchers have attempted to selectively breed plains zebras: they chose plains zebras which have fewer stripes and look slightly like quaggas. Baby zebras born to a slightly quagga-like mother and father may look more like the quagga, with a significantly reduced number of stripes. This project has achieved a certain level of success, producing several lovely baby zebras which have striking similarities to the quagga.

②-36

However, should we be happy about this? While this new generation of zebras is visually impressive, it only resembles the quagga in appearance. The fact is that these zebras are genetically different from quaggas. (3) The more we look at these young, cute, quagga-like zebras, the more we are forced to face the sad truth that the quagga died out because of our abuse of nature. Does this project help restore nature to its original state? Or is it just for the self-satisfaction of guilt-ridden human beings?

③-37

Furthermore, it is notable that people are interested in quaggas because they are beautiful in appearance. (4) It is said that good-looking endangered* animals tend to attract attention and money from people, but that plain-looking endangered animals are often ignored. This suggests that human beings are biased towards beauty and ugliness even when it comes to environmental causes.

④-38

* plains zebra 「サバンナシマウマ」 endangered 「絶滅の危険にさらされている」

1 下線部 (1) について、quagga はどんな外見をしていたか、本文に即して日本語で説明しなさい。

2 下線部 (2) を和訳しなさい。(quagga は「クアッガ」とする。)

3 第2段落の内容と一致するものを1つ選びなさい。

(武蔵大)

- ① In the Quagga Project, baby zebras born to a slightly quagga-like mother and father had more stripes than their parents.
- ② In the Quagga Project, quagga-like animals have been bred by researchers from plains zebras with fewer stripes.
- ③ The Quagga Project failed in producing many baby zebras that resembled the quagga.
- ④ The Quagga Project was conducted by those with little interest in animal conservation in South Africa.

4 下線部 (3) を和訳しなさい。

5 下線部 (4) について、このことからどういったことが言えると筆者は述べているか、日本語で答えなさい。

6 本文の内容に一致するものを1つ選びなさい。

(武蔵大・改)

- ① Some researchers have tried to “revive” the quagga in the Quagga Project, which lasted for only a few years in South Africa.
- ② The abuse of nature by human beings caused the disappearance of quaggas.
- ③ The quagga is a member of the zebra family and still lives in South Africa.
- ④ Those who are interested in plain-looking endangered animals do not like quagga-like zebras.

7.

テーマ 進化論
語数 359 words
出題校 甲南大



It is often thought that when humans first learned how to control fire, one of its major effects was to keep people warm, but ⁽¹⁾that idea wrongly implies that our pre-cooking ancestors would have had difficulty staying warm without fire. Chimpanzees survive nights exposed to long, cold rain-storms. Gorillas sleep uncovered in high, cool mountains. Every species other than humans can maintain body heat without fire. ⁽²⁾When our ancestors first controlled fire, they would not have needed it for warmth, (A) fire would have saved them some energy in maintaining body temperature.

But the opportunity to be warmed by fire created new options. Humans are exceptional runners, far better than chimpanzees and gorillas, and perhaps better even than wolves and horses, at running long distances. The problem for most animals is that they easily become overheated when they run. A chimpanzee sits exhausted after only five minutes' hard exercise, breathing heavily and visibly hot, with sweat pouring out of its body. Most animals cannot develop a solution to this problem because they need something to maintain body heat during rest or sleep, such as a thick coat of hair. ⁽³⁾This, of course, cannot be removed after exercise.

The best way to lose heat is not to have a lot of body hair in the first place. A scientist, Peter Wheeler, has long argued that ⁽⁴⁾this may be why humans are "naked apes": a reduction in hair might have allowed them to avoid becoming overheated on the hot savanna. But early humans could have lost their hair only if they had had an alternative system for maintaining body heat at night. Fire offers such a system. Once our ancestors controlled fire, they were able to keep warm even when they were resting. The benefit must have been high: the loss of their hair probably made humans better able to travel long distances during hot periods, when most animals are (B). They could then run for long distances when hunting animals. By allowing body hair to be lost, the control of fire increased humans' ability to run long distances making them better able to hunt or steal meat from rival species.

1 下線部 (1) の that idea の内容を日本語で説明しなさい。

2 下線部 (2) を和訳しなさい。

3 下線部 (3) を This が指すものを明らかにして和訳しなさい。

4 下線部 (4) の this の内容を日本語で説明しなさい。

5 空所 (A) (B) に入る適切な語を、それぞれ1つずつ選びなさい。

(甲南大)

(A)

- ① as far as ② because ③ so that ④ although

(B)

- ① hunting ② inactive ③ naked ④ feeding

6 次の文の中から、本文の内容に一致するものを3つ選びなさい。

(甲南大)

- ① One might think that humans had had no means of keeping themselves warm before they learned how to control fire, but this is not true.
② Humans are the only species that can keep their body temperature high enough to survive without fire.
③ Only five minutes' hard exercise is enough to make a chimpanzee exhausted and sweat a lot.
④ Losing body hair enabled humans to run even faster.
⑤ When early humans lost their body hair, they tried to find another way to keep warm, and so learned to use fire.
⑥ Thanks to a reduction in body hair, humans became better at traveling long distances and therefore more successful at hunting.

8.

テーマ 社会
語数 484 words
出題校 フェリス女学院大



Hita Gupta was heartbroken upon learning that her regular visits to nursing homes were put on hold because of the coronavirus. 1-56

“They told me that I couldn’t visit because they were trying to limit interaction with seniors to prevent the spread of the virus,” Hita told CNN.

The 15-year-old had been volunteering at one facility near her home in Paoli, Pennsylvania, for more than a year — organizing activities like trivia quizzes and bingo for the residents.

“The seniors aren’t able to see their families, so that’s causing loneliness, boredom and anxiety,” she said.

And then she thought of her own grandparents.

“They’re in India but I have calls with them on Skype*. Even though they have to stay home, we can speak to them. The nursing home residents may not have that option,” Hita explained.

So, she came up with the idea to send goodie bags* — each one filled with one large-print puzzle book, an adult coloring book, and coloring pencils. 1-57

“The puzzle and coloring books will help nursing home residents stimulate their minds and keep them occupied,” said Hita.

The packages also include an encouraging note written by her 9-year-old brother, Divit. “My brother helps me a lot. It’s a lot of work.”

Hita coordinates with the nursing homes ahead of time to confirm that the bags can be received safely.

“I call them and say I’m going to leave the boxes outside the front door. They usually leave them out for a few days to make sure there aren’t any germs* before passing them out to the residents.”

She has now sent packages to 23 nursing homes in the Philadelphia area.

“Cheering them up makes me happy. Even if it’s just for one day.”

Initially, Hita was purchasing items with her own pocket money, but figured if she wanted to make a larger impact, she would need more money. 1-58

As news spread of her good deed, more people wanted to help.

“I’ve heard from a lot of people and people are sharing on social media. They’ve reached out saying, ‘You’ve inspired me to do a similar project in my area.’”

The second-year high school student has created a GoFundMe* account to help make even more of the thoughtful packages.

“(1) It makes me feel happy that she is able to give back to the community. She’s able to let them know that they’re not alone and there’s a community that stands with them. I am very proud,” Hita’s mom, Swati, said. 35

The teenager says she will continue doing this until the public health crisis is over.

“Loneliness is now a bigger problem than ever with our social distancing guidelines. (2) We need to let nursing home residents know that they are not being forgotten, and that they are not alone. As a community, we need to work together to make seniors feel loved and valued.” 40

* Skype 「インターネット通話サービス」 goodie bag 「(品物などの) 詰め合わせ」
germ 「病原菌」 GoFundMe 「募金をするために用いるインターネット・サービス」

1 What is happening because older people living in seniors’ homes can’t see their families? Answer in Japanese.

2 Translate the underlined sentence (1) into Japanese.

3 Translate the underlined sentence (2) into Japanese.

4 Choose one statement that is true according to the passage. (フェリス女学院大・改)

- ① The coronavirus prevented Hita from visiting the nursery near her house.
- ② Hita could hardly stay in touch with her grandparents, who lived in India.
- ③ Hita thought that the seniors in the nursing homes would be cheered up by her presents such as puzzles and coloring books.
- ④ Initially, the nursing homes refused Hita’s offer because they feared the spread of the virus.

5 Choose one statement that is true according to the passage. (フェリス女学院大・改)

- ① Hita’s presents reached more than twenty nursing homes located in the Philadelphia area.
- ② People who learned about Hita’s activity invited her to their community.
- ③ In order to expand her activity, Hita donated her pocket money to the funds for the elderly.
- ④ Hita has the intention to continue her activity as long as the nursing homes ask her to.

9.

テーマ 経済
語数 468 words
出題校 日本大



The current minimum wage in the United States is \$7.25 per hour. That means ①-63
that a person working full time (40 hours per week) earns \$290 per week, or \$15,080
per year. In most parts of the country, this is not enough to pay for basic necessities.
In Philadelphia, for example, the average rent for a one-bedroom apartment is more
than \$1,600 per month. A person working full time at minimum wage in Philadelphia
5 simply cannot afford to live there. I believe that the minimum wage should be
replaced by a 'living wage' which would provide a full-time worker with enough
income to live on.

We haven't always had ① this problem. In the early 1970s, even the lowest-paid ①-64
employees earned enough money to provide for themselves, and ② far fewer families
10 required two incomes in order to live comfortably. Even though workers are more
productive today, wages have remained about the same. In the meantime, the cost
of necessities (such as housing, health care, child care, education, and transportation)
has increased greatly. In short, wages have not kept up with the cost of living.

Those in favor of a living wage, which would vary depending on the cost of living ①-65
15 in a particular city, believe that earning a living wage should be guaranteed as a
human right. Everyone has the right to be paid fairly for their labor, they say. They
also claim two economic benefits of a living wage. First, a living wage would reduce
the number of people receiving money from the government to buy necessities. This
20 reduces the financial burden on taxpayers. Second, if people have more money, they
are likely to spend it in their local communities, buying the items they need from
local businesses. ③ This, supporters suggest, will increase profits, create jobs, and
strengthen local economies.

Those against a living wage argue that the economic effects on local businesses ①-66
25 and economies could be very negative. ④ They point to the burden placed on small
businesses. If a fast food restaurant, for example, is required to raise the hourly wage
of all of its employees by as much as 40%, the owners will be forced to raise prices
to cover their increased costs. Some companies may be forced to cut jobs, while
others may have to close completely because they can no longer remain competitive
30 and make a profit. Under these conditions, local economies are likely to suffer as
prices increase and employment decreases.

Some cities have already passed living wage laws, which require local employers ①-67
to pay employees at a rate that is much higher than the minimum wage. However,
these laws have only recently been put into action, and it is too soon to judge their

effectiveness. More data are needed in order to determine if these laws improve the 35
lives of working people.

1 次の質問に対する答えとして、適切なものを1つ選びなさい。(日本大)

Why does the author refer to the cost of an apartment in Philadelphia?

- ① To encourage people to live outside of the city.
- ② To encourage people to work more if they want to live in Philadelphia.
- ③ To show that people earning the minimum wage cannot afford to live there.
- ④ To show that Philadelphia is the most expensive city to live in.

2 下線部 (1) の this problem が生まれた原因は何か、日本語で簡潔に答えなさい。

3 下線部 (2) を和訳しなさい。

4 下線部 (3) は何を指しているか、適切なものを1つ選びなさい。(日本大)

- ① Government reducing the financial burden on taxpayers.
- ② People spending their increased wages locally.
- ③ Fewer people relying on assistance from the government.
- ④ Viewing a living wage as a human right.

5 下線部 (4) を、They が指すものを明らかにして和訳しなさい。

6 次の質問に対する答えとして、最も適切なものを1つ選びなさい。(日本大)

What has been the effect of current living wage laws?

- ① They have had no effect on local economies.
- ② They have been generally successful.
- ③ They have failed to improve people's lives.
- ④ They have not yet been clearly evaluated.



Born and raised on the very poor island of Makoko in Nigeria, Noah Shemedede 2-1
can still remember when he first held a bottle of Coca-Cola in his hand. He tasted
the drink ten years ago, on his ninth birthday, after his parents had made a special
trip just to buy a bottle of it for him. However, he did not enjoy that first mouthful.
5 “I thought it was awful,” Noah said laughing.

(1) Across Africa, global brands like Coca-Cola were once rarely seen in places 2-2
such as Makoko, where people were too poor to buy expensive brand-name goods.
Now though, things are changing. Sub-Saharan Africa has experienced ten years of
strong economic growth, and people’s standard of living has risen as a result. The
10 brand-name goods that you can see in the supermarkets of rich countries are
becoming more common. Big global companies expect Africa to keep on developing
in the future.

Today, Noah Shemedede’s sister Fatima sells Coca-Cola, Fanta and Sprite, along 2-3
with home-fried snacks, from her canoe. The price is still high for local people.
15 “These are not drinks for everyday drinking. Adults buy them for special occasions,”
she said. Another sign of change in Makoko that she tells us about is that families
sometimes eat Nisshin instant noodles rather than traditional food like cow-tongue
soup with rice.

All over the African continent, global companies interested in Africa’s growth are 2-4
trying to increase their sales. In Cameroon, Irish Guinness beer, famous for its rich
20 flavor, has become an unexpected hit even in the countryside. Villagers like to mix
it with local wine, to give it more taste and color. In Kenya and Nigeria, Samsung’s
solar-powered mobile phones are very popular. In Ivory Coast’s cities, and even in
the poor districts, (2) it is common to see youths selling Nestlé coffee in small cups,
25 so that locals can afford to buy some.

Swiss-based Nestlé, which is one of the biggest global coffee and sweets 2-5
companies, has been very successful in Africa recently. One reason for this is that
it has used local sales agents. The people who own the family-run shops, which are
so common in Africa, prefer to deal with people they know. In this way, Nestlé has
30 doubled the number of African shops selling its products during the last year. Now,
nearly half of its yearly profits come from developing countries, and Africa is an
especially important market.

2-6 This trend is not all positive. (3) Not everyone thinks it is a good thing for the
world’s richest companies to make their profits in the world’s poorest countries.
After all, these companies can damage local producers of similar products, and 35
probably poor people would be better off spending their limited money on health,
education, and technology rather than on costly brand-name products. But all the
same, the increasing consumption of global brands does show that Africa is getting
richer, and this can only be good for its many poor people.

1 下線部 (1) について、その理由を日本語で答えなさい。

2 下線部 (2) を和訳しなさい。

3 下線部 (3) を和訳しなさい。

4 本文の内容に最もよく合うものをそれぞれ1つずつ選びなさい。

(京都産業大・改)

(1) The international companies are targeting Africa because _____.

- ① the economy continues to grow there
- ② local companies want to cooperate with them
- ③ the number of supermarkets has increased dramatically
- ④ their products are essential for the lives of African people

(2) According to Fatima, Coca-Cola _____.

- ① is not enjoyed daily
- ② goes well with traditional food
- ③ is inexpensive if bought locally
- ④ is so special that adults will not drink it

(3) One of the reasons Nestlé has hired many locals in Africa as salespeople is _____.

- ① the cost of hiring local people is high
- ② people would rather not do business with strangers
- ③ the company’s treatment of local staff is outstanding
- ④ family-run shops there are more stable than supermarkets

(4) What would be the best title for this passage?

- ① Africa: the Last Resort
- ② Global Brands in Africa
- ③ Disadvantages of Global Brands
- ④ Where Global Brands Came From



A coral reef* is made up of many coral colonies all living together. The reef may stretch hundreds of miles across, but it is constructed by coral polyps* only a quarter of an inch or less in size. The reef itself is a living, growing organism — colonies of tiny animals all working together to create the largest structures on Earth. This is one of the most complex and mysterious ecosystems* known to mankind, and it all works because of the tiny animals that produce the huge reef structure.

Over half a billion years ago, before there was any life on land, the seas contained primitive coral reefs, consisting of sponges* and primitive corals. ⁽¹⁾This means that coral reefs are among the oldest complex natural communities still in existence on Earth. While many changes and extinctions in reefs have occurred throughout their history, reefs have survived. In fact, some coral reef animals known today are almost unchanged from those found in fossils dating from the age of dinosaurs, 100 million years ago. ⁽²⁾Coral reefs are wonderful to see, and rich gardens in the sea, supporting an astonishing amount of marine life in a densely packed, thriving marine metropolis. In fact, coral reefs have the largest abundance and greatest diversity of life living together of any place on Earth, including the tropical rain forests. ⁽³⁾People often refer to coral reefs as “rainforests of the sea.”

In an area with this much diversity of life, it is easy to think that the tropical oceans are highly rich in nutrients. ⁽⁴⁾This is the popular misunderstanding. Compared to the cold, murky waters of the temperate seas, tropical seas limit the number of animal plankton, which makes their water clear, yet with very low food resources. Thus, coral reefs live in nearly sterile* water. A coral reef is a gathering place in the ocean. ⁽⁵⁾It is an oasis in a desert, a place which gives shelter and food in an ocean where these things are rare. In fact, the entire tropical ocean ecosystem depends on the reef for sustenance.

* reef 「礁(しょう)」 coral polyps 「サンゴ虫」 ecosystem 「生態系」
 sponges 「海綿動物」 sterile 「不毛な」

1 下線部(1)のThisが指す内容を日本語で説明しなさい。

2 下線部(2)を和訳しなさい。

3 下線部(3)のように述べられている理由を最もよく表すものを1つ選びなさい。

(兵庫県立大)

- ① Strange creatures are often found in a tropical ocean.
- ② Numberless creatures make up a living organism.
- ③ Beauty of nature can be seen in the sea.
- ④ Living things in the sea have something in common with those in forests.

4 下線部(4)に関して、次の①[]②[]の空所に適切な日本語を入れなさい。

実際は、熱帯の海は①[]の、一般の人々は②[]と誤解している。

5 下線部(5)の理由を最もよく表すものを1つ選びなさい。

(兵庫県立大)

- ① Fishes are always searching for food and shelter in the tropical ocean.
- ② Coral polyps produce clearer water for their growth.
- ③ There are few living creatures in the tropical ocean except coral polyps.
- ④ There are almost no other places to feed and protect sea animals.

6 本文のタイトルとして最もふさわしいものを1つ選びなさい。

(兵庫県立大)

- ① Coral Reefs — How to Enjoy Summer in the Ocean
- ② The Wonder of the Sea — A Number of Colonies
- ③ Searching for Beautiful Rainforests of the Sea
- ④ Tropical Ocean Ecosystem — The Life of Coral Reefs



For some lizards it is easy being green. It is in their blood. Six species of lizards in New Guinea bleed lime green thanks to evolution gone weird. It is unusual, but there are creatures that bleed different colors of the rainbow besides red. The New Guinea lizards' blood — along with their tongues, muscles, and bones — appears green because of incredibly large doses of a green bile* pigment*. ⁽¹⁾ The bile levels are higher than those at which other animals, including people, could survive.

Scientists still do not know why this happened, but evolution is providing some hints into this nearly 50-year mystery. By mapping the evolutionary family tree of New Guinea lizards, researchers found that green blood developed inside the amphibians — animals that can live both on land and in water — at four independent points in history, likely from a red-blooded ancestor, according to a study in Wednesday's journal *Science Advances*. ⁽²⁾ This is not a random accident of nature but suggests this trait of green blood gives the lizards an evolutionary advantage of some kind, said Christopher Austin of Louisiana State University. "Evolution can do amazing things given enough time," Austin said. "The natural world is a fascinating place."

Austin first thought that maybe being green and full of bile would make New Guinea lizards taste bad to potential predators. "I actually ate several lizards myself and they did not taste bad," Austin said. He also fed plenty of them to a paradise kingfisher bird with no ill effects except maybe a fatter bird.

Understanding bile is probably key. Blood cells do not last forever. After they break down, the iron is recycled for new red blood cells, but toxins are also produced, which is essentially bile. In the New Guinea lizards, levels of a green bile pigment are 40 times higher than what would be toxic in humans. It is green enough to overwhelm the color of the red blood cells and (A) everything green, Austin said. In people, elevated green bile pigment levels sometimes kill malaria parasites. Austin thinks that might be why lizards evolved to be green-blooded because malaria is an issue for New Guinea and lizards. It might be the result of evolution trying to kill the malaria parasite in lizards or it might be past lizards were infected so heavily that this was the body's reaction, he said.

Michael Oellermann, a researcher at the University of Tasmania in Australia,

praised Austin's work and wondered if there is an evolutionary cost to having green blood. ⁽³⁾ Otherwise more creatures would bleed green or another color, he said.

* bile 「胆汁」 pigment 「色素」

1 下線部 (1) を和訳しなさい。

2 下線部 (2) This の具体的な内容を、本文に即して日本語で説明しなさい。

3 本文中の空所 (A) に入る最も適切な語を1つ選びなさい。

(名古屋工業大)

① appear ② deserve ③ perceive ④ turn

4 下線部 (3) を、Otherwise の表す内容を明らかにしながら和訳しなさい。

5 本文の内容に一致するものを1つ選びなさい。

- ① It is common for people in New Guinea to eat lizards to prevent disease.
- ② Some researchers examined trees in New Guinea and found some hints to solving the mystery of the green blood.
- ③ It has become clear that the lizards' green blood helped them avoid and kill their predators.
- ④ Malaria parasites are weak against blood with very high bile pigment levels.



Since ancient times, historians have noticed that the rise and fall of civilizations is closely connected to population changes. These shifts in population have had ⁽¹⁾a significant effect on the destiny of societies. Shrinking populations have often given way militarily, economically, and culturally to expanding populations. Growing populations, particularly when geographically bound, have been the cause of many historical events. Among the historical changes brought about by population growth are political revolutions and national expansion.

2-27

Britain's expansion into the New World and the Industrial Revolution were both in many ways the result of Great Britain's large population growth rates in the 17th century. ⁽²⁾Britain's population growth resulted in a widely held belief in the 18th and 19th centuries that it faced an unemployment crisis. To resolve the crisis, the government encouraged people to move abroad to its colonies in America and Australia. It also encouraged businesses to invest in new ideas as a way of creating jobs. Some of the new ideas eventually led to the technological breakthroughs of the Industrial Revolution.

2-28

Population growth in 18th-century France played a role in the French Revolution. France's population grew from 24.6 million in 1740 to 28.1 million in 1790. This helped increase the demand for food at a time of short supply, thereby driving up food prices throughout France. Price rises spread further as a result of urbanization and the increased circulation of money. Consequently, ⁽³⁾the purchasing power of the average French wage earner was reduced, which caused a business downturn. The downturn hurt the growing and increasingly powerful French craftsman and merchant classes. This situation led to social unrest made worse by an unfair tax system, which failed to provide enough revenue to support public spending. This in turn led to financial ruin in 1787 and finally revolution in 1789.

2-29

Japanese expansion from the 1870s to 1945 was caused in part by Japan's rise in population. In the mid-19th century, the Japanese population grew rapidly. This came after a period of 150 years in which Japanese deliberately reduced their birth rates to slow growth. Growth led to fears about declining living standards and the need for more land. Japanese rulers took advantage of ⁽⁴⁾these fears and gathered support for an expansionist policy. This included settling the northern islands of the archipelago and taking control of Okinawa, Taiwan and Korea.

2-30

1 下線部 (1) が指すものを、第 1 段落の内容を踏まえて、日本語で説明しなさい。

2 下線部 (2) を和訳しなさい。

3 下線部 (3) を和訳しなさい。

4 下線部 (4) の内容を、日本語で答えなさい。

5 次の各問の答えとして最も適切なものを 1 つずつ選びなさい。

(東邦大)

(1) Who was encouraged to relocate (move to another place) in the 19th century?

- ① The British government. ② Americans and Australians.
 ③ The British population. ④ British businesses.

(2) How did population growth lead to the French Revolution?

- ① It made the craftsman and merchant classes more powerful.
 ② It increased the demand for food, which caused inflation.
 ③ It led to more public spending and eventual economic failure.
 ④ It caused urban areas to grow, which led to social unrest.

(3) When did Japanese intentionally reduce their birth rates?

- ① From the 18th to the mid-19th century.
 ② From the mid-19th century until 1945.
 ③ From the 19th to the mid-20th century.
 ④ From the 1870s for a period of 150 years.



Most people know that the *Titanic* sank because it hit an iceberg*. However, Donald Olson, an expert in physics, and a team of scientists have examined ⁽¹⁾the role the moon may have played in the disaster. Since the *Titanic* sank in the early hours of April 15, 1912, resulting in great loss of life, scholars have puzzled over why Captain Edward Smith was not worried about warnings of icebergs nearby. Smith, the most experienced captain in the White Star Line, had sailed the North Atlantic sea lanes on numerous occasions. He had been assigned to the first voyage of the *Titanic* because he was a knowledgeable and careful seaman. 2-35

Why had such a large number of icebergs floated into the shipping lanes so far south that night? Olson and his team investigated one theory that an unusually close approach by the moon in January, 1912 may have produced very high tides. As a result, far more icebergs than usual managed to separate from Greenland, and floated, still fully grown, south into the shipping lanes. 2-36

Olson said ⁽²⁾a “once in many lifetimes” event occurred on January 4, 1912, when the moon and sun lined up in such a way that their gravitational pulls* increased each other. At the same time, the moon’s approach to Earth that January was the closest it had been in 1,400 years. The point of closest approach occurred within six minutes of the full moon. ⁽³⁾On top of that, the Earth’s closest approach to the sun in a year had happened just the previous day. “This ⁽⁴⁾arrangement of events increased the moon’s tide-raising power to the maximum,” Olson said. Olson’s research determined that to reach the shipping lanes by mid-April, ⁽⁵⁾(must / the *Titanic* / that / the iceberg / into / have / crashed) broken off from Greenland in January, 1912. The high tide caused by the strange combination of events would have been enough to separate icebergs and keep them floating to reach the shipping lanes by April, he said. 2-37

⁽⁶⁾The team’s *Titanic* research may justify Captain Smith’s choices by showing that he had a good excuse for reacting so casually to a report of ice in the ship’s path. He had no reason at the time to believe that the icebergs he was facing were as numerous or as large as they turned out to be, Olson said. 2-38

“The probability of all these variables lining up in just the way they did was, well, hard to imagine,” he concluded.

* iceberg 「冰山」 gravitational pulls 「引力」

1 下線部 (1) について、その具体的な内容を本文に即して日本語で説明しなさい。

2 下線部 (2) はどのような意味か、次の中から最も適切なものを1つ選びなさい。

- ① 多くの命が失われた出来事 ② 何世代にもわたって完成された事業
 ③ 何千年に一度の出来事 ④ 何人もの人々がかつて経験した出来事

3 下線部 (3) (4) の内容の説明として最も適切なものを1つずつ選びなさい。 (神奈川大)

(3) On top of

- ① In addition to ② Positioned just above
 ③ Supported by ④ Immediately before

(4) arrangement of events

- ① gathering of parties ② schedule of actions
 ③ assembly of people ④ combination of factors

4 下線部 (5) の () 内の語句を正しく並べかえなさい。

5 下線部 (6) を和訳しなさい。

6 次の (1) ~ (3) の英文に続けるのに最も適切なものを1つずつ選びなさい。 (神奈川大・改)

(1) Captain Edward Smith was assigned to the *Titanic* because

- ① he was president of the White Star Line at that time.
 ② he had spent many years crossing the Atlantic Ocean.
 ③ he was the oldest captain commanding White Star Line ships.
 ④ he was interested in icebergs and wished to study their movements.

(2) Olson believes Captain Smith may have reacted calmly to the report of icebergs because ...

- ① the *Titanic* was built so that it would never sink.
 ② he thought they would be smaller and fewer than they actually were.
 ③ he heard that only a few very small icebergs were floating in the area.
 ④ the reports said the icebergs were very dangerous for the *Titanic*.

(3) According to Olson, the chances of such an accident happening would have been ...

- ① planned in great detail. ② pictured clearly.
 ③ difficult to predict. ④ scientifically mapped.

15.

テーマ 教育
語数 367 words
出題校 専修大



In junior high school, one of my classmates had a TV addiction* — back before it was normal. This boy — we'll call him Ethan — watched TV all day long and knew almost everything about TV comic shows. ②-43

Then one day, Ethan's mother made him (1) a bold offer. If he could go a full month without watching any TV, she would give him \$200. None of us thought he could do it. But Ethan quit TV quite easily. His friends offered to let him (2) cheat at their houses on Friday nights. Ethan said no. One month later, Ethan's mom paid him \$200. He went out and bought a TV, the biggest one he could find.

Since there have been children, there have been adults trying to get them to obey their parents. The Bible repeatedly commands children to listen to their parents and proposes that disobedient* children be killed by throwing stones at them, or at least have their eyes picked out by cruel birds. Over the centuries, (3) the stick has lost favor to the carrot in most cases. Today adults start rewarding kids with cheap gifts, such as a candy for using the toilet or a cookie for sitting still in church, before kids can speak in full sentences. ②-44

In recent years, hundreds of schools in the USA have made these transactions more businesslike, experimenting with paying kids with real money for showing up in class, getting good grades or going another day without fighting. ②-45

I have not met a child who does not admire this trend. But (4) it makes adults terribly uncomfortable. Teachers complain that we are rewarding kids for doing what they should be doing of their own will. Psychologists warn that money can actually make kids perform worse, because it makes them lose respect for the act of learning. Parents predict that kids will be lazy after the incentives go away. (5) The debate has become a big battle that caused the larger dispute over why our kids are not learning at the rate they should be despite decades of reforms and budget increases. ②-46

But all this time, there has been only one real question, particularly in America's lowest-performing schools: Does it work? ②-47

* addiction 「中毒」 disobedient 「言うことをきかない」

1 下線部 (1) の具体的な内容を日本語で答えなさい。

2 下線部 (2) は具体的に何をすることを表しているか、日本語で答えなさい。

3 下線部 (3) の意味として最も適切なものを1つ選びなさい。

(専修大)

- ① 罰よりも報酬を与えるほうが好まれるようになった。
- ② 敗者はほうびではなく罰を与えられた。
- ③ ほうびのアメもなめると味がなくなり、ただの棒になった。
- ④ 子どもに石を投げつけると、現代社会では罰せられる。

4 下線部 (4) について、教師たちはどのように考えているのか、日本語で答えなさい。

5 下線部 (5) を和訳しなさい。

6 本文の内容に一致するものを1つ選びなさい。

(専修大)

- ① Kids may respond better to rewards for specific actions because there is less risk of failure.
- ② Most of the kids work hard for the love of learning, not for short-term rewards.
- ③ A combination of school reforms and the interaction among those reforms will matter more than any single change in isolation.
- ④ Some schools in the USA give kids money when they get good grades.

7 本文のタイトルとして最も適切なものを1つ選びなさい。

(専修大)

- ① Should Kids Be Given Money to Do Well in School?
- ② How Ethan Spends Friday Nights with His Friends
- ③ Kids Can Learn More than They Should with Friends
- ④ Money Always Makes Kids Perform Worse in School



The number of road deaths in Japan in 2018 was a record low of 3,532. The National Police Agency reported that this reduction since the peak in 1970 of over 16,000 was due to more traffic safety education. The introduction of seat belts, air bags and other safety equipment into cars since 1970 is also likely to be a factor. Three thousand five hundred is still a high number, averaging roughly ten per day. Many people dream that self-driving cars (SDC) will greatly increase road safety. To date, the accidents involving SDCs have been caused by humans. The hope is that when all cars are SDCs, human error will be (A) eradicated, and road deaths become a thing of the past.

However pleasant this idea may be, it remains a dream. SDCs need to be programmed to predict as many situations as possible to reduce danger. Certainly, unexpected situations will still occur, such as people breaking the law at red lights and walking into the oncoming traffic. A major question arises; when danger cannot be circumvented, how should SDCs be programmed to respond?

The English philosopher Phillipa Foot introduced a thought experiment called the *Trolley Problem*. A driverless train is going along a track which divides into two branches. On one branch, five people are tied up on the track. On the other branch, one person is tied up. The train cannot be stopped, and it will hit the five people. A switch controls which branch the train travels. You have (1) two options: 1) to press the switch to move the train onto the other track. This means that one person will be hit, but that you will have initiated this; 2) to do nothing. In this case, five people will be hit, but you will not be involved in the accident. In tests, most people say that they will press the switch and save five lives.

The Trolley Problem is useful for future SDC technology because it gets people to think about issues that are important in road safety. Should SDCs be programmed to, for example, save more or fewer lives? The options can be changed to other choices. Should young people's lives be saved instead of old people's? Females or males? Doctors or homeless people? Healthy or unhealthy? The list goes on. A team of scientists from the Massachusetts Institute of Technology (MIT) created a website to ask these questions. By 2018, the MIT team had collected over 40 million responses from all over the world. The results were (B) intriguing: females are more important than males; younger people more valuable than older people; high-status

citizens more meaningful than low-status individuals. Differences between cultures were also observed. For example, Eastern countries, including Japan, preferred to (2-1) the (2-2) of lawful people, but Southern countries, such as Brazil, did not.

So far, however, these tests are only thought experiments. (3) What people say they will do and what they actually do may be very different. What we say is based on how we think. But are we really the people we think we are? In 2018, an American TV show *Mind Field* tested this question with real people. Making this show was very dangerous in terms of morals because it can cause severe psychological damage to the people in the study. The information learned from the show, however, indicated that many people would be paralyzed; they could do nothing. The message for SDCs is highly complex. From now on, there needs to be a serious discussion between governments, car manufacturers and consumer groups about how SDCs should respond to unusual situations. (4) This is likely to be an intriguing and extremely valuable discussion.

1 Which is the closest in meaning to each of the underlined words (A) and (B)? (岩手大)

(A) eradicated

- ① destroyed ② removed ③ defeated ④ damaged

(B) intriguing

- ① disappointing ② frightening ③ interesting ④ encouraging

2 Regarding the underlined part (1), explain in Japanese what the result will be if you choose the option 2).

3 Write the most appropriate word to fill in each of the blank spaces (2-1) and (2-2). Choose the words from the passage.

(2-1) _____

(2-2) _____

4 Translate the underlined part (3) into Japanese.



We often worry about lying awake in the middle of the night — but it may not 2-61
 be a problem. A growing body of evidence from both science and history suggests
 that a long and uninterrupted sleep may not be natural.

In the early 1990s, researcher Thomas Wehr conducted (1) an experiment in which 2-62
 a group of people were kept in darkness for 14 hours every day for a month. It took
 some time for their sleep to become regular, but by the fourth week the subjects had
 settled into a very distinct sleeping pattern. They slept first for four hours, then woke
 for one or two hours before falling into a second four-hour sleep.

(2) Though sleep scientists paid attention to the results of the study, the idea that 2-63
 we must sleep for eight continuous hours persists among the general public. More
 recently, in 2001, historian Roger Ekirch of Virginia Tech published an influential
 paper, drawn from 16 years of research, revealing a lot of historical evidence that
 humans used to sleep in two distinct periods. His book *At Day's Close: Night in Times
 Past*, published four years later, presents more than 500 references to (3) a split sleeping
 pattern — in diaries, court records, medical books, and literature, from ancient 15
 Greece to modern Africa.

Much like the experience of Wehr's subjects, these references describe a first sleep 2-64
 which began about two hours after sunset, followed by a waking period of one or two
 hours and then a second sleep. "It's not just the number of references to this sleeping
 pattern that is significant, but it's also the way they refer to it, as if it were common
 knowledge," Ekirch says. 20

During this waking period, people did all kinds of things. They often got up, 2-65
 went to the toilet or smoked tobacco and some even visited neighbors. People read,
 wrote, and often prayed. Countless prayer manuals from the late 15th century offered
 special prayers for the hours in between sleeps. Ekirch found that references to the
 first and second sleep began to disappear during the late 17th century. (4) This started
 among the urban upper classes in northern Europe, and over the course of the next
 25 200 years gradually influenced the rest of Western society. By the 1920s, the idea of
 a first and second sleep had disappeared completely.

Ekirch gives the reasons for the initial shift as improvements in street lighting, 2-66
 home lighting and an increase in coffee houses, which were sometimes open all night.

(5) As the night became a time for increased activity, the length of time people could
 spend resting decreased. With the introduction of street lighting, socializing at night
 slowly became common among all social classes. In 1667, Paris became the first city 35
 in the world to light its streets, using wax candles in glass lamps. It was followed by
 Amsterdam two years later, where a much more efficient oil-powered lamp was
 developed. London did not install street lighting until 1684, but by the end of the
 century, more than 50 of Europe's major towns and cities were lit at night. Nighttime
 activities became fashionable, so people went to bed later, and (6).

1 下線部 (1) の実験の最終的な結果を、日本語で簡潔に説明しなさい。

2 下線部 (2) を和訳しなさい。

3 下線部 (3) の内容を表すものとして最も適当なものを1つ選びなさい。

- ① A pattern of sleeping that is good for health
- ② A pattern of sleeping that harmed people in the past
- ③ A pattern of sleeping uninterrupted for long hours
- ④ A pattern of sleeping with two parts

4 下線部 (4) の This が示す内容を日本語で答えなさい。

5 下線部 (5) を和訳しなさい。



There is ⁽¹⁾ a paradox* at the heart of our lives. Most people want more income and work hard for it. Yet, as Western societies have got richer, their people have become no happier. This is no old wives' tale. It is a fact proven by many pieces of scientific research. As I'll show, we have good ways to measure how happy people are, and all the evidence says that on average people are no happier today than people were fifty years ago. At the same time, however, average incomes have doubled. This paradox is equally true for the United States, Britain and Japan.

But aren't our lives infinitely more comfortable? Indeed: we have more food, more clothes, more cars, more holidays and, above all, better health. Yet we are not happier. Despite all the efforts of governments, teachers and doctors which have improved our lives, human happiness has not increased. Suppose you were asked to choose between living in two imaginary worlds, in which prices were the same. In the first of these worlds you would get \$50,000 a year, compared with an average income of \$25,000. In the second of these worlds you would get \$100,000 a year, compared with an average income of \$250,000. Which do you choose? This question was put to a group of Harvard students and ⁽²⁾ the majority preferred the first type of world. They were happy to be poorer, if their relative position improved. People care greatly about their relative income, and they would be willing to accept a significant fall as long as they could improve their position in relation to other people.

People also compare their income with what they themselves are used to. When they are asked how much income they need, richer people always say they need more than poorer people. So ⁽³⁾ whether you are happy with your income depends on how it compares with some standard. And that standard depends on two things: what other people get and what you yourself are accustomed to getting. In the first case your feelings are governed by social comparison, and in the second by your ability to get used to things.

Because these two forces are so strong in human nature, it is quite difficult for economic growth to improve our happiness. The reason for this is that as actual incomes rise, the standard by which income is judged rises in step. You can see this from data collected by the Gallup Poll* in the United States over many years. People were asked, "What is the smallest amount of money a family of four needs to get along reasonably well in this community?" ⁽⁴⁾ The chart shows how much money people thought they needed to live comfortably — that is, their "required income," and how much money they actually earn — that is, their "actual income." According to the chart, as people's actual income increases, the amount of money they say they need also increases. So even though people become richer, they are never satisfied. They never say, "I earn much more than I need, so I am happy." They simply feel that they need more money to be happy. This explains why people become no happier even when their standard of living improves.

These facts are truly depressing, because they mean that ⁽⁵⁾ we cannot be happier however much money we might get. But at the same time, they teach us a useful lesson: financial success is not always necessary for your happiness, and to find another aspect of life that satisfies you is an easier way of becoming happy.

* paradox「逆説」 Gallup Poll「ギャラップ調査（世論調査の一種）」

1 第1段落の内容を踏まえて、下線部(1)の a paradox の具体的な内容を日本語で簡潔に答えなさい。

2 下線部(2)について、なぜこのような結果になったのかを日本語で説明しなさい。

3 下線部(3)を和訳しなさい。
