

英語問題

(平成27年度)

【注意事項】

1. この問題冊子は「英語」である。
2. 試験時間は90分である。
3. 試験開始の合図まで、この問題冊子を開いてはいけない。ただし、表紙はあらかじめよく読んでおくこと。
4. 試験開始後すぐに、以下の5および6に記載されていることを確認すること。
5. この問題冊子の印刷は1ページから8ページまでである。
6. 解答用紙は問題冊子中央に3枚はさみこんである。
7. 問題冊子に落丁、乱丁、印刷不鮮明な箇所等があった場合および解答用紙が不足している場合は、手をあげて監督者に申し出ること。
8. 試験開始後、3枚ある解答用紙の所定の欄に、受験番号と氏名を記入すること（1枚につき受験番号は2箇所、氏名は1箇所）。
9. 解答は必ず解答用紙の指定された箇所に記入すること。解答用紙の裏面に記入してはいけない。
10. 問題番号に対応した解答用紙に解答していない場合は、採点されない場合もあるので注意すること。
11. 問題冊子の中の白紙部分は下書き等に使用してよい。
12. 解答用紙を切り離したり、持ち帰ってはいけない。
13. 試験終了時刻まで退室を認めない。試験中の気分不快やトイレ等、やむを得ない場合には、手をあげて監督者を呼び指示に従うこと。
14. 試験終了後は問題冊子を持ち帰ること。

[I] 次の文章を読んで、下の問いに解答欄の範囲内で答えなさい。

More and more companies from fields other than medical services are entering the market for genetic testing, which makes it possible for people to easily find out the risks of their developing certain types of diseases such as cancer and diabetes.

It is necessary for people to correctly understand the nature of genetic testing available, including its accuracy, before they decide to undergo the tests.

Recent entrants into the market include Internet firms like Yahoo! and DeNA. The number of companies offering genetic testing services more than doubled from 340 in 2009 to around 740 in 2012. Many more companies are planning to enter the business because genetic testing services are not a medical activity and does not require a license.

The companies, which are providing what is considered to be an information service, entrust the job of actual examination of genes to testing institutes.

Still, commercialization of the services carries some problems. The selling point of commercial genetic testing is that by sending a mouth swab sample to a testing institute, one can know his or her risks of developing various diseases. The biggest issue is the accuracy of such tests.

A genetic testing venture 23andMe, in which Google has invested, has started offering the Personal Genome Service to "provide health reports on 254 diseases and conditions" for slightly less than \$100. But the U.S. Food and Drug Administration in November 2013 ordered the company to halt the sales of its saliva collection kit due to concerns over the accuracy of its genetic examinations.

People need to be aware that the results of genetic testing only have a high degree of correlation with the risks for certain diseases. 遺伝子に加えて、食事、喫煙、飲酒、ストレス、⁽⁷⁾睡眠不足、運動不足といった後天的要素が、癌を含むいくつかの病気の原因である。

Users of genetic testing services should know that the discovery in genetic examinations of the presence of irregularities that raise the risk of developing certain diseases does not necessarily mean they will develop them.

So, it is not wise to rely solely on genetic testing. The results of testing may cause some people to be unduly pessimistic about their future. The providers of genetic testing services must be careful when explaining test results to people.

The providers also should handle data on individual examinees' genes with utmost care because they are personal information. Leakage of such data must be prevented at any cost. There are moves among testing institutes to use data from genetic testing for research purposes. There must be no lapses in the management of data.

The government needs to quickly set down rules to ensure the reliability of commercial genetic testing. At the very least, providers of such services should be required to make clear to users the purpose and limits of tests, their possible disadvantages and the scientific grounds of their clinical usefulness, as well as company policy on handling personal information including genetic data acquired from the test and the relevant information on testing institutes.

(出典 *The Japan Times* より)

Notes

genetic: relating to genes or heredity.

entrant: a person that enters or takes part in something.

entrust: to make somebody responsible for doing something.

commercialization (*n.*) < commercialize (*v.*): to use something to try to make a profit, especially
in a way that other people do not approve of.

swab: a piece of soft material used by a doctor, nurse etc. for taking a sample for testing.

saliva: the liquid that is produced in the mouth.

unduly: excessively, inappropriately.

examinee: a person who is being tested or who is taking an exam.

utmost: greatest, most extreme.

leakage: the spreading of secret information.

lapse: a small mistake caused by forgetting something or by being careless.

- (1) 遺伝子検査の最大の利点と最大の問題点を本文に即して日本語でそれぞれ1つずつ挙げなさい。
- (2) 遺伝子検査を提供する業者が留意すべき事を本文に即して日本語で3点挙げなさい。
- (3) 下線部 (ア) を英訳しなさい。

〔 II 〕 次の文章を読んで、下の問いに解答欄の範囲内で答えなさい。

Suna Siriak had just turned fifteen when he was hired as a cabin boy on board the SS *Max Havelaar*, a barge of light tonnage which navigated among the islands of the Sonde. The ship had just left Makassar for the isle of Timor when an atrocious drama completely changed the fate of its crew.

Siriak replaced Morok at the helm while he had his evening meal with the three other mates and the captain. Generally he was never gone for more than fifteen minutes. But after an hour he still hadn't come back, so Siriak went down to the mess to see what was going on. He found his five companions crippled with pain, poisoned by some preserved meat. They all died together before sunset.

The adolescent was too inexperienced to steer the ship.⁽⁷⁾ During the night he vainly tried to fight against sleep, but by the next day he had passed Timor, and the ship headed out into the Indian Ocean. Three days passed. He had to get rid of the cadavers which were putrefying in the heat. Then, in the middle of the fifth night, while he was sleeping, the little boat hit a reef. A jet of water shot into it, and the condemned vessel soon sank. Siriak threw himself into the ocean and floated on a trunk which he had hastily filled with various tools.

At dawn he set foot on an isle. It didn't take long for him to see it was deserted. Twenty minutes was enough to walk to the other side. There was no trace of human habitation that could let him hope the isle was known to sailors.⁽¹⁾ On the other hand, he did find a spring, and coconut, mango, and banana trees grew in abundance and would make it possible for him to survive.

Siriak hadn't read *Robinson Crusoe*, but there aren't very many ways to make do after a shipwreck. He took an inventory of his trunk and gathered up the bits of flotsam which the sea had thrown up on the sand. This harvest was meager except for a large box which contained nothing but mirrors. Siriak sat down on the shore and began to organize his life.

A few days had to pass before he truly understood the depth of the solitude to which he was condemned. Except for birds and insects there were no animals on the island. Siriak managed to capture several parrots which he tied to a branch with some rope. He let them struggle there until evening. As the sun was setting, he went up to them, stared at them with insistence, and pronounced his name, "Siriak,"⁽²⁾ a great number of times in a clear voice. Attentive, the parrots looked and listened without moving. Siriak gave them a few seeds and the next day repeated the lesson. After he had pronounced his name fifty times, he fed them again and let them go. Nothing happened for a few days, then one beautiful morning Siriak woke up, surprised to have heard himself called by his name. Perched on a branch a few

meters away, one of the parrots called out the boy's name several times. As one might guess, the outcome was everything Siriak might have hoped for, if not foreseen. By instructing one another, soon all the parrots on the isle were repeating Siriak's name from dawn until dusk.

In spite of the continual presence of his self which he was confined to by solitude, he struggled to remember that he also existed outside of his self, even though this might be as a mere object on the island.

And so the weeks and months flew by. Nothing came to trouble his solitary life. 時々彼は遠くに船や飛行機が通るのを見たように思ったが、それは幻影以外の何物でもなかった。^(*) Then one day he noticed the useless trunk that had floated onto the island, the one that contained only mirrors. There had to be a thousand of them, all cut up in the same shape. According to the barely legible words on the lid, they were being shipped to a framing shop called Melville. Siriak took out a half dozen and leaned them against some coconut trees. He saw himself reflected six times. Partly out of despair and partly out of boredom, he scattered them about^(*) the entire island. Leaning them against whatever he could, against trees, against rocks, between branches and leaves, he told himself that these mirrors might perchance be seen in the distance and catch the attention of a boat. Of course, nothing of the kind occurred.

Time passed and each day Siriak walked about his miniscule empire and saw in passing his omnipresent reflection at every turn in the path. Meanwhile, his parrots proclaimed his name in the perfumed breeze and the hot scent of the sun.

He died a few years later, perhaps of boredom. The mirrors which multiplied the island and its sole inhabitant had little left to reflect. But even when his body had entirely decomposed, and his bones mixed with the sand on the beach, for a long time afterwards on the entire island, generations and generations of parrots continued to cry out his name, and it reverberated forever.

(出典 *Sudden Fiction (Continued)* より)

Notes

SS: steamship.

tonnage: the size of a ship or the total weight that it carries in tons.

navigate: to sail on, over, or through an area of water.

atrocious: very cruel.

helm: a handle or wheel that is used to steer a ship or boat.

cadaver: a dead body.

putrefy: to be slowly destroyed by natural processes.

reef: a line of sharp rocks.

condemn: to give (someone/something) a severe punishment; (of circumstances) to force (someone) to endure or accept something unpleasant.

flotsam: floating pieces, parts, etc., from a ship that has been wrecked.

meager: very small in amount.

solitude: a state or situation in which one is alone.

parrot: a bright-colored tropical bird that has a curved bill and the ability to imitate speech.

attentive: paying careful attention to something.

solitary (*adj.*) < solitude (*n.*)

legible: clear enough to be read.

boredom: the state of being bored.

perchance: perhaps.

miniscule: very small.

omnipresent: present in all places.

decompose: to cause something to be slowly destroyed and broken down.

reverberate: to become filled with a sound.

- (1) 下線部 (ア) のような行為をするはめになった理由を、本文に即して日本語で簡潔に答えなさい。
- (2) 下線部 (イ) を和訳しなさい。
- (3) 下線部 (ウ) の行為が Siriak の死後どのような結果をもたらしたか、本文に即して日本語で簡潔に答えなさい。
- (4) 下線部 (エ) を英訳しなさい。
- (5) 下線部 (オ) のような行為をした理由として本文に挙げられているものを3つ、日本語で答えなさい。

〔Ⅲ〕 次の文章を読んで、下の問いに解答欄の範囲内で答えなさい。

Supermarkets are wasting thousands of tonnes of surplus food because subsidies for green energy make it cheaper to turn it into biogas than to donate it to hungry families, according to a leading charity.

The UK government is spending millions of pounds subsidising the construction and operation of anaerobic digestion plants that are converting up to 100,000 tonnes of edible food a year into biogas, FareShare said. The subsidies mean that retailers and their suppliers can dispose of surplus food much more cheaply by sending it to these plants rather than delivering it to charities.

Frank Field, the former Labour welfare minister who is leading an inquiry into food poverty, said that the subsidy system was "madness on stilts". He has called for it to be reformed to make donating surplus food the cheapest option for the industry. "We live in a country where people are hungry, yet we are using taxpayers' money to destroy edible food," he said. Mr Field's inquiry found that only 2 percent of the 300,000 to 400,000 tonnes of surplus food produced annually by the industry was redistributed to charities.

FareShare, which redistributes 5,000 tonnes of surplus food a year to 1,300 charities and community projects, said that the subsidies for anaerobic digestion could be in breach of a directive that requires waste to be reused where possible before being turned into energy.

Mark Varney, FareShare's director of food, said that anaerobic digesters were paid a subsidy worth £60 to £70 (\$100 to \$117) for each tonne of food they received. FareShare has to charge retailers and other companies £60 to £80 for each tonne of food they donate in order to cover its storage and distribution costs.

The donors also have to pay £20 to £60 a tonne to deliver the food to FareShare's depots. Mr Varney said: "Operators [of anaerobic digestion plants] receive an incentive that we don't get. I'm up against that economic obstacle when I talk to the food industry and they say, 'Well, actually, we have got an arrangement with this operator who comes and picks up the food.'"

He added that the government should match the subsidy for anaerobic digestion with support for the system of redistributing food. "The fact is, money talks in business. If I didn't have to charge the industry to take the food off them, it would be easier for us to persuade them to give us food."

Mr Varney said that FareShare had appealed to the government to create a fairer system of subsidies "but our understanding is it's not seen as a priority, which is clearly frustrating when there are five to seven million people in food poverty."

Anaerobic digestion plants received £29 million in subsidy in the year to March 2013,

according to the Department of Energy and Climate Change. There are 82 plants consuming 1.6 million tonnes of food waste a year. Another 213 plants have planning permission and are expected to consume an additional 3.3 million tonnes of food, according to the Anaerobic Digestion & Biogas Association.

WRAP, the government waste-reduction agency, offers cheap loans to encourage the construction of anaerobic digestion plants. An agency spokesman admitted that it was likely that some of the food sent to the plants was fit for human consumption but it did not know how much and did not have any plans to investigate the scale of the problem.

Tesco said that it had donated 2,300 tonnes of food to charity last year and wasted 56,000 tonnes in its shops and distribution centres. It initially claimed in response to questions that none of the wasted 56,000 tonnes had been suitable for human consumption because it had been damaged or had passed its "use by" date.

The supermarket chain later clarified this and said instead that "much of" the food had been unfit for human consumption. Some of it had gone past its "best before" date but could still have been safely eaten.

A Tesco spokesman said: "We are currently working with our charity partner, FareShare, to send food that is suitable for human consumption to people in need."

(出典 *The Times* より)

Notes

biogas: any gas fuel derived from the decay of organic matter.

edible: suitable or safe for eating.

stilt: one of a pair of long poles with platforms for your feet that you can stand on to walk high above the ground.

£ = pound: the monetary unit of the United Kingdom.

depot: a place where goods are stored.

consumption (*n.*) < consume (*v.*)

- (1) 下線部 (ア) と同じことを, より具体的に述べた部分(10 語)を本文中より抜き出さない。
- (2) 本文中では, 食品の残りを処分する 2 つの方法について述べられている。食品販売業者の負担するコストは, その 2 つの処分方法で食品 1 トンあたり最低何ポンドの差が生じるか, 答えなさい。
- (3) 下線部 (イ) を和訳しなさい。
- (4) 下線部 (ウ) と下線部 (エ) は, 本文中ではどういうものを意味しているか, それぞれ日本語で答えなさい。さらに, (ウ) と (エ) の違いから, 著者は最終的にどういうことが言いたいのか, 答えなさい。
- (5) anaerobic digestion とはどのようなプロセスか, 本文に即して日本語で答えなさい。