

英語問題紙

平成27年2月25日

自 9:00

至 10:20

答案作成上の注意

1. 英語の問題紙は1から12までの12ページである。
2. 解答用紙は①から②までの2枚である。
3. 解答はすべて解答用紙の指定された箇所に書くこと。
4. 問題紙は持ち帰ること。

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以下の英文を読んで問いに答えよ。

On her own initiative, the girl returns to the subject of nuclear weapons.

'Did *Niels Bohr share your uneasiness about the use to which the bomb
1) could be put?' she asks.

'And how! Indeed, I think he was more worried than any of us — sometimes almost terrified by the idea that a single country could monopolise the power of death. Did you know that he went to see *Churchill towards the
2) end of the war and urged him to give our nuclear secrets to the Russians?'

'To *Stalin?'

'Certainly! Churchill thought he was mad. He practically threw him out.'

'Not that it prevented the Russians from getting their own bomb.'

'No. Terror seeks an *equilibrium too. Even at the end of the war, with victory won, Niels was still just as worried about leaving the bomb exclusively in American hands. He expressed his deep concern — he even predicted the coming of the hydrogen bomb and our development of unlimited destructive power. He dreamed of an agreement between the great powers aimed at limiting the use of the new energy.'

Both men, one in the United States, the other in Europe, doubted that the
3) military secret would be kept for long. Once the book of nature has been opened, Bohr used to say, anyone can read it. And spies are there to supply the keys to reading it — to the highest bidder. Spies, *Einstein would say, who
4) must have done some physics. That's something, at least.

How could a worldwide catastrophe be avoided? That was the immediate question. Humanity wasn't ready to enter the nuclear age, Einstein thought. Everything had happened too suddenly because research had been accelerated by this cursed war, which had to be won at all costs. That being so, what? How should scientists behave now that they had suddenly, and contrary to all expectations, become so powerful? How should they react? How should they

respond to American and British politicians whose sole concern, at that stage of the war, was victory?

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On 16 July 1944 the first 'atomic bomb' was successfully tested in the New Mexico desert. On that occasion the director of the programme, *J. Robert Oppenheimer, is said to have quoted from the **Bhagavadgita*: 'I am become death, the destroyer of worlds.' Not long afterwards he would say, in a phrase with equally religious *connotations, that science had experienced sin. It was an admission.

5)

Einstein leaves his two friends in the house beside the sea and rejoins the girl. He closes the door behind him, still looking solemn, and brushes some grains of sand from his hair.

' あ ' the girl says.

'Yes, the following year. The bomb prepared for the Germans was eventually dropped on the Japanese. Believe it or not,

い '

' う '

' え '

He remains silent for a moment as if remembering that day, the first day in the new history of the world. It's a memory that doubtless haunts him often, even in his present state: the memory of the curse he bears. He will always go down in history as the father of the ultimate weapon of *annihilation — he, who dreamed of peace, friendship and international harmony.

Without his flash of inspiration in 1905, without his sudden vision of the energy concealed in matter, would Hiroshima have been destroyed? Human history follows paths and treads them only once. It's impossible to retrace our steps through such a jungle of causes and effects.

Another brain would doubtless have had the same idea a little later, we

6)

can be almost certain of that. Long displayed on the road of discovery, the violent suicide of matter was patiently awaiting its appointed hour.

Jean-Claude Carrière. *Please, Mr Einstein*. Vintage Books. 2007.一部改変.

*NOTES

Niels Bohr (1885-1962): a Danish scientist who made important discoveries in nuclear physics, especially discoveries about the structure of atoms. He won the Nobel prize for physics in 1922.

(Winston) Churchill (1874-1965): a British politician who was Prime Minister during most of World War II and again from 1951 to 1955. He is still remembered and admired by most British people as a great leader who made possible Britain's victory in the war.

(Joseph) Stalin (1879-1953): a Russian politician who was the leader of the former Soviet Union. He is now mainly remembered for his great cruelty. Thousands of political opponents were killed or sent to prisons in Siberia, and Stalin's secret police made ordinary people live in fear.

(Albert) Einstein (1879-1955): one of the greatest geniuses in the history of science. His theories led to new ways of thinking about space, time, matter, energy and gravity.

J. Robert Oppenheimer (1904-67): American theoretical physicist and science administrator, noted as director of the Los Alamos laboratory during the development of the atomic bomb.

Bhagavadgita: it means 'the song of the Lord', which is famous for the religious and philosophical dialogue between the beloved Lord Krishna and the human prince Arjuna on the eve of a great battle. It describes how the god Krishna gives spiritual enlightenment to the warrior Arjuna, who realises that the true battle is for his own soul.

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equilibrium: a state in which opposing forces or actions are balanced so that one is not stronger or greater than the other

connotation: an idea suggested by a word in addition to its main meaning
annihilation: the destructive action or process of rendering something out
of existence

問 1. 下線部 1) について, この発言は誰に向けられたものか。人名を本文中から原語のまま抜き出せ。

問 2. 下線部 2) について, なぜ彼はこのような行動を取ったのか, 本文に即して分かりやすく日本語で説明せよ。

問 3. 下線部 3) について, both men が指す 2 人を本文中から原語のまま抜き出せ。

問 4. 下線部 4) の意味として最もふさわしいものを下記のア～エから 1 つ選び, 記号で答えよ。

ア) to those expressing the highest feeling of morality

イ) to those having the greatest knowledge of physics

ウ) to those paying the greatest amount of money

エ) to those showing the highest understanding of nature

問 5. 下線部 5) について, どういうことか本文に即して分かりやすく日本語で説明せよ。

問 6. 空欄 ~ のそれぞれに文脈から考えて最もふさわしい文を下記の a) ~ d) から 1 つ選び、記号で答えよ。ただし、同じ文を複数回使うことはできない。

- a) And then came Hiroshima?
- b) I first heard the news on the radio like everyone else.
- c) It seems I called it a disaster.
- d) You took it badly?

問 7. 下線部 6) について、この 3 行の趣旨は何か。日本語で本文に即して 90 ~ 120 字の範囲で分かりやすく説明せよ。

2 以下の英文を読んで問に答えよ。

It is common knowledge that washing hands is an important way to keep from getting sick and prevent the spread of germs and bacteria. Most people wash their hands several times a day. Not surprisingly, then, there is a large market for hand soaps, and companies that make these soaps will do everything they can to convince shoppers that their product is superior to all the rest. One strategy has been to produce liquid “antibacterial” soaps. For those especially concerned about cleanliness, these may have a great appeal because any soap that effectively kills bacteria would seemingly be an improvement on the plain bar of soap used in generations past. Probably for this very reason, it is believed that close to 75% of hand soaps in the United States claim to be antibacterial. Moreover, antibacterial products are not limited to just hand soaps. Over a thousand personal care products, such as those for facial cream, toothpaste, makeup and even skin medicine are advertised as antibacterial.

For years, however, the U.S. Food and Drug Administration (FDA) has questioned the effectiveness of the antibacterial soaps, suggesting that they do not provide any greater (1) than washing with “regular” soap and water. It has even recently requested that the makers of antibacterial hand soaps prove that they are more effective than others. The Administration’s doubts are understandable. Whatever the product, in order to sell more, companies will almost always boast about their miraculous powers. Sadly, all too often these claims are simply not true. For example, despite what the makers of soft drinks might say, there is no scientific evidence that drinking sodas containing the ingredient *dextrin can help one lose weight. Moreover, those planning for a heavy night of drinking should think twice if they believe having an energy drink with turmeric (*ukon*) before going out will save them from feeling awful the next morning; they are almost certainly going to be disappointed. The “miracle” ingredients in these products are usually anything

but miraculous. Shoppers, of course, are usually intelligent enough to recognize this. As such, they are probably not shocked to learn that so-called antibacterial hand soaps are not necessarily more effective at destroying bacteria than the soap their grandmother used to use.

However, while the “miracle” ingredients in most products — while ineffective — are mostly harmless, this may not be true for the antibacterial hand soaps. The primary ingredient in these soaps and other products is a chemical called triclosan, which supposedly targets and destroys bacteria. However, new studies have indicated that products containing the chemical may actually pose health risks. Most U.S. hospitals, in fact, no longer use products that contain the chemical. (Interestingly, these hospitals were among the first to use them, which helped make them popular to the general population.) Additionally, in 2017, the sale of products containing triclosan will be banned in the state of Minnesota. Moreover, it is not just health officials in the United States who are concerned about these products. The Canadian Medical Association has also called for them to be banned.

According to the FDA, one of the problems with products containing triclosan is that (2) of destroying bacteria, they may be assisting in the development of *stronger* bacteria that have greater resistance to antibiotics. It has also been suggested that triclosan could be harmful to the body’s immune system. Additionally, according to several reports, the chemical may cause negative changes in a person’s hormonal balance, with women and children particularly at risk. The problems are magnified because people are encouraged to wash their hands so often. For those using hand soaps containing triclosan, that means they are exposed to the chemical repeatedly, thus increasing their chances of becoming sick.

It is probably not surprising that many companies that make the hand soaps or other personal care products are not pleased with the FDA investigation, and insist that triclosan is safe. They point out that the FDA is not the first to conduct an investigation regarding the safety of the chemical.

Rather, a similar study was conducted in Europe, with results concluding that the chemical was safe and effective and there was no evidence that it had any effects on hormonal balance. Moreover, they note that even studies from the FDA have not actually confirmed that triclosan has a harmful effect on human health. Consequently, several companies, including the makers of a popular toothpaste brand, continue to sell products containing the chemical.

Other companies, (3), are beginning to produce personal care items from which the triclosan has been removed. One of the world's largest producers of consumer goods, for example, although claiming that studies regarding triclosan's safety are inconclusive, agreed to eliminate the chemical from its products in 2014. Another large corporation also claims there is not sufficient evidence to prove triclosan is dangerous, but now no longer uses it in baby care or beauty products. Moreover, it has announced its plans to remove it from all adult products in the near future.

It is often reported that the use of triclosan is strictly regulated in Japan. Indeed, the chemical is used in far (4) products available in Japan than in the United States. However, one can still find it in one of the leading brands of Japanese hand soaps and in a few other personal care products. Japanese producers of these goods are likely watching the debate over triclosan in the United States with great interest. It remains to be seen how they may be influenced, if at all, by the actions of Minnesota and the large American companies that have removed triclosan from their products. For the time being, however, for peace of mind and health of body, the best bet for the Japanese people may be to do what their grandparents did and wash their hands using plain soap and water.

*NOTES

dextrin : デキストリン, 糊精(こせい)

triclosan : トリクロサン

問 1. (1) ~ (4) の空欄に内容的にふさわしい英語をそれぞれ 1 語入れよ。

問 2. 以下の質問に英語で(45 語以上)答えよ。本文中の語句は何度使用しても構わない。但し、その際は 3 語以内の語句に限る。

According to the FDA and others, what are three possible dangers of antibacterial soaps?

問 3. 以下の質問に英語で(25 語以上)答えよ。本文中の語句は何度使用しても構わない。但し、その際は 3 語以内の語句に限る。

Why may the antibacterial soaps be most dangerous to those very concerned about staying clean?

問 4. 以下の質問に英語で(25 語以上)答えよ。本文中の語句は何度使用しても構わない。但し、その際は 3 語以内の語句に限る。

Read the advertisement below from Company A:

Save time and whiten teeth with ShinePaste! Using our product, you need brush your teeth only once a week and they will be whiter and healthier than ever before!

Do you think the author of the above passage would believe this claim?

問 5. 以下の Taro と Yumiko の会話の下線部にふさわしい英語を入れて完成させよ。それぞれ 20 語以上とすること。本文中の語句は何度使用しても構わない。但し、その際は 3 語以内の語句に限る。

Taro: Did you see that report on antibacterial soaps? I'm never going to use those again!

Yumiko: I think that's silly. People are overreacting. _____
_____.

Taro: Okay, but don't you see what a lot of the big companies are doing? For example, _____
_____.

Yumiko: Well, maybe you have a point. If the companies are doing that, maybe we should stop using those products.

3 以下の日本語を読んで下線部 1), 2) をわかりやすい英語に直せ。

愛は移ろいゆくものです。ロマンチックな夢は必ずしも実現するとは限りませ
1)
ん。思った通りにはいかないのです。日本に来てから感じるのですが、結婚が案
外と続いてゆく場合が多いのは不思議です。一般化は出来ませんが、そもそも最
初の期待があまり高くないのでしょうか。愛が結婚の唯一絶対の条件ではないの
かもしれません。しかしアメリカではそうはいきません。愛が消えれば結婚もお
わりです。失望が深すぎてもういっしょにはいられません。希望がなければいっ
2)
しょに暮らしても意味がないのです。自分たちは若すぎたのだ、とつくづく思う
わけです。そうなれば離婚しかありません。するとその後にもまた別の出会いが
待っています。そこで恋に落ち、再び結婚となります。将来に向けてまた新たな
夢が始まることとなります。