

1 次の文章を読み、各問いに答えなさい。

Plastic is really useful and we use it every day. But (①) happens after we throw it away is causing a big problem for our planet. It is thought that more than five trillion pieces of plastic are in the world's oceans and that it can (a)(it / break down / years / for / take / to).

Plastic is in lots of things we use from clothing to *crisp packets, and bottles to buckets. Making things from plastic is popular because they are many different types and it can be made into all sorts of shapes, colors and sizes. Plastics are man-made and can be produced from natural materials like coal and oil.

The first *synthetic plastic—plastic made entirely from man-made materials—was created over 100 years ago. It was called Bakelite and was invented by Belgian chemist Leo Baekeland in the early 1900s. Many thought Bakelite was the start of plastics (②) we know them today.

People can *pretty much do whatever they want with plastic. It can be colored or clear, thick or thin, strong or weak. This means a lot of different things can be made from it. If you look around your home or school, you'll find most things have plastic in them, including your pencil case, games consoles, and even clothing.

OK, so (b)(plastic / good / pretty / far / sounds)—and it is. The waterproof 5-pound *notes are neat and who doesn't like using glitter?! But the problem with glitter is (③) most of it isn't *biodegradable. It doesn't rot, like paper or food, so instead it can hang around in the environment for hundreds of years. Each year, 400 million tonnes of plastic is produced and 40% of that is single-use-plastic we'll only use once before it's *binned. Examples of (c)single-use plastic are carrier bags, drinks bottles and crisp packets.

(d)More than eight million tonnes of plastic enters the world's oceans each year and most of that escaped from land. It can be blown into the sea from ships and beaches, or carried there by river. Some also gets flushed down the toilet. Another issue is that not all plastic can be recycled. (e)This might be because of the way it is made up of or because it is too expensive or difficult to do. Some coffee cups, for example, have a waterproof lining which can made them difficult to recycle. Every day seven million cardboard coffee cups are thrown away but only one in 400 are recycled.

Experts think that by 2050, the amount of plastic in the ocean will weigh more than the amount of fish in the ocean. All animals, (④) they live on land or in the sea, can be hurt by plastic. They can get trapped in bigger items such as carrier bags or food packaging. Birds, fish and shellfish can mistake plastic for food (⑤) it has broken down to smaller pieces. One in three turtles, and around 90% of seabirds, have eaten it. They can't digest plastic so their stomach can become full, meaning they don't have room for actual food. Each year, (f)100,000 animals in the sea are killed by plastic.

(Adapted from <https://www.bbc.co.uk/newsround/42810179/> 25 Feb 2019)

[注] *crisp packets お菓子を包むもの *synthetic plastic 合成プラスチック *pretty much ほとんど *note 紙幣
*biodegradable 生物分解性の *binned ゴミ箱に捨てられる

問1 空所①～⑤に当てはまる最も適切な語句を、それぞれ(ア)～(エ)の中から1つ選び記号で答えなさい。

①：

(ア) what (イ) as (ウ) that (エ) when

②：

(ア) which (イ) as (ウ) that (エ) when

③：

(ア) which (イ) as (ウ) that (エ) what

④：

(ア) whether (イ) which (ウ) where (エ) when

⑤：

(ア) whether (イ) which (ウ) where (エ) when

問2 下線部(a)の()内の語句を、それぞれ文意に合うように並べ替えなさい。

問3 下線部(b)の()内の語句を、それぞれ文意に合うように並べ替えなさい。

問4 下線部(c)はどのようなものか、それを説明している箇所を本文から抜き出さなさい。

問5 下線部(d)を和訳しなさい。

問6 下線部(e)は何を指すか。日本語で具体的に説明しなさい。

問7 下線部(f)の数字の読みを英語で表しなさい。

問8 本文の内容に合っているものを、次の(ア)～(オ)の中からすべて選び記号で答えなさい。

(ア) 最初の合成プラスチックは石炭や石油のような天然素材から造られた。

(イ) プラスチックは透明なものもつくることができる。

(ウ) 筆箱から服に至るまでプラスチックが利用されている。

(エ) プラスチックは海鳥の約90%を死に至らしめている。

(オ) 専門家は海洋のプラスチックの量が魚の量を超えていると考えている。

- 2 次の文章中の空所 ① ～ ⑤ に当てはまる最も適切な英文を、それぞれ (ア) ～ (オ) の中から1つずつ選び記号で答えなさい。

For decades anatomy textbook taught that the two most complicated systems in the body—the brain and the immune system—existed in almost complete isolation from each other. *By all accounts, the brain (①), and the immune system focused on defending it. In healthy individuals, the *twain never met. Only in certain cases of disease or trauma (②), and when they did do, it was to attack.

But in recent years a rush of new findings has revolutionized scientists' understanding of the two systems. *Mounting evidence indicates that the brain and the immune system interact routinely, both in sickness and in health. The immune system can (③), for example. It also plays a role in helping the brain to cope with stress and aids such essential functions as learning and social behavior.

What is more, the immune system might (④) that detects *microorganisms in and around the body and informs the brain about them, much as our eyes relay visual information and our ears transmit auditory signals. In other words, the brain and the immune system (⑤) more often than previously thought—they are thoroughly *entwined.

(Adapted from <http://www.nikkei-science.com/p=57731/> January/2019)

- [注] *by all accounts だれに聞いても *twain = two *mounting ますます増える *microorganism 微生物
*entwine からみ合わせる

- (ア) did cells from the immune system enter the brain,
(イ) do not just cross paths
(ウ) help support an injured brain
(エ) qualify as a kind of surveillance organ
(オ) focused on the business of operating the body

3 次の英文の下線部の意味に最も近い語句を、それぞれ (ア) ~ (エ) の中から 1 つ選び記号で答えなさい。

問 1 I will hand in my resignation.

- | | |
|------------|-----------|
| (ア) refuse | (イ) write |
| (ウ) submit | (エ) tell |

問 2 She gave up her attempt once and for all.

- | | |
|----------------|----------------|
| (ア) moderately | (イ) definitely |
| (ウ) willingly | (エ) hesitantly |

問 3 Ken is hardly ever late for school.

- | | |
|------------------|-------------------|
| (ア) rarely | (イ) frequently |
| (ウ) occasionally | (エ) unfortunately |

問 4 He is quite at home in Japanese literature.

- | | |
|-----------------|----------------------|
| (ア) fond of | (イ) familiar with |
| (ウ) informed in | (エ) knowledgeable to |

問 5 He did his best at the expense of his health.

- | | |
|-----------|-----------|
| (ア) value | (イ) harm |
| (ウ) sake | (エ) price |

4 次の英文の下線部(ア)～(エ)のうち、間違いのあるものを記号で答え、正しい語(語句)を答えなさい。

問1 When she was (ア)infected with flu, she was (イ)worried and (ウ)at loss for (エ)what to do.

問2 The medicine, (ア)if (イ)taking too much, (ウ)does you more harm than (エ)good.

問3 As (ア)long as I know, neither Tom (イ)nor Jane (ウ)has (エ)anything to do with the scandal.

問4 The traffic is so (ア)busy outside the hotel (イ)that I can (ウ)hardly sleep a sound (エ)sleep.

問5 It is (ア)interesting to compare the (イ)manners of Japan (ウ)with (エ)that of the UK.