

2025 年度 消費情報環境法学科

英 語

〔自己推薦 A O (A)〕 14-J 1

注 意

1. 監督者の合図があるまで問題冊子は開かないでください。
2. 解答はすべて解答用紙のきめられた箇所に記入してください。

[I] プラスチック汚染について書かれた以下の文章を読み、設問に答えなさい。

If you think humanity's addiction to fossil fuels is hard to shake, it's nothing compared to the strength of our plastics habit.

(中略)

Plastics present the world with three separate but major problems: litter, emissions and health. Each has different solutions, ranging from the straightforward, to the dauntingly difficult.

Litter is perhaps the easiest to tackle, as my colleague Adam Minter has written. Nearly two-thirds of the plastic trash flowing into the world's oceans comes from just
(1) eight countries, mostly middle-income nations in Asia. The U.S., European Union and Japan put together account for just 0.7% of the total, a lower burden than Haiti.

This is essentially an issue of waste management. Fixing that might be (①)
(2) said than done in developing countries where municipal authorities are overworked and cash-strapped, but there are plenty of examples of cities — from Tacloban and San Fernando in the Philippines, to Thiruvananthapuram and Chennai in India — that (②) made real progress.

There's no shortage of laborers in such places seeking work as garbage-pickers. What's missing is the money to pay and organize them properly. A global plastics treaty needs (③) mandate funding from rich nations. Developing countries can help themselves, too, by (④) producer-pays policies, under which manufacturers pay a fee for the disposal of their products. These have been highly effective in Europe, (⑤) about 40% of plastic packaging is recycled. They're already being adopted in less wealthy parts of the world, particularly for electronic waste.

Emissions might seem more challenging, but the broader decarbonization of the global economy offers reasons for hope. (⑥) their high visibility, plastics represent a surprisingly small share of greenhouse gasses — about 1.8 billion tons out of 49.8 billion tons in 2019, or about 3.6% of the total. About 90% of that footprint comes from manufacturing them, rather than composting and landfill.

Better waste management is part of the solution here, too. Most of those manufacturing emissions come from burning carbon-rich fuel to slice and dice hydrocarbon molecules into resin polymer pellets and then burning more of it to heat, extrude and blow them into finished goods such as car tires, refrigerator shelves and shopping bags. The world is currently throwing (⑦) vast amounts of methane, however, by failing to capture the gas seeping from landfills, sewage, food scraps and agricultural residues.

India could use such biomethane to meet about 10% of its natural gas demand today and spend less money than it pays for imported LNG, according to the International Energy Agency. By 2040, that share rises to about two-thirds. There's a long road to reach that target: Globally, such biogas only accounts (⑧) about 1.2% of the energy we produce from fossil gas right now.

Several recent studies have argued that (㊦ using / ㊩ plastic production / ㊵ carbon-free / ㊶ improvements / ㊷ could / ㊸ process / ㊹ almost or entirely / ㊺ make / ㊻ such biogenic gas). That's not going to happen unless global rules impose costs and mandates on the 800-odd oil refineries where our resin pellets are produced, however.

All this suggests there's grounds for progress. The situation with health, however, is more demoralizing and confusing.

(4) Part of the problem is that we just don't know how much damage plastics are doing. Despite alarming evidence of the way they accumulate in oceanic flotsam, the guts of animals, and even the internal tissues of people and fish, we're still in the dark about the true scope of the problem or whether it's a health problem at all.

Even so, a precautionary principle seems sensible. Microbeads, the tiny polymer particles used in many cosmetics, are banned in many (but not all) countries. That should be extended worldwide.

(中略)

Minimizing usage of each chemical on a global scale would be worthwhile. Beyond that, we should set a long-term global cap on plastics production and give each country

a target share as we now do with carbon emissions.

For the most part, we worry too much about plastics and underestimate (⑨) useful and beneficial they are. We're not going to be able to turn the clock back on the fact that modern society is built on complex chemicals.

Nonetheless, we should tackle this issue head-on. More than half of the toxic mercury in our soils, waters and air today was emitted before 1900. Plastics, similarly, don't easily flush themselves out of the environment. (⑩) we delay too long before acting, we may be left with a legacy that will take generations to solve.

[単語・語句解説]

fossil fuels : 化石燃料, litter : (公共の場に散らかされた) ごみ, emissions : (温室効果ガスの) 排出, dauntingly : おそろしいほど, municipal authorities : 自治体当局, strapped : 不足した, mandate : 義務づける, decarbonization : 脱炭素化, greenhouse gasses : 温室効果ガス, footprint : フットプリント (「カーボンフットプリント」のこと。製品単位の温室効果ガス排出量。原材料調達から廃棄・リサイクルまでの全過程を含む。), composting : 堆肥化, landfill : 埋め立て, hydrocarbon : 炭化水素, resin polymer pellets : 粒状の樹脂重合体 (粒状プラスチックのこと。粒状のものを成形してプラスチック製品となる。), methane : メタン, seep : しみ出る, sewage : 汚水, food scraps : 生ごみ, natural gas : 天然ガス (主成分はメタン), LNG : 液化天然ガス, biogenic : 生物起源の, refineries : 精製所, demoralizing : 士気をくじく, accumulate : 蓄積する, oceanic flotsam : 海洋漂流物, guts : 内蔵, precautionary : 予防, polymer particles : 重合体粒子 (粒子状プラスチックのこと。), mercury : 水銀

出典 : David Fickling Bloomberg, Plastic pollution is a growing problem. Here are some ideas on how to solve it, The Japan Times, May 2, 2024, p.8. (抜粋)

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問1 ①～⑩に入れる最も適切な語句を、それぞれ示された選択肢の中から一つ選んで書きなさい。

- ① (easy, easier, easiest)
- ② (have, has, is)
- ③ (to, of, for)
- ④ (introduced, introduce, introducing)
- ⑤ (where, when, which)
- ⑥ (Because of, As, Despite)
- ⑦ (from, away, in)
- ⑧ (of, for, on)
- ⑨ (why, what, how)
- ⑩ (Though, If, Because)

問2 下線部(1)を日本語に訳しなさい。

問3 下線部(2)にあるように、プラスチックごみ問題の本質は廃棄物管理である。解決のためには何が足りないのか、問題文にある見解を日本語で説明しなさい。

問4 下線部(3)について、「このような生物起源ガスを利用したプロセスの改善により、プラスチック生産をほとんど、あるいは完全にカーボンフリーにできる」という意味になるように、㊦から㊬を適切に並び替え、㊦から㊬の記号で答えなさい。

問5 下線部(4)を日本語に訳しなさい。

問6 プラスチック汚染の3つの問題 (litter, emissions and health) のうち、3番目の「health」の具体的な解決案として述べられていることを100字程度の日本語で説明しなさい。

[Ⅱ] 次の日本語の文章の意味になるように、括弧内に書かれているアルファベットから始まる適切な英単語を書きなさい。

- (1) 私は彼らの知識を活用したい。

I would take [a] of their knowledge.

- (2) あなたがたの成功を確信している。

I am [s] of your success.

- (3) 私たちは偶然同じ部活に入った。

We [h] to join the same club.

- (4) 雨がたくさん降らない限り、この地域は水不足に苦しむだろう。

This area will suffer from a water shortage [u] there is lots of rain.

- (5) 大気汚染物質の量を計測する装置に異常はない。

There is nothing [w] with the equipment that measures the amount of air pollutants.

[Ⅲ] 次の文章を英語に訳しなさい。

- (1) 駅に着いたときには、予約した大阪行きの電車はすでに出発していた。

- (2) 家に帰ったらすぐに手を洗うべきである。

- (3) 法律を学べば学ぶほど、社会問題に興味が湧いてくる。