

I 次の英文を読み、(1)～(10)の設問について最も適切なものを選択肢1～4から選び、その番号を解答用紙A(マークシート)の解答欄 (1)～(10)にマークしなさい。

Every new technology raises fears that some jobs will be lost and hopes that new jobs will be created. After the Industrial Revolution, for example, workers were afraid that they would be replaced by machines. But their fears were largely unnecessary. Although some jobs disappeared, the new factories created many new types of jobs as workers were needed to build, maintain, and operate the machines in the factories. Society adapted, the economy grew, and living standards rose.

Advances in artificial intelligence (AI) mean that a new wave of technological change is fast approaching. As the economist Dhaval Joshi notes, this time the jobs at risk are going to be those in the service sector, but it is not going to be the low-paid jobs—such as cleaners or cooks—that will disappear. “The hard tasks that are difficult for humans but easy for AI are those that require complex *algorithms and recognition of patterns in large quantities of data,” says Joshi. “Beating a grandmaster at a game of chess, calculating risk in financial investments, translating a report from English to Chinese are what AI does best,” he adds. The late 20th-century army of machines wiped out well-paid jobs in manufacturing; the new army is about to wipe out well-paid jobs in the service sector. But humans are still more innovative than machines, which remain only children of our brains. In the age of AI, there will still be rich rewards for the creative. They will be fewer in number, so the general trend of recent years—high rewards for those at the top, a shrinking of the middle class, and an increase in low-paid, insecure jobs at the bottom—will expand. AI will produce a new industrial revolution, which will lead to a (1) growth, so we should welcome it.

The last big period of technological change was accompanied by political change that ensured that the workers who produced the goods could also buy them. Full employment policies, progressive income tax, strong trade unions, and government spending on education, health care, and other welfare programs ensured that (5) this was the case. In the private sector, the highly successful industrialist Henry Ford may have been a capitalist interested primarily in profit, but he realized that there was no point in (2) cars that his workforce could not buy. Unlike his competitors, he paid ordinary workers a wage of five dollars per day, which was considered very high and was (3) in the early 20th century. (8) Ford’s 21st-century counterparts do not seem to have learned his lesson or the lesson that political change should go hand in hand with technological disruption. Most bankers, oil company executives, and IT entrepreneurs who attended the elite 2017 World Economic Forum (WEF) in Switzerland, for example, did not support higher minimum wages or higher taxes to pay for more education and training for workers whose jobs might be lost to new technology.

The WEF is trying to get leaders to rethink the idea that economic growth will follow if nothing is done to interfere with market forces. It points out that it is not much of a success to have an expanding economy if all the fruits of growth go to (4). It notes that median incomes in 26 advanced economies fell by 2.4% between 2008 and 2013. The WEF argues that the old system in which growth ensured higher living standards has been weakened as a result of technological change, global integration, free market policies, and immigration. Instead of ranking countries by *GDP, the WEF uses its own inclusive development index. Countries that do well on the WEF index tend to have

higher taxes, generous welfare systems, and a stronger role for organized labor. These policies soften the blow of technological change. It is no surprise that Norway, Luxembourg, Switzerland, Iceland, Denmark, Sweden, and the Netherlands fill the top seven places. The UK is 21st, the US 23rd.

[Adapted from an article in *The Guardian Weekly*]

注) *algorithms: processes or sets of rules to be followed in calculations or other problem-solving operations, especially by a computer

*GDP (Gross Domestic Product): 国内総生産

(i) In the context of this passage, choose the most suitable expression to fill in each blank.

(1) The answer is: .

- 1 burst of
- 2 destruction of
- 3 drop in
- 4 myth of

(2) The answer is: .

- 1 giving up
- 2 holding back
- 3 looking on
- 4 turning out

(3) The answer is: .

- 1 a tradition
- 2 quite common
- 3 unheard of
- 4 without profit

(4) The answer is: .

- 1 the development of AI
- 2 the few and not the many
- 3 the middle class alone
- 4 the service sector

(ii) In the context of this passage, choose the best answer for each question.

(5) Choose the answer that best expresses the meaning of the underlined phrase ⁽⁵⁾“this was the case.” The answer is: .

- 1 There would be extremely high rewards for workers at the top
- 2 Ordinary workers would be able to afford what they made
- 3 Policies guaranteed that machines would not replace workers
- 4 Technological change would damage workers' living standards

(6) With which one of the following would the author agree? The answer is: .

- 1 The attempt to replace service-sector workers with AI must be resisted
- 2 We should respond to AI as we did to 20th-century technological change
- 3 Humans are better than AI at recognizing patterns in large amounts of data
- 4 Routine service jobs such as cleaning and cooking may be wiped out by AI

- (7) Who will be rewarded most in the new economic environment the passage describes? The answer is: .
- 1 those who can innovate and create
 - 2 those whose jobs machines can do
 - 3 those who are better than AI at manufacturing
 - 4 those who are helped by generous welfare policies
- (8) Which one of the following best explains the meaning of the underlined phrase ⁽⁸⁾“Ford’s 21st-century counterparts do not seem to have learned his lesson”? Many of today’s corporate leaders .
- 1 rarely favor higher wages for ordinary workers
 - 2 often care if workers can purchase what they produce
 - 3 are interested primarily in workers’ welfare, not profit
 - 4 are responding innovatively to technological change
- (9) Which one of the following **CANNOT** be inferred from the rankings of the UK and the US on the WEF index? The answer is: .
- 1 These countries have lower taxes, less generous welfare systems, and weaker organized labor than those in the top seven
 - 2 The WEF has convinced leaders of the UK and the US that they must rethink the old system if they want to succeed
 - 3 The UK and the US believe that market forces will produce economic growth if the market is left to itself
 - 4 Technological change will hurt workers in these countries more than workers in Norway and the other countries mentioned
- (10) The main reason that the author mentions Norway, Luxembourg, Switzerland, Iceland, Denmark, Sweden, and the Netherlands is to show that these countries .
- 1 have higher taxes to promote global integration
 - 2 have suffered from weakened free market policies
 - 3 have policies that protect their standards of living
 - 4 have had their way of life changed by immigration

- II 次の英文を読み、(11) ～ (20) の設問について最も適切なものを選択肢 1 ～ 4 から選び、その番号を解答用紙 A (マークシート) の解答欄 ～ にマークしなさい。

Decades ago, work was a major source of friendships in America. We took our families to company picnics and invited our colleagues to our houses for dinner. Now, work has become more of a place to do business. We go to the office to be efficient, not to form friendships. We have plenty of productive conversations but fewer meaningful relationships.

In 1985, about half of Americans said that they had a close friend at work; by 2004, this was true for only 30 percent. In several national surveys of graduating American high school students, the proportion who said it was very important to find a job where they could make friends dropped from 54 percent in 1976 to 41 percent in 2006. We may start companies with our friends, but we don't become friends with our co-workers. Americans may increasingly focus their efforts on forming friendships outside of work, but this is not the norm around the world. For example, Americans recently reported inviting only 32 percent of their closest colleagues to their homes, whereas people in Poland reported 66 percent and those in India reported 71 percent.

Why are Americans so determined to business today?

The economic explanation is that long-term or lifetime employment has largely disappeared. Instead of spending our careers with one company, Americans expect to move on every few years. Since we don't expect to be in one place forever, we don't take the time or make the effort to form friendships. We view co-workers as a temporary presence in our lives, greeting them politely, but keeping them at arm's-length distance. We reserve our real friendships for outside of work. Often, we treat colleagues the way we would treat strangers we might sit next to and have a conversation with on an airplane or a long-distance train: they become ⁽¹⁴⁾ "single-serving friends."

Some observers blame the rise of flexible working hours and working from home. When more people are working remotely, we have fewer chances for the face-to-face encounters that are so critical to friendships. But a recent study found that as long as people were in the office at least two and one half days per week, "telecommuting had no generally negative effects on the quality of workplace relationships." Still, technology affects relationships. When we're constantly old friends on social media—and we can visit them anytime—why bother making new ones? Being connected to the Internet round the clock, we face a growing shortage of time, where the pressure to get work done outweighs the desire to socialize: we become slaves to our 24-hour schedules.

The sociologist Max Weber argued that *the Protestant Reformation had a peculiar effect on American work. Leaders of that Reformation believed that hard work in any job was a duty demanded by God. Some went even further, arguing that people should avoid socializing while working, as attention to relationships and emotions would distract them from productively doing God's will. Over time, these ideas influenced Protestants, who came to view work as a place in which productivity was more important than relationships. Protestant men in particular were taught that work was a serious activity not to be mixed with socializing. For much of the 20th century, American workplaces were largely designed by Protestant men. Yet in recent years, America has become noticeably less Protestant, falling from about 70 percent in the 1950s to 37 percent in 2014. The number of Protestant CEOs has

fallen, too. Racial and gender diversity at work is now more common and even (13). Business culture has changed. Why, then, does the Protestant work ethic persist?

Regardless of our gender, race, or religion, generational shift has reinforced the idea that the workplace is mainly a place to conduct business. The value placed on leisure time has increased steadily. In a recent survey, 31 percent of *millennials said they highly valued more than two weeks of vacation time. When we see our jobs primarily as a means to leisure, it is easy to convince ourselves that efficiency and productivity are most important so that we have time for friendships outside work.

But we may be underestimating the impact of workplace friendships on our happiness—and our effectiveness. Jobs are more satisfying when they provide opportunities to form friendships. When friends work together, they're more trusting and committed to one another's success. Companies like Google and Facebook now provide opportunities and facilities for employees to share games, exercise, and meals—and research suggests that playing and eating together are good ways to promote workplace cooperation.

[Adapted from an article in *The New York Times*]

注) * the Protestant Reformation: 宗教改革

* millennials: ここでは「1982年～2000年に生まれた世代」を意味する

(i) In the context of this passage, choose the most suitable expression to fill in each blank.

(11) The answer is: (11).

- | | |
|-------------------|---------------|
| 1 get down to | 2 go out of |
| 3 make friends in | 4 put up with |

(12) The answer is: (12).

- | | |
|-----------------------|----------------------|
| 1 behind the backs of | 2 in touch with |
| 3 on the phone to | 4 without benefit of |

(13) The answer is: (13).

- | | |
|---------------------------|--------------------------|
| 1 actively disapproved of | 2 considered out of date |
| 3 disliked by men | 4 taken for granted |

(ii) In the context of this passage, choose the best answer for each question.

(14) The expression ⁽¹⁴⁾“single-serving friends” implies all of the following **EXCEPT**:
(14).

- 1 We only share part of our lives with them
- 2 We talk with them for a specific purpose
- 3 We tend to ignore them to avoid trouble
- 4 We don't allow the friendship to deepen

- (15) Which one of the following does the economic explanation for the decline in workplace friendships include? The answer is: .
- 1 The Protestant work ethic has all but disappeared today
 - 2 Companies are encouraging workers to share meals at work
 - 3 Workers expect to change jobs several times in their lives
 - 4 New technology relieves pressure on workers to get work done
- (16) How did Max Weber explain the American attitude to work? The answer is: .
- 1 It was related to the American practice of slavery
 - 2 It was based on the duty a worker owed to the employer
 - 3 It was firmly rooted in the Protestant Reformation
 - 4 It was in contrast to the American attitude toward religion
- (17) Which one of the following is **TRUE** about millennials' attitude toward work? The answer is: .
- 1 They like their leisure time, so they place great value on work friendships
 - 2 The purpose of work is to ensure there is enough time to enjoy life outside work
 - 3 Life is made up of little more than just socializing with colleagues from the office
 - 4 Lifestyle choices can convince them that a joyful attitude toward work is normal
- (18) With which one of the following does the author agree? The answer is: .
- 1 Participating in activities with colleagues in the company can nurture better workplace relationships
 - 2 Although it is regrettable that fewer American workers form friendships at work, it cannot be helped
 - 3 Younger workers tend to put more effort into making friends at work than workers from the older generation do
 - 4 Full-time employees should keep their jobs as long as they can maintain a polite distance from their colleagues
- (19) Choose one statement that reflects the author's view of workplace friendships. The answer is: .
- 1 They promote competition among workers
 - 2 They distract workers from their duties
 - 3 They waste valuable time in the workplace
 - 4 They increase workers' job satisfaction
- (20) What is the most appropriate title for this passage? The answer is: .
- 1 Friends at Work: How and Why American Attitudes Have Changed
 - 2 Positive Views of Socializing in the Workplace: The Religious Origins
 - 3 How Changes in Employment Policy Have Influenced Young Workers
 - 4 Why American Business Should Discourage Social Interaction at Work

Ⅲ 次の英文を読み、(21)～(31)の設問について最も適切なものを選択肢1～4から選び、その番号を解答用紙A(マークシート)の解答欄 (21) ～ (31) に、マークしなさい。

When John Sauven, executive director at Greenpeace UK, heard a woman complain on the radio that supermarket croissants were cheaper to buy wrapped in plastic than paper, he was so startled he went straight to his local Co-op. “It was true. If I bought two croissants in a brown paper bag, it was 79 pence each, and if I bought them in a big plastic container it was 63 pence each. And I just thought... this is ⁽²⁴⁾a complete failure of the system.”

The failure, of course, goes far beyond croissants. From the 300,000 tonnes of clothing the UK sent to rubbish dumps last year to the 7 million coffee cups we throw out each day, the scale of our throwaway habits is startlingly clear. (21) are the impacts. Images of bags and bottles washed up on beaches, or sea life tangled in plastic nets, are evidence of the Ellen MacArthur Foundation’s now familiar prediction that the oceans will contain more plastic than fish by 2050.

The role of business in addressing this crisis has become the subject of fierce debate in industry and policy circles. And that was clearly on show at a recent round-table meeting, sponsored by Suez, a recycling and resource management company. A key idea under discussion was the “circular economy,” a model that aims to keep resources in a continuous, eco-friendly cycle, rather than send them to the dump after first use. Sauven argued that without greater ambition and more radical change from business, the circular economy risked becoming another ⁽²⁶⁾buzzword. “We need to make sure this doesn’t just replace ‘sustainability’... and that we don’t keep creating words which don’t actually mean very much,” Sauven said. “What we’re talking about is not just ⁽²⁷⁾tinkering with the system, we’re talking about a much more universal shift.”

A particularly critical issue for the round table was the release of a new packaging plan by Coca-Cola. The soft drinks giant has become a symbol of big business’s contribution to the waste problem ⁽²⁸⁾thanks in part to a high-profile campaign by Greenpeace, which claims the company generates more than 100 billion plastic bottles a year. Coca-Cola has promised to increase the recycled content of its bottles to 50% by 2020 and to research the impact of deposit return schemes (DRS), in which consumers are asked to pay a refundable deposit on cans or bottles. It has also launched a campaign to encourage people to recycle and to stop littering.

For Carina Millstone, executive director at food waste campaign group Feedback, these pledges missed the true scope of the change needed to create a sustainable society. In fact, she argued, the resource-wasting, environment-damaging, consumption-based business model of global corporations was fundamentally at odds with the needs of the planet. New business models that promote goods that last longer are needed instead. Such a transformation would require a “re-regionalization of economies,” away from the low-cost globalized production model that has made it cheaper, for example, to buy a new pair of shoes than repair old ones, she said. “We used to have *cobblers all over the place. We don’t any more.” Millstone is not alone in seeing a “local, vibrant economy” as key to solving an integrated set of challenges to our resources and society. Already in the UK we can find many “repair cafes,” which provide tools, materials and advice to local people wanting to fix anything from bicycles to *crochery.

But can this community approach drive change fast enough? David Palmer-Jones, chief executive of Suez UK, which processes around 9 million tonnes of waste per year, was doubtful. “What we fail to recognize is the scale,” he said. “Local initiatives are fantastic to show what can be done... but to get scale and get speed of change we require government intervention.”

Rauno Raal, who runs Estonia’s hugely successful DRS, argued that his country offered a useful lesson. Since 2005, Estonian customers have paid a deposit on every bottle of cola they buy. Last year, 75% of cans and 87% of PET bottles were returned. The scheme was only made possible by government action. “The discussion here is exactly the same as in Estonia 12 years ago. Everyone was fighting against the return scheme. The government asked all the producers and retailers to discuss it and said, very clearly, ‘OK, you don’t want a DRS, then we will start one for you.’ ” But if the government is key, citizens are as well, added Raal, saying that personal values were (22) to changing consumption patterns and conserving resources.

Adam Lusby, lecturer in circular economy implementation at the University of Exeter, (23). Consumers—and consumption—were the wrong target, he said. “We don’t need to go on a big campaign to change people’s behavior, we just need to change how we design stuff.” That means better product design, but also a better designed economy, one which, as a first step, would tax non-renewable resources, such as the fossil fuels used to make plastic, rather than labor: “Instead of fighting over who does what, there are some good, healthy, macro-economic decisions that can be made,” Lusby said.

[Adapted from an article in *theguardian.com*]

注) *cobblers: 靴の修繕職人 *crockery: 陶磁器

(i) In the context of this passage, choose the most suitable word or expression to fill in each blank.

(21) The answer is: (21).
 1 Also like 2 Much as 3 Same for 4 So too

(22) The answer is: (22).
 1 exceptional 2 obliged 3 unrelated 4 vital

(23) The answer is: (23).
 1 anticipated 2 disagreed 3 retreated 4 supplemented

(ii) In the context of this passage, choose the best answer for each question.

(24) What does John Sauven mean by ⁽²⁴⁾ “a complete failure of the system”?

The answer is: .

- 1 The global eco-system is influenced by human activities
- 2 The prices of products are determined by the packaging
- 3 Everyday consumption needlessly creates plastic waste
- 4 Croissants are wrapped in different types of materials

(25) Which one of the following is most consistent with the idea of the “circular economy”? The answer is: .

- 1 Packaging should be designed to be re-used as much as possible
- 2 Organizations will now have to see the eco-friendly cycle as radical
- 3 Each company ought to be held responsible for its own product distribution
- 4 The round-table participants must solve the current waste problem

(26) What does John Sauven mean by his use of the term ⁽²⁶⁾ “buzzword”?

The answer is: .

- 1 A controversial idea that is not spoken but usually implied
- 2 An old idea that is out of fashion but still taught in schools
- 3 A new idea that is widely known but hardly used in economics
- 4 A trendy idea that is often discussed but rarely put into practice

(27) Which one of the following is closest in meaning to the expression ⁽²⁷⁾ “tinkering with”? The answer is: .

- 1 adjusting 2 assessing 3 constructing 4 delivering

(28) Which one of the following best explains the underlined phrase ⁽²⁸⁾ “thanks in part to a high-profile campaign by Greenpeace”? The answer is: .

- 1 Coca-Cola researched the impact of DRS in collaboration with Greenpeace
- 2 Coca-Cola became a symbol of the waste problem because of Greenpeace
- 3 Greenpeace praised Coca-Cola’s contribution to good waste management
- 4 Greenpeace has conducted a campaign to collect Coca-Cola bottles

(29) Which one of the following is Carina Millstone’s main point?

The answer is: .

- 1 Having an old pair of shoes repaired is cheaper than buying a new one
- 2 Skilled workers have disappeared because of the use of modern materials
- 3 It’s difficult to maintain local businesses without government support
- 4 A business model that values regional economic activities is required

- (30) Which one of the following was **NOT** mentioned at the round table?
The answer is: .
- 1 The consumption-based business model damages the environment
 - 2 Companies that use unsustainable resources should pay lower taxes
 - 3 Local initiatives can offer ideas to deal with the waste problem
 - 4 Initially, businesses in Estonia were reluctant to adopt the DRS
- (31) All of the following are **TRUE EXCEPT**: .
- 1 Coca-Cola expressed its intention to help solve the waste problem
 - 2 Most consumers have stopped buying products packaged in plastic
 - 3 Lusby thinks government action can make society more eco-friendly
 - 4 The circular economy offers a model for how resources can be used

IV 次の英文の空所 (32) ~ (38) に入る最も適切なものを選択肢 1 ~ 4 から選び、その番号を
解答用紙 A (マークシート) の解答欄 ~ にマークしなさい。

The practice of naming storms (tropical cyclones) began years ago in order to help in the quick identification of storms in warning messages because names are (32) to be far easier to remember than numbers and technical terms. Experience shows that the use of short, distinctive given names in written as well as spoken communications is quicker and less (33) to error than the older identification methods. These advantages are especially important in exchanging detailed storm information between hundreds of widely (34) stations, coastal bases, and ships at sea. In the beginning, storms were named (35); but in the pursuit of an organized and efficient naming system, meteorologists later decided to give storms names from a list (36) alphabetically. Thus, a storm with a name which begins with A, like Anne, would be the first storm to occur in the year. Since 1953, Atlantic tropical storms have been named from lists originated by the National Hurricane Center. The original name lists featured only women's names. In 1979, men's names were introduced. Since then they have (37) with the women's names. For example, the storms in 2015 were named as follows: Ana, Bill, Claudette, Danny, Erika, Fred, etc. Six lists are used in (38), so the 2015 list will be used again in 2021.

[Adapted from an article by the World Meteorological Organization]

- | | | | | |
|------|---------------|---------------|--------------|--------------|
| (32) | 1 committed | 2 disguised | 3 inspected | 4 presumed |
| (33) | 1 influential | 2 likely | 3 qualified | 4 subject |
| (34) | 1 disproved | 2 intruded | 3 refrained | 4 scattered |
| (35) | 1 arbitrarily | 2 orderly | 3 relatively | 4 thoroughly |
| (36) | 1 arranged | 2 compromised | 3 deleted | 4 opposed |
| (37) | 1 affirmed | 2 alternated | 3 perceived | 4 pretended |
| (38) | 1 dispute | 2 position | 3 rotation | 4 trial |

ここからは解答用紙 B を使用しなさい。

- VI 次の英文を読み、空所 (a) ~ (e) に入る、文脈の上で最も適切な名詞を解答欄に記入しなさい。下記の動詞群の名詞形のみを使用すること。ただし、~ing 形は使用してはいけない。また、同じ語を二回以上使ってはいけない。同じ語を二回以上使った場合、正解が含まれていてもその正解は得点にならない。

例： establish → establishment

dispose	explode	refer	request	survive
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In the event of nuclear war, the British government has at least one shelter hidden away in the very heart of London. It's called Pindar. It shares its name with an ancient Greek poet—but the historical (a) is frightening. It is said that Alexander the Great demolished the city of Thebes and left only Pindar's house standing because he was grateful for poems, which praised the Greek king's ancestor. The implication, of course, is that even if London were to be flattened in a nuclear attack, Pindar would remain intact. Whether the building has been specifically designed for this is not known. Only a few photos of the complex have ever been published—the fact that they were taken within Pindar was confirmed by the Ministry of Defence in its response to a (b) under the Freedom of Information Act. As well as offering ultra-safe military headquarters, Pindar makes possible the (c) of the government—it is part of state plans to ensure authority can prevail even during and after extreme catastrophes. But the capacity for military leaders and senior politicians to withstand disaster is one thing. What about the public they are meant to be protecting and representing? Are we prepared? For most of us there are no shelters at our (d). Although nuclear war or a small-scale nuclear (e) is unlikely, there is still value in being prepared just in case.

[Adapted from an article at *bbc.com*]

- VII 次の英文を読み、空所 (a) ~ (f) に入る、文脈の上で最も適切な動詞を下記の語群から選び、必要に応じて語形を変えて解答欄に記入しなさい。ただし各解答欄に記入する語は動詞一語のみとし、同じ語を二回以上使ってはいけない。同じ語を二回以上使った場合、正解が含まれていてもその正解は得点にならない。

bring	grow	hand	identify	limit	regard
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Cultural heritage generally (a) to mind artifacts, historical monuments and buildings, as well as archaeological sites. But the concept of cultural heritage is even wider than that. It has gradually (b) to include all evidence of human creativity and expression: photographs, documents, books and manuscripts, instruments, etc. Today, towns, underwater heritage, and the natural environment are also (c) as part of cultural heritage since communities (d) themselves with the natural landscape. Moreover, cultural heritage is not (e) to material objects that we can see and touch. It also consists of immaterial elements, such as traditions, oral history, performing arts, social practices, knowledge and skills (f) down from generation to generation within a community.