



〈H31131116〉

注 意 事 項

1. 試験開始の指示があるまで、問題冊子および解答用紙には手を触れないこと。
2. 問題は2～10ページに記載されている。試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚損等に気付いた場合は、手を挙げて監督員に知らせること。
3. 解答はすべてHBの黒鉛筆またはHBのシャープペンシルで記入すること。
4. マーク解答用紙記入上の注意
 - (1) 印刷されている受験番号が、自分の受験番号と一致していることを確認したうえで、氏名欄に氏名を記入すること。
 - (2) マーク欄にははっきりとマークすること。また、訂正する場合は、消しゴムで丁寧に、消し残しがないようによく消すこと。

マークする時	● 良	○ 悪	○ 悪
マークを消す時	○ 良	○ 悪	○ 悪

5. 記述解答用紙記入上の注意
 - (1) 記述解答用紙の所定欄（2カ所）に、氏名および受験番号を正確に丁寧に記入すること。
 - (2) 所定欄以外に受験番号・氏名を記入した解答用紙は採点の対象外となる場合がある。
 - (3) 受験番号の記入にあたっては、次の数字見本にしたがい、読みやすいように、正確に丁寧に記入すること。

数 字 見 本	0	1	2	3	4	5	6	7	8	9
---------	---	---	---	---	---	---	---	---	---	---

- (4) 受験番号は右詰めで記入し、余白が生じる場合でも受験番号の前に「0」を記入しないこと。

(例) 3825番⇒

万	千	百	十	一
	3	8	2	5

6. 解答はすべて所定の解答欄に記入すること。所定欄以外に何かを記入した解答用紙は採点の対象外となる場合がある。
7. 試験終了の指示が出たら、すぐに解答をやめ、筆記用具を置き解答用紙を裏返しにすること。
8. いかなる場合でも、解答用紙は必ず提出すること。

次の会話文を読み、下記の設問に答えよ。

Cindy and Pete are friends. They run into each other on the street.

Cindy: Hi, Pete! I haven't seen you around lately. How have you been?

Pete: Actually, I was in the hospital last month.

Cindy: Oh, dear! I'm sorry to hear that. Nothing serious, I hope.

Pete: It was more stupid than serious. I was playing Ultimate Frisbee and when I jumped to make a catch, I landed funny. I had to have surgery on my knee.

Cindy: That sounds terrible. (1) I would have visited you in the hospital.

Pete: (2) Actually, they kept me pretty busy with rehab. So, I can't say it was fun but at least I wasn't spending a lot of time bored in my hospital bed.

Cindy: When did you get out?

Pete: Two weeks ago. I'm walking around normally now, although the doctor warns me to wait a few more weeks before playing Frisbee again.

Cindy: (3) You definitely don't want to overdo it.

Pete: Enough about me! What have you been up to?

Cindy: Well, I think the last time we spoke I told you I was applying for a film-making internship in Venice.

Pete: Yes, I remember. Did that work out?

Cindy: Well, no, but I got an offer for an internship here in town that is right up my alley.

Pete: So it turned out all for the best. (4)

Cindy: Next week we're going to be shooting some footage of a baseball game at the university. 私はちようどそこでの会合に行く途中だった。 (A)

Pete: That's so cool! Maybe in the future you can make a documentary about Ultimate Frisbee and film me!

Cindy: (5) That would certainly be fun! Anyway, I've got to run. Let's keep in touch. (B)

Pete: Sure thing, Cindy! Bye!

(Original text)

設問1. 空所(1)~(5)を埋めるのにもっとも適当なものを(a)~(j)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。ただし、各選択肢は一度しか使えない。

- (a) Did you hear the news?
- (b) How does that sound?
- (c) I couldn't be better.
- (d) I don't want to trouble you.
- (e) I'm really happy for you.
- (f) I wish I'd known.
- (g) That's nice of you to say.
- (h) That sounds like good advice.
- (i) That's what I heard.
- (j) Who knows?

設問2. 下線部(イ)～(ハ)の意味にもっとも近いものを(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

- | | | |
|-----|---------------------------------|----------------------------------|
| (イ) | (a) Did that fall through? | (b) Did things go well? |
| | (c) Did you finish it? | (d) Did you work hard? |
| (ロ) | (a) that doesn't require travel | (b) that's near my home |
| | (c) that suits me well | (d) that will lead to a good job |
| (ハ) | (a) Let's hold off on it. | (b) Let's remain cautious. |
| | (c) Let's stay in contact. | (d) Let's stick it out. |

設問3. 下線部(A)を10語以内で英語に直し、記述解答用紙の所定欄に書け。ただし、最後の語は与えられている。

|| 次の英文を読み、下記の設問に答えよ。

Should commuting hours count as part of the workday? This suggestion was made by university researchers in England who studied the commuting habits of thousands of business people.

It's no secret that the expansion of Wi-Fi on trains, planes and automobiles has led to the de facto expansion of the working day, tying employees to their electronic devices as they send and receive countless work emails after clocking out from their jobs.

Work-life balance has been a popular catchphrase of the modern era, in which employers provide a range of perks for their employees to get rid of the accumulated stress. But amid the emphasis on wellness ⁽¹⁾programs come alarming tales like that of a 31-year-old Japanese worker who amassed more than 159 hours of overtime in one month and worked herself to death. Officials there and in other countries have moved to crack down on overworking.

Last year, France, which already has a 35-hour workweek, introduced a law requiring large companies to give their employees "the right to disconnect" and block email when they are off duty.

Similar limits have been tested in Germany, where in 2013 the Labor Ministry ordered its supervisors not to contact employees (イ) office hours. And in 2011, Volkswagen began shutting off its company cellphone network at the end of the workday, stopping some employees in Germany from sending or receiving email.

In Britain, workers spend an hour on average getting to and from their jobs—more in and around London—but not everyone is able to be (ロ) in a busy rail car, where the temptation of computer games may be too strong.

Over 40 weeks in 2016 and 2017, the research team at the University of the West of England studied 5,000 commuters who traveled up to 250 miles a day for work on two busy lines that run northwest from London to Birmingham and Aylesbury. The workers were scrutinized for their use of free wireless internet on the routes. The team found that commuters were using their time on the train to get work done. The longer the route, the more work was being accomplished. Fifty-four percent of commuters on the longer route, Birmingham to London, and 36 percent on the shorter one, Aylesbury to London, were checking and sending work-related emails during the trips.

Dr. Jain, a researcher at the University of Bristol, said the study was still in its exploratory stage. Any changes in the length of the workweek would have to come from the British government. ⁽²⁾

But several European countries have proposed regulatory changes to take account of longer commutes and the seemingly permanent availability of mobile internet. And a court case decided before a European legal commission ⁽³⁾last year could affect how working time is calculated across the continent. The commission ruled that in Norway, some employees could count their commute as working time—the (ハ) being that while they may not be, strictly speaking, working, they are at the disposal of their employer.

This summer, France's highest court ordered a British company to pay one of its workers in France 60,000 euros (more than \$70,000) in compensation, after the company required employees to have their phones on at all times to answer questions and complaints from clients and subordinates. "The right to disconnect is reminding everyone that we ought to have a reasonable attitude to new technologies," said Ms. Sabbe-Ferri, a lawyer in Paris. "Having access to the internet around the clock (二) we should be working all the time."

(Adapted from *The New York Times*, August 30, 2018)

設問 1. 次の1.～4.について、本文の内容にもっとも合うものを(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

1. Based on this article, which of the following statements is true?
 - (a) Companies in Germany abuse their employees by forcing them to work at home on their mobile devices.
 - (b) Death from overwork is still a common occurrence in the corporate world and some governments have largely ignored the problem.
 - (c) Examples in Germany, France and Japan demonstrate that modern technology has made work-life balance easier to achieve than in the past.
 - (d) Today, while many companies try to improve their working conditions, examples of overwork persist.
2. Which of the following statements accurately describes measures taken in Germany to help employees maintain a work-life balance?
 - (a) A private company made it impossible to use work-related email except during established business hours.
 - (b) Efforts have been made in both private and public sectors to limit the use of email during office hours.
 - (c) The first action to restrict the use of corporate email was undertaken by the German government to be followed two years later by a private company.
 - (d) The government and the private sector have been cooperating to pass laws requiring employers to use their best judgment when sending email to staff.
3. The results of the study undertaken by the University of the West of England show that
 - (a) a considerable minority of travelers between Aylesbury and London are engaged in personal communication while on the train.
 - (b) approximately a third of all passengers on a longer route try to catch up on work while traveling.
 - (c) many commuters spend time on the train playing video games since the rail cars get too busy to do any work effectively.
 - (d) there is a positive correlation between the amount of work done on the train and the time spent getting to the destination.
4. What is so significant about the decision of the European legal commission?
 - (a) It has allowed certain employees to claim the time they spend getting to their workplace and back as the time spent in the office.
 - (b) It has forced the business world to change its attitude towards the use of new technologies.
 - (c) It has made it more difficult for the employers to require their workers to be at their disposal at all times.
 - (d) It has resulted in a number of high-profile legal cases, notably in France, in which employees demanded additional pay.

設問 2. 下線部(1)～(3)の意味にもっとも近いものを、(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

- | | | |
|-----|----------------|-------------------|
| (1) | (a) benefits | (b) designations |
| | (c) measures | (d) references |
| (2) | (a) critical | (b) decisive |
| | (c) initial | (d) pivotal |
| (3) | (a) uncertain | (b) uninterrupted |
| | (c) unresolved | (d) unstable |

設問 3. 空所(イ)～(ニ)を埋めるのもっとも適当なものを(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

- | | | | | |
|-----|---------------------------------|-------------------------------|----------------|---------------|
| (イ) | (a) demanding | (b) outside | (c) regarding | (d) within |
| (ロ) | (a) ambitious | (b) entrepreneurial | (c) productive | (d) reluctant |
| (ハ) | (a) appeal | (b) effort | (c) rationale | (d) strategy |
| (ニ) | (a) cannot negate the fact that | (b) doesn't mean that | | |
| | (c) fortunately suggests that | (d) often lets us forget that | | |

設問 4. 本文のタイトルとしてもっとも適当なものを(a)～(d)から一つ選び、マーク解答用紙の所定欄にマークせよ。

- (a) Abuse of Power by Large Corporations: How Some Companies Are Forcing Their Employees to Work Overtime
- (b) Major Changes Looming in Europe: Why Legal Pressure Is Forcing Companies to Expand the Work Responsibilities of Their Employees
- (c) No Longer 9 to 5: The Traditional Definition of Working Hours May Be on Its Way Out
- (d) Slaves of the Internet: The Frightening Reality of Today's Workplace in Many Countries

設問 5. 下線部(A)を日本語に訳し、記述解答用紙の所定欄に書け。

||| 次の英文を読み、以下の設問に答えよ。

Since World War II, the availability of food per capita in the world has increased by about 40 percent. Today, there is sufficient food in the world to adequately feed everyone.

The Green Revolution introduced in the late 1960s is mainly responsible for this. The Green Revolution was the right solution for the challenge of that time: to quickly increase food production and productivity based on an input-intensive agriculture. It worked. It saved hundreds of millions from hunger. But almost 50 years later, its limits have also become (1).

First, because hunger still persists—about 815 million people in the world suffered from undernourishment in 2016 on a daily basis. This clearly shows that the hunger problem nowadays is not the lack of food, but accessibility to food. In addition, the world is already facing an epidemic of overweight and obesity. In 2016, more than 1.9 billion adults worldwide were overweight. ⁽¹⁾ Of those, more than 650 million were obese.

The second reason that the Green Revolution has reached its limits is because the increase in production and productivity has come at a high environmental cost. The widespread use of chemical fertilizers and pesticides has contributed to land degradation, water pollution, and biodiversity loss.

It is time to innovate again. This time, innovation means increasing the resilience and sustainability of our food systems, especially (2) climate change. We need to put forward sustainable food systems that offer healthy, nutritious and accessible food for all, ecosystem services, and climate

resilience.

The emerging field of agroecology can offer several contributions in this regard.

As a tailored combination of both science and cultural wisdom, agroecology's core elements comprise a strong ⁽²⁾emphasis on diversity, synergies, recycling, efficient use of resources, ecological and socio-economic resilience, the co-creation and sharing of knowledge, and the link between human values and sustainable livelihoods. It also includes the role of culture in food traditions and the important role that responsible governance ^(A)mechanisms — covering issues ranging from duration to the way that public subsidies are used — must play to support long-term investments in sustainability.

There are many (3) of the benefits of agroecology. In Trinidad and Tobago, where years of sugarcane farming led to poor-quality soils, family farmers used lemon grass to cool the ground, impede erosion, and crowd out rival weeds. This, along with a clever water recycling system, has turned even modest plots into ⁽³⁾prosperous and high-yielding fruit and vegetable operations.

In east China, farmers have engineered ⁽⁴⁾clever ecosystems, building elaborate networks of ditches and fish ponds to channel water and waste in a way benefiting all the phases of a circular agricultural system based for millennia on producing lucrative silkworms.

In recent years, the U.N. Food and Agriculture Organization (FAO) has been promoting and facilitating an international debate on the potential of agroecology.

The First International Symposium on Agroecology was held at FAO Headquarters in September 2014, and it was followed by a series of regional meetings in Latin America, Europe, Africa, and Asia. Governments, civil society, the private sector, academia, and research institutions have come together to share experiences and points of view regarding the benefits of agroecology as a new approach to make agriculture more sustainable and compatible with the 2030 development agenda.

FAO will now host the Second International Symposium on Agroecology, which will take place from April 3 to 5, 2018, also at the FAO headquarters in Rome. The aim of the Second International Symposium is to identify ⁽⁵⁾needs and problems that countries face in the adoption and implementation of agroecology, to evaluate the impact of dedicated public policies, and to identify the capacity-building needs of the relevant institutions.

Sustainability and innovation are key words. The future of agriculture and food systems are not input-intensive, but (4)-intensive. This is a new paradigm.

(Adapted from Foodtank.com)

設問 1. 次の1.～4.について、本文の内容に合うものはマーク解答用紙のTの欄に、合わないものはFの欄にマークせよ。

1. It is not availability of food but accessibility to food that matters in the world today.
2. The Green Revolution is largely held responsible for a shortage of food.
3. There are many people diagnosed with obesity while there are still problems of hunger and undernutrition.
4. The problems with the Green Revolution include a negative environmental impact.

設問 2. 空所(1)～(4)を埋めるのにもっとも適当なものを(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

- | | | | | |
|-----|---------------------------|---------------|---------------------------|---------------|
| (1) | (a) apparent | (b) complex | (c) obscure | (d) redundant |
| (2) | (a) in the face of | | (b) in the pursuit of | |
| | (c) in the service of | | (d) in the vicinity of | |
| (3) | (a) concrete examples | | (b) convincing guidelines | |
| | (c) instructive practices | | (d) ongoing trials | |
| (4) | (a) capital | (b) knowledge | (c) labor | (d) time |

設問 3. 下線部(1)～(5)の意味にもっとも近いものを(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

- | | | | | |
|-----|--------------------------|-----------------------------|----------------|---------------|
| (1) | (a) a mysterious symptom | (b) a serious infection | | |
| | (c) a valuable treatment | (d) a widespread occurrence | | |
| (2) | (a) custom-made | (b) man-made | (c) ready-made | (d) self-made |
| (3) | (a) bring out | (b) keep out | (c) leave out | (d) pull out |
| (4) | (a) developed | (b) employed | (c) preserved | (d) restored |
| (5) | (a) consolidate | (b) determine | (c) satisfy | (d) undermine |

設問 4. 下線部(A)が指し示す 1 語を本文から抜き出し、記述解答用紙の所定欄に書け。

IV 次の英文を読み、下記の設問に答えよ。

The corridor outside Ruby's bedroom is cluttered with a professional-grade video camera, tripod and lights. Normally they would be pointed directly at her desk, but they are not needed for the moment because she is taking a brief break from studying to talk to me.

"I've got an agreement with the family that I can store the tripod there," the teenager says sheepishly as we take a tour of her home, "⁽⁷⁾but I'll get in trouble for the lights."

Ruby's family don't quite understand her—"She is a bit weird," says her younger sister, with full sibling love—but her fans do. Ruby is a star of the new Study Tuber phenomenon, one of the strangest to emerge from the frontier of online youth culture. Put simply, millions of girls love to watch videos of Ruby doing homework. And Ruby does a lot of homework.

All of the Study Tubers post videos of tips for achieving more in life or of them just studying. If you are over the age of 25 you may be querying the latter category: literally watching a girl sit at a book or laptop? Yes, just that—except that it is built on the billions of young men who spend hours of every day watching other young men on YouTube playing video games (1) the name "Let's Play." The Study Tubers' equivalent includes videos called "Study With Me" or "Revise With Me," with the girls narrating footage of marathon studying sessions. They are academic performers in both senses of the term. _(A)

Take Ruby. She seems like a petite 17-year-old 19th-century heroine, with a love of charmingly vintage English fashions and phrases (her sister makes fun of her for using the word "harkened" in conversation) and a Victorian family home in Buckinghamshire. However, when it comes to studying, Ruby is an ultra-endurance athlete.

The footage she and others post of themselves receiving their results for secondary school standardised exams (all A-stars) or Oxford University places is like medal time at the Olympics. One of Ruby's most popular videos was a speeded-up version of herself revising for her advanced-level exams for 14 hours solid in one day; it has had more than one million views.

"We say, 'Ruby, come down and watch a film and relax'," says her mother, Clare, as I chat with the family after school one evening. "She doesn't want to." Clare has the universal bewildered look of parents of teenagers doing crazy futuristic stuff, even if it is getting paid for uploading videos of themselves staring at textbooks.

Ruby interjects: "I couldn't do it for 15 hours if I didn't enjoy it." ⁽¹⁾ You may have guessed what the follow-up was to her wildly successful 14-hour "Study With Me" video.

I believe her. "Have a productive week," is Ruby's signature sign-off to her weekly videos. I spent a week immersed (2) the almost exclusively female subculture of Study Tubers and found it exposed just how unproductive I am. The top three are Ruby, whose channel is called "Ruby Granger" (she adopted the name Granger in tribute to her hero, Hermione Granger from the Harry Potter stories)

and has had 11.5 million views; Jade Bowler from “Unjaded Jade,” who has had 8.6 million views since launching last year; and Eve Bennett from “Revision with Eve,” who has had 4.5 million views.

They get recognised in public and some of their teachers show their productivity tutorials to their classes. One of Ruby’s fans recreated her bedroom in Minecraft. Their parents often appear incidentally in their videos, obviously baffled (3) why their daughters are videoing themselves all day long. Or, indeed, why they are studying in stints of 12 hours or more.

Ruby was bullied at the start of her academic drive; now she “owns it,” she says. Incidentally, the revenue stream is, while not massive, “more than pocket money” and she puts it, of course, (4) the costs of a degree. “The education system is pressurising enough on young people and I don’t want to make it worse,” Ruby says, “but on the other hand that pressure almost obliges people to seek out advice and tips.”

(Adapted from *The Times*, March 19, 2018)

設問 1. 空所(1)～(4)を埋めるのにもっとも適当なものを(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

- | | | | | |
|-----|------------|----------------|-------------|----------------|
| (1) | (a) at | (b) in | (c) over | (d) under |
| (2) | (a) about | (b) in | (c) of | (d) through |
| (3) | (a) as to | (b) because of | (c) but for | (d) instead of |
| (4) | (a) across | (b) at | (c) by | (d) towards |

設問 2. 下線部(ア)と同じ用法のものを(a)～(d)から一つ選び、マーク解答用紙の所定欄にマークせよ。

- (a) I am convinced that our students will do a great job creating original textbooks for children.
- (b) I would like to express my sincere gratitude to you for granting the scholarship that enabled me to study in the U.S. last year.
- (c) “The Sound of Music” is the film that many students claim changed their lives.
- (d) They were encouraged by the fact that their performance was evaluated highly in the latest review.

設問 3. 次の1.～5.について、本文の内容に合うものはマーク解答用紙のTの欄に、合わないものはFの欄にマークせよ。

- 1. Ruby did not have a video camera, tripod and lights in her bedroom while she was being interviewed by the author.
- 2. Ruby’s mother, Clare, is bewildered because Ruby is watching “Study With Me” without her teachers or her classmates.
- 3. The fans of Study Tubers are so fascinated with the Study Tubers’ performance that some appear in their videos by chance.
- 4. The amount of money Ruby earns as a Study Tuber is not insignificant.
- 5. According to Ruby, due to the pressure from the education system many people even give up asking for help.

設問 4. 下線部(イ)と同じ意味を表すものが[a]～[d]に二つある。その正しい組み合わせを(i)～(iv)から一つ選び、マーク解答用紙の所定欄にマークせよ。

- [a] “Because I am fond of doing it I can continue it for 15 hours.”
- [b] “I couldn’t do it for 15 hours as it was difficult for me to enjoy it.”
- [c] “It is possible for me to do it for 15 hours as I find it fun.”
- [d] “I would be able to do it for 15 hours if I liked it.”

- | | |
|-------------------|------------------|
| (i) [a] and [b] | (ii) [a] and [c] |
| (iii) [b] and [d] | (iv) [c] and [d] |

設問 5. 下線部(A)の意味にもっとも近いものを(a)～(d)から一つ選び、マーク解答用紙の所定欄にマークせよ。

- (a) Both boys and girls strive for academic excellence by studying hard on video.
- (b) Girls who star in the Study Tubers are both talented entertainers and gifted students.
- (c) The videos have a high level of both academic and entertainment value.
- (d) These videos are examples of how students can both study and have fun at the same time.

V 次の英文を読み、下記の設問に答えよ。

Everything we're injecting artificial intelligence into—self-driving vehicles, robot doctors, the social-credit scores of more than a billion Chinese citizens and more—depends on a debate about how to make AI do things it can't, at present. What was once merely an academic concern now has consequence for billions of dollars' worth of talent and infrastructure and, you know, the future of the human race.

That debate comes down to (1) the current approaches to building AI are enough. With a few tweaks and the application of enough brute computational force, will the technology we have now be capable of true “intelligence,” in the sense we imagine it exists in an animal or a human?

On one side of this debate are the proponents of “deep learning”—an approach that, since a landmark paper in 2012 by a trio of researchers at the University of Toronto, has exploded in popularity. While far from the only approach to artificial intelligence, it has demonstrated abilities beyond (2) previous AI technology could accomplish.

The “deep” in “deep learning” refers to the number of layers of artificial neurons in a network of them. As in their biological equivalents, artificial nervous systems with more layers of neurons are capable of more sophisticated kinds of learning.

To understand artificial neural networks, picture a bunch of points in space connected to one another like the neurons in our brains. Adjusting the strength of the connections between these points is a rough analog for what happens when a brain learns. The result is a neural wiring diagram, with favorable pathways to desired results, such as correctly identifying an image.

(3) its limitations, deep learning powers the gold-standard software in image and voice recognition, machine translation and beating humans at board games. It's the driving force behind Google's custom AI chips and the AI cloud service that runs on them, as well as Nvidia Corp.'s self-driving car technology.

Andrew Ng, one of the most influential minds in AI and former head of Google Brain and Baidu Inc.'s AI division, has said that with deep learning, a computer should be able to do any mental task that the average human can accomplish in a second or less. Naturally, the computer should be able to do it even faster than a human.

On the other side of this debate are researchers such as Gary Marcus, former head of Uber Technologies Inc.'s AI division and currently a New York University professor, who argues that deep learning is woefully insufficient for accomplishing the sorts of things we've been promised. It could never, for instance, be able to take over all white collar jobs and lead us to a glorious future of fully automated luxury communism.

Dr. Marcus says that to get to “general intelligence”—which requires the ability to reason, learn on one's own and build mental models of the world—will take more than what today's AI can achieve.

To go further with AI, “we need to take inspiration from nature,” says Dr. Marcus. That means coming up with other kinds of artificial neural networks, and in some cases giving them innate, pre-programmed knowledge—like the instincts that all living things are born with.

Researchers are also trying to give AI the ability to build mental models of the world, something even babies can accomplish by the end of their first year. (4), while a deep-learning system that has seen a million school buses might fail the first time it's shown one that's upside-down, an AI

with a mental model of what constitutes a bus—wheels, a yellow chassis, etc.—would have less trouble recognizing an inverted one.

Until we figure out how to make our AIs more intelligent and robust, we're going to have to hand-code into them a great deal of existing human knowledge, says Dr. Marcus. That is, a lot of the “intelligence” in artificial intelligence systems like self-driving software isn't artificial at all. As much as companies need to train their vehicles on as many miles of real roads as possible, for now, making these systems truly capable will still require inputting a great deal of logic that reflects ^(A)the decisions made by the engineers who build and test them.

(Adapted from *The Wall Street Journal*, August 4, 2018)

注 neural 神経(系)の

設問 1. 空所(1)～(4)を埋めるのもっとも適当なものを(a)～(d)からそれぞれ一つ選び、マーク解答用紙の所定欄にマークせよ。

- | | | | | |
|-----|----------------|-------------|--------------|-----------|
| (1) | (a) after | (b) how | (c) whether | (d) why |
| (2) | (a) that | (b) what | (c) when | (d) whose |
| (3) | (a) Despite | (b) Over | (c) Through | (d) With |
| (4) | (a) Conversely | (b) However | (c) Moreover | (d) Thus |

設問 2. 次の1.～4.について、本文の内容に合うものはマーク解答用紙のTの欄に、合わないものはFの欄にマークせよ。

1. Self-driving vehicles, robot doctors, and the social-credit scores of more than a billion Chinese citizens have all been realized thanks to AI.
2. To advance AI, Dr. Marcus claims that it is necessary to devise artificial neural networks which are similar to the instincts that all living things are born with.
3. An AI with a mental model of what constitutes a bus would require a million bus images to recognize one that is wrong side up.
4. It is still necessary for human beings to incorporate a great deal of logic into AIs manually in order to make them more intelligent and robust.

設問 3. 下線部(A)を日本語に訳し、記述解答用紙の所定欄に書け。

設問 4. 本文のタイトルとしてもっとも適当なものを(a)～(d)から一つ選び、マーク解答用紙の所定欄にマークせよ。

- (a) Can Artificial Intelligence Ever Realize Human Dreams?
- (b) Endeavor to Equip Artificial Intelligence With the Ability to Learn From Experience
- (c) Should Artificial Intelligence Copy the Human Brain?
- (d) The Reasons Why Artificial Intelligence Can Never Achieve “Deep Learning”

[以 下 余 白]

