

# 英 語

(教養学部・経済学部・教育学部)

(平成 31 年度)【前期日程】

問題冊子 1～17 ページ

答案用紙 2 枚

## 注 意 事 項

- 1 試験開始の合図があるまでこの冊子を開いてはいけない。
- 2 枚数の不足や、印刷に不鮮明なところがあれば申し出ること。
- 3 解答は必ず答案用紙の指定された箇所に記入すること。
- 4 答案用紙（その1）については、氏名・フリガナ・受験番号（所定の欄・1箇所）を記入し、受験番号マーク欄をマークすること。記入・マークを忘れてたり、あるいは誤った番号を記入・マークした場合は失格となることがある。
- 5 答案用紙（その2）については、受験番号（所定の欄・2箇所）を記入すること。記入を忘れてたり、あるいは誤った番号を記入した場合は失格となることがある。
- 6 試験が終了したら、答案用紙を（その1）、（その2）の順番に左右に並べて机の上に置くこと。
- 7 退室するときは、問題冊子を持ち帰ること。

※注：問題および答案用紙のサイズは、実際とは異なることがあります。

**I** Read the passage and answer the questions below with the correct corresponding number. Words marked with an asterisk (\*) are defined in the glossary. The full score for Questions 1-14 is 42 points.

Hunter-gatherers<sup>\*1</sup> had no money. Each group hunted, gathered and manufactured almost everything it required, from meat to medicine. Different group members may have specialized in different tasks, but they shared their goods<sup>\*2</sup> and services through an economy of favors and obligations. A piece of meat given for free would carry with it the expectation of something in return — free medical assistance, for example. The group was economically independent; only a few rare items that could not be found ( A ) — sea shells, pigments, and the like — had to be obtained from strangers. This could usually be done by simple barter<sup>\*3</sup>: “We’ll give you pretty shells, and you’ll give us high-quality pigments.”

Little of this changed when the Agricultural Revolution<sup>\*4</sup> began. Most people (1) continued to live in small, intimate communities. Much like a hunter-gatherer group, each village was a self-sufficient economic unit, maintained by mutual favors and obligations plus a little barter with outsiders. One villager may have been particularly skilled at making shoes, another at providing medical care, so villagers knew where to turn when barefoot<sup>\*5</sup> or sick. But villages were small and their economies limited, so (2) there could be no full-time shoe makers or doctors.

An economy of favors and obligations doesn’t work when large numbers of strangers try to cooperate. It’s one thing to provide free assistance to a sister or a neighbor, a very different thing to take care of foreigners who might never return the favor. One can fall ( B ) on barter. But barter is effective only when exchanging a limited range of products. It cannot form the basis for a complex economy.

In order to understand the limitations of barter, imagine that you own an apple farm in the hill country that produces the sweetest apples in the entire province. You work so hard that your shoes wear out. So you head to the market down by the river. Your neighbor told you that a shoe maker on the south end of the marketplace made him some really nice boots that have lasted him through five

seasons. You find the shoe maker's shop and offer to barter some of your apples in exchange for the shoes you need.

30 The shoe maker hesitates. How many apples should he ask for in payment? Every day he encounters dozens of customers, a few of whom bring a bag of apples, while others carry wheat, goats or cloth — all of varying quality. Still others offer their expertise in asking favors of the king or curing headaches. The last time the shoe maker exchanged shoes for apples was three months ago, and  
35 back then he asked for three bags of apples. Or was it four? But <sup>(3)</sup>come to think of it, those apples were sour valley apples, rather than prime hill apples. On the other hand, on that previous occasion, the apples were given in exchange for small women's shoes. This fellow is asking for man-sized boots. Besides, in recent weeks a disease has killed many of the sheep around town, and skins are  
40 becoming scarce. The leather makers are starting to demand twice as many finished shoes in exchange for the same quantity of leather. Shouldn't that be ( C ) into consideration?

In a barter economy, every day the shoe maker and the apple farmer will have to learn once more the relative prices of dozens of commodities. If one hundred  
45 different commodities are traded in the market, then buyers and sellers will have to know 4,950 different exchange rates. And if 1,000 different commodities are traded, buyers and sellers must deal with 499,500 different exchange rates! How do you figure it out? It gets worse. Even if you manage to calculate how many apples equal one pair of shoes, barter is not always possible. After all, a trade requires  
50 that each side want what the other has to offer. What happens if the shoe maker doesn't like apples and, if at the moment in question, what he really wants is a divorce? True, the farmer could look for a lawyer who likes apples and set up  
<sup>(4)</sup>a three-way deal. But what if the lawyer is full up on apples but really needs a haircut?

55 Societies found an easier way to connect large numbers of experts — they developed money.

Money is anything that people are willing to use in order to represent the value of other things for the purpose of exchanging goods and services. Money <sup>(5)</sup>enables

people to compare quickly and easily the value of different commodities (such as apples, shoes and divorces), to easily exchange one thing for another, and to store\*<sup>6</sup> 60  
wealth in a convenient way. There have been many types of money. The most familiar is the coin. Yet money existed long before the invention of the coin, and cultures have used other things as currency, such as shells, cattle, skins, salt, grain and cloth. Shells were used as money for about 4,000 years across three different continents. 65

For complex commercial systems to function, some kind of money is indispensable. A shoe maker in a money economy needs to know only the prices charged for various kinds of shoes — there is no need to memorize the exchange rates between shoes and apples or goats. Money also frees apple experts from the need to search out apple-loving shoe makers, because everyone always wants money. This is 70  
perhaps its most basic quality. (6) Everyone always wants money because everyone else also always wants money, which means you can exchange money for whatever you want or need. The shoe maker will always be happy to take your money, because no matter what he really wants — apples, goats or a divorce — he can get it in exchange for money. Money is thus a universal medium of exchange that 75  
enables people to convert almost everything into almost anything else.

Ideal types of money enable people not merely to (7) turn one thing into another, but to store wealth as well. Many valuables cannot be stored — such as time or beauty. Some things can be stored only for a short time, such as strawberries. Other things are more durable, but take up a lot of space and require expensive 80  
facilities and care. Grain, for example, can be stored for years, but to do so you need to build huge storage houses and guard against rats, mold, water, fire and thieves. Money, whether paper, computer bits\*<sup>7</sup> or shells, solves these problems. Shells don't decay, are not appealing to rats, can survive fires and are compact enough to be locked up in a safe\*<sup>8</sup>. 85

In order to use wealth it is not enough just to store it. It often needs to be transported from place to place. Some forms of wealth, such as real estate, cannot be transported at all. Commodities such as wheat and rice can be transported only with difficulty.

Because money can convert, store and transport wealth easily and cheaply, it made a vital contribution to the appearance of complex commercial networks and dynamic markets. Without money, commercial networks and markets would have remained very limited in their size and complexity.

[Modified from Yuval Noah Harari, “Sapiens: A Brief History of Humankind,” 2014]

## Glossary

1. hunter-gatherers: people who get their food by hunting and gathering
2. goods: items that are useful or necessary for daily life
3. barter: trade or trading of one thing for another
4. Agricultural Revolution: the period in history when farming replaced hunting and gathering as the main way for people to obtain their food
5. barefoot: without shoes or socks
6. store: keep something for later use
7. bits: units of electronic information
8. safe: a security box

## Questions

Q.1. Fill in the blank marked ( A ) with the appropriate word.

1. drastically
2. physically
3. ironically
4. critically
5. locally

Q.2. The underlined section numbered (1), “Little of this changed,” means:

1. People still avoided trading with outsiders for rare goods
2. People continued to rely mostly on barter to obtain goods
3. People continued to obtain most goods in return for favors
4. People still used shells, rather than money as the main currency
5. People rarely provided others with goods based on prior obligations

Q.3. The underlined section numbered (2), “there could be no full-time shoe makers or doctors,” implies that:

1. The labor market had yet to become fully specialized.
2. Part-time employment had replaced full-time.
3. The demand for shoe makers and doctors had decreased.
4. Villages had prohibited full-time practice of those occupations.
5. Villagers suffered from a lack of shoes and basic medical care.

Q.4. Fill in the blank marked ( B ) with the appropriate word.

1. in
2. back
3. down
4. apart
5. out

Q.5. The underlined section numbered (3), “come to think of it,” is closest in meaning to:

1. in many cases
2. without a doubt
3. at first glance
4. on second thought
5. come what may

Q.6. Fill in the blank marked ( C ) with the appropriate word.

1. taken
2. used
3. thought
4. made
5. looked

Q.7. The underlined section numbered (4), “a three-way deal,” refers to which of the following exchanges?

1. apples for a haircut for boots
2. apples for boots for a divorce
3. apples for a divorce for boots
4. a haircut for a divorce for boots
5. a haircut for apples for a divorce

Q.8. The example of the apple farmer illustrates:

1. the regulation of barter-based economic systems to ensure that all parties engaged in fair trade.
2. the limitations of economies based on barter, rather than a system of favors and obligations between strangers.
3. the disadvantages faced by people working in agriculture compared to other professions when attempting to obtain goods through barter.
4. the problem with economies in which goods are obtained in exchange for other goods rather than through the use of a common currency.
5. the restrictions imposed by modern economic systems on the types of goods and services people could exchange.

Q.9. The underlined word numbered (5), “enables,” is closest in meaning to:

1. disables
2. avoids
3. reverses
4. prevents
5. allows

Q.10. According to the passage, which of the following is NOT true about money?

1. It is used as a representation of how much goods and services are worth for the purpose of exchanging them.
2. It requires knowledge of multiple exchange rates for each type of commodity in a complex economy.
3. It was an important part of complex economic systems long before coins were first developed.
4. It has taken many forms over history, including shells, cattle, skins, salt, grain, cloth, and notes.
5. It is easier to store and preserve compared to commodities, such as apples and goats.

Q.11. The underlined sentence numbered (6), “Everyone always wants money because everyone else also always wants money, which means you can exchange money for whatever you want or need,” is closest in meaning to:

1. People’s constant desire for money originates from their belief that other people also desire it, thereby enabling them to trade it for any good or service available.
2. People always want money, because money is made of valuable materials that people desire, enabling them to trade it for whatever they want.
3. People’s constant desire for money is due to their knowing that it can be stored and transferred easily, which makes it a convenient medium of exchange.
4. People desire money more than any good or service that they may want or need, which makes money more valuable than those other goods and services.
5. People constantly desire money, even in the case where no one else desires it, because money can always be used to purchase whatever people want or need.



Q.12. The underlined word numbered (7), “turn,” is closest in meaning to:

1. spin
2. revolve
3. orbit
4. transform
5. rotate

Q.13. Based on the article, which is NOT a reason why coins would be better than rice as a currency?

1. Coins are more easily preserved than rice, because coins are made from metal which does not decay like rice does.
2. Rice can be eaten by animals as well as people, whereas coins are only desired by people, so coins require less effort to store and protect.
3. The metal from which coins are made is more valuable than rice, because it cannot be grown and therefore is limited in supply.
4. Since the value of rice is dependent on its weight, large amounts of wealth would be difficult to transport in that form compared to coins.
5. Coins can be stored in nearly any environment, whereas rice must be stored in a dry and cool place.

Q.14. What qualities make money vital to complex economies?

1. Money can be preserved, moved and exchanged for other things with great difficulty and cost.
2. Money can be destroyed, dispersed, and disposed of with little difficulty and cost.
3. Money can be destroyed, dispersed, and disposed of with great difficulty and cost.
4. Money can be preserved, moved and exchanged for other things with little difficulty and cost.
5. Money can be converted, transferred, and stored with great difficulty and cost.

**II** Read the passage and answer the questions below with the correct corresponding number. Words marked with an asterisk (\*) are defined in the glossary. The full score for Questions 15-27 is 38 points.

Humans creating life <sup>(1)</sup>in their own image is a fundamental principle of the realm of fiction. And until recently, such imaginings have stayed there. But today, more and more sophisticated robots are graduating from the entertainment domain into increasingly realistic, intelligent beings. Take the famous human imitations of Professor Hiroshi Ishiguro from Osaka University, Japan. Or the performing androids\*<sup>1</sup> from the Engineered Arts company in the UK, or Sophia, the humanoid\*<sup>2</sup> robot without a scalp\*<sup>3</sup> from the Hong Kong-based Hanson Robotics company. They're all so entrancing, it's easy to forget how many ethical problems there could be.

Surprising social problems will come ( A ) realistic humanoid robots. These robots might work the front desk of hotels, or <sup>(2)</sup>stand in for us at the office, or live with us as companions.

Google\*<sup>4</sup> ran into an early indication of those problems last month, when it debuted Duplex, its voice assistant powered by AI\*<sup>5</sup>. Duplex is realistic enough to fool humans into thinking it's human — and it turns out people don't like being tricked. Google was forced to clarify that Duplex would introduce itself first as an AI, which kind of defeats the purpose of making a realistic voice assistant in the first place, <sup>(3)</sup>but whatever.

Ethical stumbles like this can challenge the developing relationship between humans and *physical* machines, too. Take ElliQ, a robot designed by the Intuition Robotics company in Israel, which reminds the elderly to stay active while acting as a window into their family's social media communications. ElliQ's designers went out of their way to remind the user they're talking to a robot. "The voice we say has a robotic accent, so we're not trying to hide that in a voice that sounds human," says Dor Skuler, the managing director of Intuition Robotics.

ElliQ kind of looks like it has a head, but it doesn't have eyes. A bit disturbing? Maybe. But it was a conscious choice by Intuition Robotics, because

humans tend to assign a sense of self to pretty much anything with eyes. For Skuler, convincing a user that an AI or humanoid robot is human is a dangerous game. “I think it creates the wrong expectation of the experience,” he says. “I don’t think we want to live in a world where an AI pretends to be human and tries to lead you down a path where you believe you’re talking to a real person, and feel these feelings or emotions.”

<sup>30</sup> Which is not to say we can, or should, stop humans from forming relationships (4) with machines. That’s inevitable. In fact, even in trials with an early home robot like ElliQ, users see the robot as a “new entity in their lives,” Skuler says, rather than as a device. To be sure, they know full well it’s just a machine — “and yet, there is a sense of gratitude for having something with them to keep them company,” Skuler says.

<sup>35</sup> All this from a very early and relatively simple companion robot. Just imagine the bonds that we’ll form with far more advanced machines. Say 50 years from now we’ve got realistic humanoid robots walking among us. They move a bit weird still, their facial expressions are a bit stiff still, so they reveal themselves as machines. This journey into the humanoid robot future will take us straight through what is known as the uncanny valley, where uneasy sensations arise in us when viewing a robot that is almost human, but not quite there.

But imagine now it’s 100 years in the future, and you’re in a colleague’s office talking about some reports. As you’re getting up to leave, your teammate says goodbye, then goodbye again, then again. You’ve been talking not to a human, <sup>40</sup> ( B ) a convincing representative robot, and it’s glitching\*<sup>6</sup>. You feel relieved to have cleared up the report business, but you also feel cheated.

What you needed from the very beginning was a declaration. “I would have the robot say, ‘By the way, Matt, I’m an AI,’” says Julie Carpenter, a researcher who studies human-robot interaction. “Or, ‘Julie is actually at home, and she’s <sup>45</sup> operating me from there.’” In those imagined scenarios, the robot discloses itself as a robot, just as Google’s new voice assistant does. You might even say that the robot would have an ethical requirement to do so, even if it ( C ) the illusion to some degree.

Those future ethical codes will likely vary country by country. “If you had a robot that maybe had some child-like qualities, perhaps in a shopping mall in Japan people might find that very engaging,” says Carpenter. “If you had a robot with similar qualities in a shopping mall in the United States, people might find that irritating.” Developers will have to consider cultural context when they design interactions between humans and their robotic counterparts. 60

And they’ll have to adapt to changing perspectives on those interactions, as new generations of robotic natives are born. “Children that grow up in this world with robots are going to shape how society at large interacts with robots,” says Carpenter. “It’s really the children that we need to watch to see what is going to be normal for them and what new norms of behaviors they are bringing into that culture.” 65

Ideally those norms won’t include treating humanoid robots ( D ). But if you do know that certain androids are in fact androids — they’ve revealed themselves to you — might it be tempting <sup>(5)</sup>to walk all over them? Might the bonds we form with our creations be more along the lines of servitude\*7 than affection? “Humans are great at developing social categories,” Carpenter says. “I treat you differently than I might treat my dentist. We go throughout our day modifying our social interactions for who we’re interacting with.” It’s not hard to see a future, then, where different types of robots get different levels of respect and affection. Your home humanoid robot is a beloved companion, while you can treat the front-desk humanoid robot with a bit less respect because, well, it doesn’t have feelings in its brain, just ones and zeroes. 70 75 80

What didn’t you understand about my request for a non-smoking room, exactly, Mr. Robot?

[Modified from Matt Simon, “We Need to Talk About Robots Trying to Pass as Humans,” 2018] 85

## Glossary

1. androids: robots with a human appearance
2. humanoid: having an appearance or character resembling that of a human
3. scalp: the skin covering the head, excluding the face
4. Google: a technology company providing Internet services
5. AI: a computer system that is able to perform tasks that normally require human intelligence
6. glitching: failing to function normally
7. servitude: the state of being a slave or controlled by someone more powerful

## Questions

Q.15. The underlined section numbered (1), “in their own image,” is closest in meaning to:

1. looking and acting like human beings
2. looking and acting like robots
3. being similar to other living things
4. having their own unique appearance
5. being similar to other non-living things

Q.16. Fill in the blank marked ( A ) with the appropriate word.

1. by
2. about
3. forward
4. between
5. with

Q.17. The underlined section numbered (2), “stand in for us,” does NOT mean:

1. replace us
2. work side by side us
3. fill in for us
4. take over for us
5. act as a substitute for us

Q.18. By inserting the underlined section numbered (3), “but whatever,” the author is implying that:

1. it would be better for us to challenge the decision.
2. the reality of computers fooling humans is inevitable.
3. we have to ignore this rather obvious discrepancy.
4. computer-generated voices will sound robotic to some degree.
5. it’s natural for AI-powered voice assistants to disclose themselves.

Q.19. The underlined sentence numbered (4), “Which is not to say we can, or should, stop humans from forming relationships with machines,” is closest in meaning to:

1. We cannot stop people from developing deep connections with robots.
2. It is not possible for people to develop strong ties with robots.
3. It is not impossible for robots to develop strong ties with people.
4. We should stop robots from developing deep connections with people.
5. We should stop deep connections that develop between robots and humans.

Q.20. Fill in the blank marked ( B ) with the appropriate word.

- |        |        |       |
|--------|--------|-------|
| 1. if  | 2. or  | 3. so |
| 4. but | 5. and |       |

Q.21. Fill in the blank marked ( C ) with the appropriate word.

- |             |                |            |
|-------------|----------------|------------|
| 1. sustains | 2. ruins       | 3. assumes |
| 4. enhances | 5. anticipates |            |

Q.22. Fill in the blank marked ( D ) with the appropriate word.

- |             |                  |                 |
|-------------|------------------|-----------------|
| 1. honestly | 2. carefully     | 3. consistently |
| 4. badly    | 5. appropriately |                 |

Q.23. The underlined section numbered (5), “to walk all over them,” is closest in meaning to:

1. to respect them
2. to exploit them
3. to do them a favor
4. to treat them well
5. to be of service to them

Q.24. What is NOT mentioned in this article about the bonds between human beings and their robotic counterparts?

1. It is inevitable that people will form relationships with machines.
2. Machines may be viewed more like living beings, rather than like devices.
3. The bonds between people and machines are as strong now as they will ever be.
4. Relationships between people and machines will not be based on equality.
5. People can feel a sense of gratitude for having a machine to keep them company.

Q.25. Based on the information provided in the passage, which of the following statements is NOT true?

1. Human beings frequently modify their interactions based on whom they encounter.
2. Realistic real-world androids and humanoid robots are a fairly recent phenomenon.
3. Ethical problems will result from interactions between people and realistic humanoid robots.
4. Developers must consider cultural context when designing interactions between robots and human beings.
5. ElliQ's voice is realistic enough to fool people into thinking that it is a real human being.



Q.26. Based on the information provided in the passage, which of the following statements is true?

1. Google's Duplex voice assistant initially introduced itself as an AI at the beginning of each interaction.
2. Dor Skuler believes that we want to live in a world where an AI pretends to be a real human being.
3. Elderly people take exception to the practice of utilizing robots as companions.
4. Even for a non-living thing, people tend to reason that if it has eyes, it has its own will.
5. The uncanny valley is the situation where we feel a sense of comfort when we see a robot that is a close human imitation.

Q.27. What does the author imply in the final question posed in this article?

1. A robot made an error concerning a hotel reservation, and is being treated poorly because of the error and because it is a robot.
2. An android made no error concerning a hotel reservation, however it is not being treated politely, because it is not human.
3. A robot made an error concerning a hotel reservation, and is being treated politely regardless of the error or because it is a robot.
4. An android made an error concerning a hotel reservation, and is being treated politely despite the error, because it is not human.
5. A robot made an error concerning a hotel reservation, and is being treated poorly because of the error rather than because it is a robot.

**III** Answer in a short essay between 120 and 150 words in English. The full score for this essay is 20 points.

What is the kindest thing anyone has done for you? Explain what the person did for you and why you felt it was so kind.

答案用紙

英語 (その1)  
(教養学部・経済学部・教育学部)

フリガナ	
氏名	


受験番号を記入してください。						
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受験番号を マークして ください。	○	○	○	○	○	○
	①	①	①	①	①	①
	②	②	②	②	②	②
	③	③	③	③	③	③
	④	④	④	④	④	④
	⑤	⑤	⑤	⑤	⑤	⑤
	⑥	⑥	⑥	⑥	⑥	⑥
	⑦	⑦	⑦	⑦	⑦	⑦
	⑧	⑧	⑧	⑧	⑧	⑧
	⑨	⑨	⑨	⑨	⑨	⑨

マークの記入方法等

1. マークの記入は、**必ずBの黒鉛筆で**、○の中を**濃く塗りつぶ**してください。薄いとか点されないことあるので注意してください。

良い例 ●

悪い例 

2. ひとつの問いに、最も適当な答えをひとつ選んで、マークしてください。

3. 訂正する場合は、消しゴムできれいに消し、消し残しを残さないでください。  
ひとつの問いにふたつ以上のマークがあると採点されません。

4. 答案用紙は、折り曲げたり汚したりしないでください。

I

- Q.1      ①   ②   ③   ④   ⑤
- Q.2      ①   ②   ③   ④   ⑤
- Q.3      ①   ②   ③   ④   ⑤
- Q.4      ①   ②   ③   ④   ⑤
- Q.5      ①   ②   ③   ④   ⑤
- Q.6      ①   ②   ③   ④   ⑤
- Q.7      ①   ②   ③   ④   ⑤
- Q.8      ①   ②   ③   ④   ⑤
- Q.9      ①   ②   ③   ④   ⑤
- Q.10     ①   ②   ③   ④   ⑤
- Q.11     ①   ②   ③   ④   ⑤
- Q.12     ①   ②   ③   ④   ⑤
- Q.13     ①   ②   ③   ④   ⑤
- Q.14     ①   ②   ③   ④   ⑤

II

- Q.15     ①   ②   ③   ④   ⑤
- Q.16     ①   ②   ③   ④   ⑤
- Q.17     ①   ②   ③   ④   ⑤
- Q.18     ①   ②   ③   ④   ⑤
- Q.19     ①   ②   ③   ④   ⑤
- Q.20     ①   ②   ③   ④   ⑤
- Q.21     ①   ②   ③   ④   ⑤
- Q.22     ①   ②   ③   ④   ⑤
- Q.23     ①   ②   ③   ④   ⑤
- Q.24     ①   ②   ③   ④   ⑤
- Q.25     ①   ②   ③   ④   ⑤
- Q.26     ①   ②   ③   ④   ⑤
- Q.27     ①   ②   ③   ④   ⑤

