

令和3年度後期日程入学試験問題

英 語 B

人文社会科学部

工 学 部

農 学 部

注意事項

- ① 試験開始の指示があるまで、この問題冊子の中を見てはいけません。
- ② 問題冊子は、20ページ(表紙、白紙を除く)です。試験開始後、確認してください。
- ③ 解答は、解答用紙の指定の欄に記入しなさい。
- ④ 受験番号は、解答用紙の指定の欄に記入しなさい。

- 1 以下は、ある学术论文の題目と要旨、その学术论文に掲載されている表の一部です。これらを読んで、設問に答えなさい。

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(Graham Ambrose, Kirti Das, Yingling Fan and Anu Ramaswami. *Landscape and Urban Planning*, vol. 198, Elsevier, 2020. 一部変更)

問 1 Select two statements that appropriately describe the title and the abstract above, and write the letter on your answer sheet.

- (A) Making friends is mentioned as an example of activities that promote happiness.
- (B) Research that has measured well-being of urban gardening is abundant.
- (C) This study focuses on emotional well-being during household gardening.
- (D) All individuals that joined this study lived in the USA when it was conducted.
- (E) Table 1 describes what kind of gardening the participants engage in.

問 2 The text below is a summary of Table 1. To complete the summary, select the most appropriate word or number for each of the parentheses from the choices given and write the letter on your answer sheet.

The activity in which the most participants engage is “(①)”. The average frequency of this activity over the week is also the highest of all the items. In other words, the average frequency of this activity is approximately (②) on a daily basis. However, when it comes to the amount of time spent on each activity, “(③)” holds the first place; on average, the participants spend nearly 24 hours on this activity every week.

Along with “(③)”, the participants spend over 10 hours per week on “(④)”. From the perspective of the average frequency, this activity is slightly more than “Shop” and “(⑤)”.

The activity in which the fewest participants engage is “(⑤)”. It only gains about half the percentage of “Bus”. “(⑤)” is also the last

activity in terms of the average frequency over the week. However, from the perspective of the weekly amount of time spent, “(⑤)” is the second last; the activity on which the participants spend the smallest amount of time is “(⑥)”.

(A) Bike	(B) Car	(C) Eating out	(D) Education
(E) Leisure/Recreation	(F) Rail	(G) Shop	
(H) Waiting	(I) Walk	(J) Work	(K) 0.99
(L) 2	(M) 3	(N) 4	(O) 7.66
(P) 8.76	(Q) 66.2	(R) 85.4	

問 3 For the following statements (1)—(4) regarding Table 2, circle T if the statement is true or F if the statement is false on your answer sheet.

- (1) There are three sorts of gardening mentioned in this study.
- (2) Over 10% of the participants in this study engage in ornamental gardening.
- (3) Ornamental gardening is more popular than vegetable gardening in this study.
- (4) On average, the vegetable gardeners in this study engage in their gardening almost every other day.

2

以下の設問に答えなさい。

問 1 会話文(1)―(5)の()内の語句を、文脈も考慮して適切な語順に並べ替え、解答用紙に記入しなさい。ただし、文頭に来るべき語句も小文字で示してあるので、必要に応じて大文字に直して、記入すること。解答用紙には()内の語句のみ記入すること。

(1) A : Didn't you order new copying machines last week?

B : Yes, but they aren't here yet.

A : (the office supply company, find out, delayed, and, the order, why, is, call).

(2) A : Can you take a picture of us here in front of the castle?

B : Oh, no! I must have left my smartphone in your car.

A : We can still use mine, (as, it's, new, even, yours, as, not, though).

(3) A : May I help you?

B : Yes, (appointment, Mr. Baker, a, six, with, have, I, o'clock).

A : Mr. Baker is expecting you. His office is on the 35th floor.

(4) A : Ms. Kato (message, this, her, later, call, left, to, a, you, for) afternoon.

B : Did she say what she wanted?

A : She wants to discuss the new project. She'll be in her office after three.

(5) A : (too, you, to, sometime, meet, next, are, busy, me) week?

B : Any day but Monday. Would Wednesday afternoon be convenient for you?

A : Actually, it's not. How about Friday morning?

問 2 以下の英文の空欄に入る語を，文脈から考えて枠内から選び，その記号を
解答用紙に記入しなさい。ただし，各語は1回しか使わないこと。

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(Peter Trudgill, *Sociolinguistics: An Introduction to Language and Society*,
Penguin Books, 1995. 一部変更)

〔注〕

climatic: connected with the weather of a particular area

- | | | |
|----------------|------------------|-----------------|
| (A) engage | (B) fact | (C) avoid |
| (D) conditions | (E) relationship | (F) information |
| (G) direct | (H) embarrassing | (I) function |
| (J) opinion | | |

3 次の英文を読んで、設問に答えなさい。

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(Po Bronson. *What Should I Do with My Life?*, Ballantine Books, 2005. 一部変更)

〔注〕

stipend: income, earnings

scorch(ed): to dry up, to wither

foreclose(d): to take possession of a property when a debt is not paid

eviction notice: a letter that informs residents to leave the property

問 1 Choose the closest meaning of the underlined words (1)―(5) in the given context and write the letter a, b, c, or d on your answer sheet.

(1) drop out

- a. to leave a school before finishing the course
- b. to take someone outside
- c. to give up his belongings
- d. to bring out the best in a person

(2) halted

- a. started
- b. developed
- c. decreased
- d. paused

- (3) desperate
- a. hoping to look pleasant
 - b. getting angry
 - c. seeming calm
 - d. trying intensely in despair

- (4) employee
- a. assistant
 - b. worker
 - c. graduate
 - d. board

- (5) emphasize
- a. say strongly
 - b. play down
 - c. clear up
 - d. whisper lightly

問 2 For the following statements (1)—(5), circle T if the statement is true or F if the statement is false on your answer sheet.

- (1) After Stephen became an electrician, he still thought about furthering his education.
- (2) Stephen and Camille lost their jobs due to a scorching fire that spread around in the Castro Valley neighborhood in the 1990s.
- (3) Stephen applied for a job opening at Dominican College which was just looking for someone who could repair a broken air conditioner.
- (4) As Stephen attended college classes, he came to the conclusion that he was not necessarily inferior to others.
- (5) The energy crisis in California was a chance for Stephen to return to his former occupation as an electrician.

問 3 Choose the correct answer for questions (1)—(5) below and write the letter a, b, c, or d on your answer sheet.

- (1) What caused Stephen to give up his dream of becoming an architect?
- a. He was born into a family of tradesmen.
 - b. He got married in college.
 - c. He needed money for his family.
 - d. He enjoyed his work as an electrician.
- (2) Which statement best describes Camille?
- a. She was Stephen's first wife.
 - b. She was a good English teacher for foreign students.
 - c. She was able to recognize Stephen's potential.
 - d. She was a diligent housemaker.
- (3) What led Stephen to get a work position at Dominican College?
- a. He was skilled at repairing broken air conditioners.
 - b. He often visited the facilities manager in the corner.
 - c. He had impressive work experience in the past at a major firm.
 - d. He was persistent and willing to work without compensation for a while.
- (4) What is implied by the underlined part Why not? Why not me? in paragraph 6?
- (A)
- a. "There is no reason I can't be successful."
 - b. "I don't understand why I should be successful."
 - c. "I can't decide whether I'm successful or not."
 - d. "Self-determination calls for questioning myself."

- (5) What accounted for Stephen's success?
- a. Believing in himself that he can do whatever others can do
 - b. Building character despite adverse circumstances
 - c. Establishing his own business immediately after getting a college degree
 - d. Depending on luck to work randomly in his life

4 次の英文を読んで，設問に答えなさい。

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(Diana Kwon. *Scientific American*, vol. 318, Scientific American Inc., 2018.
一部変更)

[注]

roboticist(s): a robot scientist

neuroscientist(s): a nervous system scientist

feline: a member of the cat family

algorithm(s): a computer program

cortex: the outer layer of the brain

問 1 Fill in the blanks ①—⑤ with the appropriate word or phrase below each statement. Write the letter a, b, c, or d on your answer sheet.

(1) Since the beginning of the 21st century, roboticists, neuroscientists and psychologists have been exploring ways to build machines that mimic such (①) development.

- | | |
|--------------|----------------|
| a. defective | b. spontaneous |
| c. reluctant | d. compulsive |

(2) Next time you encounter a furry feline, you offer (②) before trying to touch it.

- | | |
|----------|-----------------|
| a. tuna | b. discipline |
| c. smile | d. disinfection |

(3) “The prediction error signal drives the system toward (③) of what’s really out there,” says Rajesh P.N.Rao, a computational neuroscientist at the University of Washington.

- | | |
|----------------|----------------|
| a. confusion | b. abandonment |
| c. experiences | d. estimates |

(4) A toddler, for example, will likely choose to play with a toy car rather than with a 100-piece jigsaw puzzle—arguably because her level of knowledge will allow her to generate more testable hypotheses about (④).

- | | |
|---------------|---------------|
| a. the others | b. the other |
| c. the former | d. the latter |

- (5) To Oudeyer, these varied outcomes suggest that even with identical programming and a similar educational environment, robots may attain (⑤) skill levels — much like what happens in a typical classroom.
- a . identical b . similar c . different d . difficult

問 2 Choose the most appropriate answer for the following questions (1) — (4).

Write the letter a, b, c, or d on your answer sheet.

- (1) What is a function of the higher processing centers in our visual systems?
(A)
- a . to send a basic visual image
b . to process basic features of an image
c . to interpret the overall meaning of a scene
d . to distinguish visual signals from audio ones
- (2) What brings about a prediction error?
(B)
- a . the interaction between downward and upward signals
b . the downward signals
c . the upward signals
d . the guesses and expectations
- (3) What could such predictive coding enable the artificial neural network to do?
(C)
- a . To identify characteristics of an image
b . To carry sensory signals to the human brain
c . To bring sensory signals from the outside world
d . To identify visual cortex in the brain

(4) What does this theory mean?

- (D)
- a. A toddler chooses to play with a toy car due to his gender preference.
 - b. A toddler chooses to play with more sophisticated objects.
 - c. Children seek out more complex objects.
 - d. Children seek out objects depending on their learnability.

問 3 The following passages are the descriptions for the key concepts in the article. Choose the most appropriate words or phrases for the blanks of the following passages (1)—(4). Write the letter a, b, c, or d on your answer sheet.

(1) Predictive Brain

Our minds are prediction machines, using prior experience and knowledge to make sense of the deluge of information coming from our surroundings. Many neuroscientists and psychologists believe that nearly everything we do—perception, action and learning—relies on making and updating ().

- a. explorations
- b. expectations
- c. expansions
- d. expeditions

(2) Visual Processing

Neuroscientists support the idea of predictive processing. The visual cortex, for example, receives inputs from the eye, but connections also run in the other direction. They believe that these “downward” connections, from higher levels of the brain to the lower, carry predictions. These meet with the sensory input to generate a prediction error: the difference between beliefs and (). A signal coding this discrepancy returns to the higher levels of the brain. Other downward signals send commands to move the eye muscles, adjusting what we see.

- a. reality
- b. prediction
- c. prejudice
- d. confidence

(3) AI Learning

In the artificial neural network modeled on the human brain, attempts have been made to minimize a prediction error, which allows AI to identify distinctive features of an object. Take the process of recognizing a zebra, whose features include four legs, large ears, and black and white stripes. Visual images of these features are coded and retained () to form internal models. The image recognition accuracy is thus autonomously enhanced in an AI learning loop.

- a. in style
- b. by contrast
- c. by repetition
- d. in reverse

(4) Curiosity Engines

When infants encounter the unknown, their () drives them to explore it by adjusting prediction errors. The robotic systems equipped with this feature voluntarily pursue significant tasks worth learning. This curiosity-driven exploration allows robots to communicate spontaneously with each other.

- a. side effect
- b. solid object
- c. sensory organ
- d. intrinsic motivation