平成30年度入学試験問題

外 国 語 （英 語）

注 意 事 項

1　この問題冊子は、試験開始の合図があるまで開いてはならない。

2　問題冊子は、全部で10ページある。（落丁、乱丁、印刷不鮮明の箇所などが
あった場合は申し出ること。）

3　解答は、すべて解答用紙の指定された箇所に記入すること。

4　受験番号は、各解答用紙の指定された2箇所に必ず記入すること。

5　解答時間は、教育学部学校教員養成課程教科教育コース英語教育専修が100分、
教育学部（学校教員養成課程教科教育コース英語教育専修を除く）およびその他の
学部は90分である。解答すべき問題（○印）および解答用紙の枚数は、下表のとお
りである。

受　　　験　　　者	解答すべき問題（○印）				解答用紙の枚数
	Ⅰ	Ⅱ	Ⅲ	Ⅳ	
人 文 学 部	○	○	○		3
教育学部（学校教員養成課程教科教育コース英語教育専修を除く）	○	○	○		3
教育学部（学校教員養成課程教科教育コース英語教育専修）	○	○	○	○	4
法 学 部	○	○	○		3
経 済 学 部	○	○	○		3
理 学 部	○	○	○		3
医 学 部	○	○	○		3
歯 学 部	○	○	○		3
工 学 部	○	○	○		3
農 学 部	○	○	○		3
創 生 学 部	○	○	○		3

　　教育学部学校教員養成課程教科教育コース英語教育専修のリスニングテストは、
試験開始70分後に約15分間実施する。

6　下書きは、問題冊子の余白を使用すること。

7　問題冊子は、持ち帰ること。

　〔全学部受験者用〕次の英文を読んで、下の問いに答えなさい。

In late 2009, Swedish ad agency DDB Stockholm launched an online campaign for Volkswagen. Volkswagen was releasing a new eco-friendly car that was designed to make driving more fun, so DDB named the campaign (a)The Fun Theory. "Fun can change people's behavior for the better," one executive explained, so perhaps a dose of fun would nudge drivers to try the new car. To generate buzz, DDB launched a series of clever experiments around Stockholm. Each one turned an otherwise mundane behavior into a game.

(b)The first experiment took place at central Stockholm's Odenplan metro station. Commuters had two options when exiting the station: to walk up a bank of twenty-four stairs, or to stand still on a narrow escalator. Surveillance footage showed that commuters were lazy by default, piling onto the crowded escalator rather than taking the empty staircase. The problem, DDB explained, is that stairs aren't fun. So, late one evening, a team of workers converted the staircase into an electronic piano. Each stair became a piano key that played a loud tone in response to pressure. In the morning, commuters approached Odenplan's exit as they usually did. At first, most took the escalator, but a few happened to take the stairs, unintentionally composing brief melodies as they left the station. Other commuters took note, and soon the stairs were more popular than the escalator. According to the video, "66 percent more people than normal chose the stairs over the escalator." People flock when you turn a mundane experience into a game.

DDB released (c)other experiments as the campaign gathered steam. At a popular park, an electronics expert created the "deepest bin in the world" — a trash can rigged to emit an echo implying that each piece of garbage plummeted before crashing far below. Other cans in the park attracted eighty pounds of trash each day; the deepest can attracted twice as much. Elsewhere, people were misusing recycling bins around the city, so DDB turned one bin into an arcade game. The game rewarded people who used the bin correctly with flashing lights and points that were recorded on a large, red display. An average of just two people used most nearby bins correctly each day; more than a hundred people used the arcade

30 bin correctly each day.

The campaign was wildly successful. The videos attracted a combined total of more than thirty million YouTube hits, and plenty of online buzz. In 2010, DDB won the Cyber Grand Prix Lion at the world's largest advertising festival ― an enormous honor bestowed on the "world's most celebrated viral campaigns." Beyond
35 industry plaudits, the campaign also changed how people behaved.   (d)For a brief time, the people of Stockholm were slightly greener and healthier.

(Adapted from Adam Alter, *Irresistible: The Rise of Addictive Technology and the Business of Keeping Us Hooked*, Penguin, 2017)

〔注〕　ad agency　広告代理店　　　　　Volkswagen　ドイツの自動車メーカー
　　　　nudge　促す　　　　　　Odenplan　ウーデンプラン（駅名）
　　　　surveillance footage　監視カメラの映像　　　　bin＝trash can
　　　　rigged to 〜　〜するような仕掛けをした　　　　plummet　落下する
　　　　plaudits　喝采

問1.　下線部(a)は、どのような発想に基づく名称か。本文に即して、句読点を含めて40字以内の日本語で述べなさい。

問2.　下線部(b)の実験では、どのような仕掛けがなされたか。本文に即して、句読点を含めて40字以内の日本語で述べなさい。

問3.　下線部(c)の例として本文中で挙げられている2種類のゴミ箱の特徴を、句読点を含めてそれぞれ40字以内の日本語で述べなさい。

問4.　下線部(d)は、具体的にどのようなことを述べているか。本文に即して，句読点を含めて100字以内の日本語で述べなさい。

(a)An elephant should run faster than a horse — at least in theory. That's because big creatures have more of the type of muscle cells used for acceleration. Yet mid-sized animals are the fastest on Earth, a trend that researchers have long struggled to explain. Now, an analysis of nearly 500 species ranging from fruit flies to whales has an answer: The muscle cells in big animals run out of fuel before the creatures can reach their theoretical maximum speed. The work may also help scientists come up with estimates for the running speeds of certain dinosaurs.

Previous studies of animal speed have focused only on certain groups of animals, such as mammals. But that premise often looks at creatures within a limited size range, says Myriam Hirt, a zoologist at the German Centre for Integrative Biodiversity Research in Leipzig. That approach may also hide underlying factors by focusing on animals that are closely related, she notes.

To get around those limitations, Hirt and her colleagues looked at previously collected data for a wide variety of creatures, including ectotherms (so-called cold-blooded animals) as well as warm-blooded endotherms. The 474 species they considered included runners, swimmers, and flyers that ranged in weight from 30 micrograms to 100 tons.

(b)When the scientists mapped a creature's top speed versus its weight, they got an inverted-U-shaped graph, with moderately sized animals on top, they report today in *Nature Ecology and Evolution*. On the largest scale, the trend doesn't seem to be related to biomechanics, or how an animal's body parts are arranged and how its joints function, among other factors, Hirt says.

The fastest animals on Earth — whether they run, swim, or fly — are mid-sized creatures, not the miniscule or the mighty. That trend is driven by metabolic constraints in muscle tissue, a new study suggests. Very large animals have more "fast-twitch" muscle fibers needed during a sprint and can in theory accelerate for longer periods, but those tissues soon run out of oxygen and thus reach max performance long before supermassive creatures ever reach their theoretical maximum speed.

Instead, it appears to be related to a much more fundamental metabolic constraint: the length of time required for the animal to reach its theoretical maximum speed, based on the number of "fast-twitch" muscle fiber cells in the creature's muscles, as compared to the length of time it takes for those cells to run out of readily available energy. ("Fast-twitch" muscle fibers contract more quickly than "slow-twitch" fibers and generate more force more quickly, but they also fatigue more quickly.) According to the researchers' notion, (c) the "fast-twitch" muscle fibers in immense creatures such as elephants and whales run out of cellular fuel long before they can reach max speed based on the overall number of such fibers.

The study is also a good starting point for revealing other factors that influence a creature's maximum speed, says Christofer Clemente, an ecophysiologist at the University of the Sunshine Coast in Maroochydore, Australia, who wasn't involved in the research. One such unexplained trend is that warm-blooded land animals are usually faster than cold-blooded creatures of comparable size, whereas at sea (d) the reverse is usually true.

(Adapted from Sid Perkins, "Why midsized animals are the fastest on Earth," News from *Science*, July 2017)

〔注〕　map　マッピングする（値を座標に配置する）
　　　　metabolic　代謝の
　　　　fast-twitch　急激に収縮する
　　　　slow-twitch　ゆっくり収縮する

問1．下線部(a)を和訳しなさい。

問2．下線部(b)を和訳しなさい。

問3．下線部(c)を和訳しなさい。

問4．下線部(d)の内容を、句読点を含めて40字以内の日本語で述べなさい。

　〔全学部受験者用〕次の問題 A、B に答えなさい。

問題 A．下線部(a)、(b)を英訳しなさい。

Doctor:　What can I do for you, Mr Wilson?

Patient:　Well, Doctor, (a)2、3日前から熱があって、首にぶつぶつができちゃったんです。　Do you see?　These red spots here.

Doctor:　Hmm.　Let's take a look.

Patient:　It's very irritating and I have trouble getting off to sleep at night. Then (b)一日中気分が悪いし、仕事に集中できないんです。

Doctor:　Right.　I don't think it's anything serious.　I'll write you out a prescription for some lotion which should help to clear up the rash.

(出典：F. O'Dell & M. McCarthy, *English Collocations in Use Advanced*, CUP, 2017)

問題 B．Imagine that you are going to go on a trip to England on a student exchange program.　You will give a short talk about your country.　Write a speech for people from England that tells them some interesting or unique points about the culture or customs of your country.　Write about 100 words in English.　The first sentence of the speech is given for you on the answer sheet.

・解答欄末尾の所定の箇所に、解答に用いた語の数を「（100 words）」のように必ず記すこと。

・ただし、解答欄に印刷されている部分およびピリオドやコンマなどの句読点は語数に含めません。

IV 〔教育学部学校教員養成課程教科教育コース英語教育専修受験者用〕

リスニングテスト

注意事項

・リスニングテスト中は、質問をすることはできません。

・机、椅子などを動かしたり、物音を立てたりしないようにしてください。

・風邪をひいている人は、咳をするのをなるべく我慢してください。

・問題は、AとBの2題あります。

・問題Aも問題Bも2回読まれます。問題Aについては1から5の設問ごとに2回読まれます。

・問題Aと問題Bの間に20秒程度の空白があります。

・音声を聴きながら、問題冊子の空欄にメモをとってもかまいません。

問題 A. Listen to the dialogues and fill in the blanks with the words you hear.

1. 〔P: Passenger, T: Taxi Driver〕

P: I'd like to go to the airport, please.

T: Certainly, sir. Shall I put your baggage in the trunk?

P: Yes. Thank you. (　　　　　　　　　).

2. 〔S1: Student 1, S2: Student 2〕

S1: Hi. I'm a new student here and I'm trying to find my classroom.

S2: OK. Do you know the room number?

S1: Yes. It's Room 3B.

S2: OK. You need to go to the third floor. (　　　　　　　　　).

3. 〔T: Teacher, S: Student〕

T: All right everyone. Remember that we have swimming class tomorrow.

S: What do we need to bring?

T: Everyone needs to bring their swimming costumes and goggles.

(　　　　　　　　　).

4. 〔M: Museum Guide, T: Tourist〕

M: And over here we have a large collection of dinosaur specimens.

T: What is that one there called?

M: That is a Tyrannosaurus rex. It was a large meat eater. It was

(　　　　　　　　　).

5. 〔S1: Student 1, S2: Student 2〕

S1: I hear that the teachers in the English Department are excellent.

S2: Yes, (　　　　　　　　　).

問題 B. Listen to Joe's story and answer the questions in Japanese.

受験番号

Ｈ1

受験番号

平成 30 年度入学試験解答用紙

外 国 語（英 語）　（4枚の1）

〔全学部受験者用〕

Ⅰ

問 1.

問 2.

問 3.

問 4.

受験番号 [　|　|　|　|　|　|　]

H 1

評点	Ⅱ	
		0

小数点

受験番号 [　|　|　|　|　|　]

平成 30 年度入学試験解答用紙

外　国　語（英　語）　（4 枚の 2）

〔全学部受験者用〕

評点	Ⅱ	
		0

小数点

Ⅱ

問 1. _____

_____

_____

_____

問 2. _____

_____

_____

_____

問 3. _____

_____

_____

_____

問 4.

受験
番号

H 1

平成 30 年度入学試験解答用紙

外 国 語（英 語）（4 枚の 3）

〔全学部受験者用〕

受験
番号

Ⅲ

問題 A.

(a)

(b)

問題 B.

Today, I'd like to talk about my country.

(words)

評点		Ⅳ	
			0

小数点

受験番号

Ｈ１

受験番号

平成 30 年度入学試験解答用紙

外　国　語（英　語）　（4 枚の 4）

〔教育学部学校教員養成課程教科教育コース英語教育専修受験者用〕

評点		Ⅳ	
			0

小数点

Ⅳ

問題 A.

1.

2.

3.

4.

5.

問題 B.

1.

2.

3.

4.