平成29年度　　〔試験時間　60分〕

Z 6　英　語

この冊子は，英語の問題で1ページより8ページまであります。

〔注　　意〕

(1) 試験開始の指示があるまで，この冊子を開いてはいけません。

(2) 監督者から受験番号等記入の指示があったら，解答用紙に受験番号と氏名を記入してください。また，解答用マークシートに受験番号と氏名を記入し，さらに受験番号をマークしてください。

(3) 解答は，所定の解答用紙に記入したもの及び解答用マークシートにマークしたものだけが採点されます。

(4) 解答用マークシートについて

① 解答用マークシートは，絶対に折り曲げてはいけません。

② マークには黒鉛筆(ＨＢまたはB)を使用してください。
指定の黒鉛筆以外でマークした場合，採点できないことがあります。

③ 誤ってマークした場合は，消しゴムで丁寧に消し，消しくずを完全に取り除いたうえ，新たにマークしてください。

④ 解答欄のマークは，横1行について1箇所に限ります。
2箇所以上マークすると採点されません。
あいまいなマークは無効となるので，はっきりマークしてください。

⑤ 解答用マークシートに記載されている解答上の注意事項を，必ず読んでから解答してください。

(5) 試験開始の指示があったら，初めに問題冊子のページ数を確認してください。
ページの落丁・乱丁，印刷不鮮明等に気づいた場合は，手を挙げて監督者に知らせてください。

(6) 問題冊子は，試験終了後，持ち帰ってください。

1 Read the following passage, and answer the questions below. (52 points)

There are known knowns and known unknowns, but what we should be worried about most is the unknown unknowns. Not because they are the most serious risks we face but because psychology tells us that unclear risks in the distant future are the risks we're less likely to take seriously enough (A).

At least four distinct psychological mechanisms are at (　　) (1). First, we are moved more by vivid information than by abstract information (even when the abstract information should in principle (2) dominate). Second, we discount the future, rushing for the dollar now as opposed to the two dollars we could have a year later if we waited. Third, the focusing illusion (itself perhaps driven by the more general phenomenon of priming*) tends to make us dwell on (3) our most immediate problems even if more serious problems loom* in the background. Fourth, we have a tendency to believe in a just (4) world, in which nature naturally rights itself.

These four mechanisms likely derive from (5) different sources, some stemming from systems that govern motivation (future discounting), others from systems that mediate pleasure (belief in a just (4) world), others from the structure of our memory (the focusing illusion, and the bias from vividness). Whatever their source, the four together create a potent psychological drive for us to underweight distant future risks we cannot fully envision.

Climate change is a case (6) in point. In 1975, the Columbia University geochemist Wallace S. Broecker published an important and prescient* article in *Science* called "Climate Change: Are We on the Brink of a Pronounced Global Warming?" but his worries were ignored for decades, in part because many people presumed, fallaciously*, that nature would somehow automatically set itself right. (And in keeping with our tendency to draw inference primarily from vivid information, a well-crafted feature film on climate change played a significant (　　) (7) in gathering public attention, arguably far more so than

the original *Science* article.)

Oxford philosopher Nick Bostrom has pointed out that the three greatest unknowns we should worry about are biotechnology, nanotechnology, and the rise of machines more intelligent than human beings. Each sounds like science fiction and has in fact been portrayed in science fiction, but each poses genuine threats. Bostrom posits "existential* risks"—possible, if unlikely, calamities that would ((a)) our entire species, much as an asteroid* (8) appears to ((b)) the dinosaurs. Importantly, many of these risks, in his judgment, exceed the existential risk of other concerns that occupy a considerably greater share of public attention. Climate change may be more likely, and certainly is more vivid, but is less apt to lead to the extinction of the human species (even though it could conceivably kill a significant fraction).

The truth is, we simply don't know enough about the potential biotechnology, nanotechnology, or future iterations* of artificial intelligence to calculate what their risks are. Compelling arguments have been made that in (2) principle any of the three could lead to human extinction. These risks may prove manageable, but I don't think we can manage them if we don't take them seriously. In the long run, biotech, nanotech, and AI are probably significantly more likely to help the species, by increasing productivity and limiting disease, than they are to destroy it. But we need to invest more in figuring out (9) exactly what the risks are and preparing for them. Right now, the United States spends more than $2.5 billion dollars a year studying climate change but (by my informal reckoning) less than 1 percent of that total studying the risk of biotech, nanotech, and AI.

What we really should be worried about is that we are not quite doing enough to prepare for the unknown.

(Notes) **priming** : preparing someone for a situation by giving them information about it beforehand

loom : appear as a vague form

prescient : able to know what will happen in the future

fallaciously : based on a mistaken belief

existential : relating to the state of living

asteroid : a small rocky body that revolves around the sun

iteration : repetition of a process

(1) Which of the items below correctly fills in the blank (1) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 best 2 heart 3 rest 4 work

(2) Which of the items below is the closest in meaning to the underlined parts (2) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 morally 2 naturally 3 properly 4 theoretically

(3) Which of the items below is the closest in meaning to the underlined part (3) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 think at length about 2 solve at once

3 meet by chance 4 lay aside unconsciously

(4) Which of the items below is the closest in meaning to the underlined parts (4) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 an entire 2 a fair 3 an imaginary 4 a small

(5) Which of the items below is the closest in meaning to the underlined part (5) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 lie in　　2 give in　　3 originate in　　4 result in

(6) Which of the items below is the closest in meaning to the underlined part (6) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 a claim　　2 an example　　3 a logic　　4 an opinion

(7) What is the one word that correctly fills in the blank (7) in the passage? Write your answer in Box (7) on **Answer Sheet B.**

(8) Which of the items below shows the pair of words and phrases that correctly fill in the blanks ((a)), ((b)) in the underlined part (8) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 (a) wipe out　　(b) extinguish

2 (a) wipe out　　(b) have extinguished

3 (a) have wiped out　　(b) extinguish

4 (a) have wiped out　　(b) have extinguished

(9) Which of the items below is the closest in meaning to the underlined part (9) in the passage? Consider the context, choose the best one from the following choices, and mark the number on **Answer Sheet A.**

1 clearing　　2 discovering　　3 making　　4 thinking

(10) What is the one word whose meaning is opposite to the underlined part (A)? Choose the word from the passage, and write your answer in Box (10) on Answer Sheet B.

(11) For each of the following statements, mark Answer Sheet A with either T if it is true or F if it is false.

1 There are two types of unknowns.

2 The author shows four examples of unknown unknowns.

3 There exists a potent psychological drive helping us to take the unknown unknowns seriously.

4 Climate change is one of the unknown unknowns.

5 The author is concerned about our unpreparedness for the unknown unknowns.

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2 Choose the correct sentence to fill in each blank from the answer choices, and mark the number on **Answer Sheet A.** (18 points)

"Poirot*," I said, "a change of air would do you good."

"You think so, *mon ami**?"

"((a))."

"Eh — eh" said my friend, smiling. "It is all arranged, then?"

"((b))?"

"Where do you propose to take me?"

"Brighton. As a matter of fact, a friend of mine in the City put me on to a very good thing, and — well, ((c)). I think a weekend at the *Grand Metropolitan* would do us all the good in the world."

"Thank you, I accept most gratefully. ((d)). And the good heart, it is in the end worth all the little gray cells. Yes, yes, I who speak to you am in danger of forgetting that sometimes."

I did not quite relish* the implication. ((e)). But his pleasure was so evident that I put my slight annoyance aside.

((f)), I said hastily.

(Notes) **Poirot** : a Belgian detective created by Agatha Christie (1890-1976). With his brains ("the little gray cells"), he solves different mysterious cases.

mon ami : my friend

relish : enjoy to the full

1 I am sure of it

2 I fancy that Poirot is sometimes a little inclined to underestimate my mental capacities

3 I have money to burn, as the saying goes

4 Then, that's all right

5 You have the good heart to think of an old man

6 You will come

3 Read the following passage. Put the words in each pair of brackets into the correct order. Mark the numbers correctly, from top to bottom, on **Answer Sheet A.** (30 points)

Electronic calculators are precise and never, ever, make mistakes. This at least is what we would like to think. But, in fact, such errors occur all the time. It is just (A)(1 ever 2 hardly 3 notice 4 that 5 we).

Take a pocket calculator, for example, which has buttons for "square" and "square root", and follow this procedure: Press the number 10, then the square root button, and then the square button. As expected, the number 10 appears on the display screen, since the square number of the square root of 10 is, of course, 10. So far so good. Now try this: Press the number 10, then press the square root button 25 times, and (B)(1 by 2 follow 3 pressing 4 the square button 5 up) 25 times. The result, one would expect, should again be 10, but the display shows something like the number 9.9923974. Ordinarily not (C)(1 given 2 is 3 much thought 4 this 5 to 6 rather minor) divergence of 0.07 percent. It is an error one can usually live with. But now repeat the experiment by pressing the square root button and the square button 33 times. The resulting number, 5.5732436 or something similar, no longer (D)(1 any 2 bears 3 real 4 resemblance 5 the 6 to) answer, which, of course, is 10.

The reason for this phenomenon, which occurs without (E)(1 another 2 fail 3 in 4 one way 5 or 6 with) each and every calculator, is the fact that a number can have an infinite number of decimals. An example is the fraction 1/3. Expressing it in decimals results in an infinite number of threes after the decimal point. But calculators can only store a finite amount of numbers. As a general rule, numerical values are truncated* after 15 digits by computers. Thus, very small errors exist between the true numbers and the stored or displayed values.

(Note) **truncated** : shortened by cutting off the end