関西医科大学

医　学　部

2018年度一般入学試験(後期)

英　　語　(問　題)

注　　意

1)　英語の問題冊子は14ページあり，問題は4問である。白紙・空白の部分は下書きに使用してよい。

2)　別に解答用紙1枚があり，解答はすべてこの解答用紙の指定欄に記入すること。指定欄以外への記入はすべて無効である。

3)　**解答用紙の所定欄に受験番号を記入せよ。氏名を記入してはならない。**

なお，記入した受験番号が誤っている場合や無記入の場合は，英語の試験が無効となる。

また，＊印の欄には何も記入してはならない。

4)　問題冊子，解答用紙はともに持ち出してはならない。

5)　試験終了時には，問題冊子の上に解答用紙を裏返しておくこと。解答用紙，問題冊子の回収後，監督者の指示に従い退出すること。

I *Fill in the blanks below with the most suitable English word so that each pair of the following English sentences and their Japanese equivalents represents the same meaning.*

① Your tendency to avoid clearly stating intent (　　) as not to hurt the feelings of others is wonderful.

相手を傷つけまいと本心を言わないのは君の素晴らしいところです。

② Able to keep soup warm for an extended period, these soup pans are also highly prized (　　) the way they retain heat.

保温性がよくて冷めにくい点からも，これらのスープ鍋は高く評価されています。

③ The restaurant is particular (　　) the produce used.

そのレストランは使用する農産物にこだわっている。

④ Bibs and table mats are provided free (　　) charge to parents with small children.

小さな子ども向けに，エプロンやテーブルマットの無料貸し出しがある。

⑤ Since parakeets are pack animals, raising them with other parakeets contributes (　　) making them emotionally stable.

インコはもともと群れで行動する動物なので，仲間と育てる方が情緒の安定に役立ちます。

⑥ With a number display, it's possible to see who's calling and (　　) the basis of this decide whether or not to answer the phone.

番号表示装置で誰からの電話か分かりますから，電話をとっていいかどうかが判断できます。

⑦ We developed attractively-colored sheets (　　) an adhesive that won't come off when wet, but will when you want to remove them.

綺麗な色で，水にぬれてもはがれず，はがすときは簡単にとれるシール付きシートを開発しました。

⑧ One of the great things about Hirakata Park is that they hold a variety of different events throughout the year so that no (　　) what the season, a visit will be fresh and fun.

年間を通じて様々なイベントを開催していて，季節を問わずいつ訪れても新鮮で，楽しいのがひらかたパークの魅力です。

⑨ In Japan, bowing is a sign of respect and the deeper (　　) bow the more the respect given.

日本ではお辞儀は尊敬のしるしで，深ければ深いほど敬意を表すことになります。

⑩ With many tourist attractions being easily (　　), guests can explore the city or relax on the beach.

多くの観光客が行きやすいアトラクションがあり，街を探索したり，浜辺でのんびりしたりできます。

Ⅱ *Answer the following questions.*

(1) *Below are two mathematical questions* (【Question 1】 *and* 【Question 2】) *and their solving methods* (【How to solve 1】 *and* 【How to solve 2】). *Fill in the blanks marked* (①) *through* (⑩) *below with the most suitable Arabic number* (ex.) 1, 2, 3. . .) *or English word. The same answer is inserted in the blanks marked with the same number, while the blanks marked with different numbers do not necessarily mean different answers.*

【Question 1】

There is a straight road of 240 meters in length. On one side of this road from end to end, cherry trees are planted every 15 meters. In this case, how many cherry trees are needed?

【How to solve 1】

Because a cherry tree is planted at both ends of the road, the number of cherry trees becomes the number of spaces between the trees plus (①). When the cherry trees are planted, the number of spaces between the trees is (②). Therefore the cherry trees needed are (③) trees.

【Caution 1】

When there is a tree at both ends, the number of trees becomes (④) more than the number of spaces. Around a pond and the like, when the perimeter is connected, the number of trees and the number of spaces are the (⑤).

【Question 2】

There is a total of 9 birds and cats. The total number of legs is 26. How many of each, birds and cats, are there?

【How to solve 2】

Assuming all 9 are birds, the number of legs is (⑥). Actually because the number of legs is 26, the difference between the number of legs assumed in case all are birds and the actual number of legs is (⑦). The difference between the number of one bird's legs and one cat's legs is (⑧). Because the difference from the actual number is (⑦), the number of cats is (⑨). The number of birds is (⑩).

(2) *In the following paragraphs* (A) *and* (B), *fill in the blanks marked* (⑪) *through* (⑮) *below with the most suitable English word. The same answer is inserted in the blanks marked with the same number, while the blanks marked with different numbers do not necessarily mean different answers. As for the initial letter, use of uppercase or lowercase does not matter.*

(A)

The act of plant seeds producing buds and roots is called germination. In order for seeds to germinate, the three conditions in addition to soil, appropriate amount of (⑪), appropriate (⑫) and air are needed. Neither sunlight nor fertilizer are necessary for germination.

(B)

Humans, if they don't eat, cannot take in nutrients. The nutrients received from food are vitamins and minerals as well as carbohydrates, (⑬) and (⑭), which are called the three (⑮) nutrients.

Carbohydrates primarily become energy to move the body. If we take in too many carbohydrates they become (⑬), and will be stored in the body. (⑭) is needed to make muscle and internal organs. (⑬), in addition to being used as energy, is also used to make the body. Vitamins and minerals are necessary substances for maintaining health and work to keep the body functioning well.

Ⅲ *Read the following passage and answer the questions that follow.*

Biking home along the Capital Crescent Trail one day last fall, I came upon a stream of yellow police tape encircling the Little Falls Parkway crossing.

For bike commuters, cars and their drivers are the ever-present threat. Yellow tape means the worst. The victim that day was Ned Gaylin, a retired University of Maryland professor, killed when one car driver stopped to let him pass but another motorist (①).

I slowly navigated around the tape, telling police along the way that none should be surprised. The intersection was clearly unsafe, as I'd told Montgomery County officials many times, largely because of a design that needlessly gave cars two lanes in each direction.

The officers offered sympathy for Gaylin and his family but indicated that the driver was unlikely to face charges. One officer said the roadway existed before the trail (②). Others explained that a bicycle is legally a vehicle and therefore had no right-of-way in the crosswalk carrying the Capital Crescent Trail across Little Falls Parkway.

A few minutes later and a mile or so to the east, riding along Leland Street, I approached Connecticut Avenue. I started across, pausing for two cars heading northbound. Both cars slowed, (③). I began to do that, but a third vehicle approached, gunning the engine in (④). Given his distance, there probably was time to make it, but it (⑤) seem worth the risk.

As he closed in, I yelled out in (⑥) at what seemed to be yet another of the daily acts of intimidation bicyclists encounter.

These games of chicken — tons of fast-moving metal against a solitary defenseless human — are routine. There's a wide variety of ways to handle them, and I admire my biking friends who manage to grin and ignore it.

Sometimes the drivers don't mean any harm. Sometimes they're willingly

distracted by their phone or someone in the car. And other times, it's pretty clear they're just angry — angry at the traffic, angry at a passenger, angry at whatever.

Given that power relationship, car drivers routinely dispense free advice to bicyclists on matters of road safety and take great offense at any reversal of their motor-given authority. The driver on Connecticut responded by slamming on his brakes, blocking me from crossing the road and then getting out and shoving me to the ground. He jumped back in his SUV and sped off.

I've been a daily bike commuter for about 10 years, for a variety of reasons. Increasingly, the most important is my health: I'm facing a kidney transplant because of an inherited disease and keeping active is especially critical to my long-term survival.

Each day I get on the bike is a little tougher as the disease progresses. Co-workers are often amazed that I and others bike regardless of weather conditions. But by far, the greatest concern — the thing that makes me pause each day before setting out from home — is the threat posed by car drivers.

I'm far more often slowed by (⑦) while riding a bike than slowed by (⑧) while driving a car. And even if momentarily inconvenienced by a bicyclist, a car driver gets an overall benefit from that bicyclist not putting another car on the road.

It's really that simple: Car drivers could reduce the aggravating congestion they face each day if they made bicyclists feel safer rather ⑨[can / doing / than / they / to / what] make them feel menaced.

After the SUV driver on Connecticut Avenue sped off, I called the police and provided the driver's vehicle information. The police showed little interest in finding him. One officer chose to berate me, saying a bicycle is not a vehicle and therefore did not have a right to cross Connecticut at Leland.

Back at the Capital Crescent Trail, the police who had just given me the exact opposite bike-vehicle interpretation (⑩) show one consistency with

their counterpart at Connecticut Avenue: blame the bicyclist. For several days, the police stationed themselves along the trail, stopping bicyclists to chastise them on bike safety, leaving the cars on Little Falls Parkway to race past the scene.

There has been some progress. County officials installed barricades that limit Little Falls Parkway to a single lane in each direction. This prompted grumbling from some motorists, but in reality it does little to slow their cars because the road is a single lane just a block away.

And this month, with almost (⑪) help from the county police, a county prosecutor won a ruling against the motorist who assaulted me. He was sentenced to 10 days in jail, suspended pending successful completion of probation and eight hours of community service.
⑫

During the trial, the driver's lawyer repeatedly and falsely suggested that a bicyclist had(⑬) legal right to cross Connecticut at Leland because no crosswalk was present. The county prosecutor didn't challenge the contention, apparently because assault would not have been justified either way.

But for bicyclists looking for encouragement from their government and from their fellow motorists — or at least some measure of even-handed treatment — there remains no clear verdict.

(The Washington Post, March 24, 2017. "It's this simple: If car drivers made bicyclists feel safer, we'd all be better off" By Paul Basken)

1 *Fill in the blanks marked* (①) *and* (⑤) *with the same English word. Fill in the blanks marked* (②) *and* (⑩) *with the same English word. Also, fill in the blanks marked* (⑪) *and* (⑬) *with the same English word starting with the letter 'n'.*

2 *For the blanks marked* (③), (④), *and* (⑥), *select the most suitable phrase to be filled from the following choices and answer by the letter* 'ア', 'イ', *or* 'ウ'.

ア a clear attempt to head me off

イ frustration and futile protest

ウ a clear invitation for me to pass

3 *Select the correct word to fill in the blanks marked* (⑦) *and* (⑧) *between the two choices below.*

bikes *cars*

4 *Rearrange the words in the bracket marked* ⑨ *to make a correct sentence. On your answer sheet, write the word which comes to the* ＿＊＿ *position below.*

⑨ [＿＿＿ ＿＿＿ ＊ ＿＿＿ ＿＿＿ ＿＿＿]

5 *Translate the underlined phrase marked* ⑫ *into Japanese.*

Ⅳ *Read the following passage and answer the questions that follow.*

It is so easy to read meaning into the smallest things① after a tragedy. In a 2006 interview, Robin Williams talked openly about his mood swings. "Do I perform sometimes in a manic style? Yes. Am I manic all the time? No. Do I get sad? Oh yeah. Does it hit me hard? Oh yeah." He didn't say that he'd been clinically diagnosed with a specific disorder, but his publicist has confirmed that Williams had been battling depression in the months leading up to his suicide.

Among the hundreds of tributes to Williams' warmth and comic genius, many have pointed out that his death highlights, yet again, the many misconceptions and stigmas surrounding mental health problems. NBC News has a thoughtful piece about the "deadly stigma" surrounding this "silent epidemic"② — suicide is rarely discussed, despite the fact that it is a growing issue; more people in the United States now die of suicide than in automobile accidents. Then there are people who still consider suicide a "selfish act" that can be cured with willpower. It is sad we are even having these discussions. Tony Blair's former spin doctor, Alistair Campbell, who has himself suffered from mental health problems, best described the misunderstandings in an article for the Guardian: "If he'd had a heart attack, lost a fight with cancer or been knocked over by a car, would there be a need for a debate about (③) this says about the state of heart disease, or cancer care or road safety?"

Yet even once the taboos have been broken, we still have a long way to go if we are to treat suicidal feelings with the same precision as other diseases. Anti-depressant drugs and cognitive behavioural therapy seem to reduce suicidal thoughts for many people with depression — but they are not a perfect cure for every patient. Why some respond, while others don't, has been the matter of much soul searching, but recent research is helping to shed a little light on this dark state of mind.

For instance, there is a growing recognition that the disease we call "depression" could be an umbrella-term ④ covering many distinct problems, each with a different biological origin. In particular, a suicide attempt may be foreshadowed by a string of neurological changes that are not found in people with other kinds of depression. Of the most noticeable differences, patients who have tried to kill themselves seem to have less of the white-matter connections that transmit information in the dorsomedial prefrontal cortex — the part of the brain right behind your forehead's hairline. That's significant, since this region helps us process our self-awareness.

People who try to kill themselves seem to get stuck in ruminative, negative styles of thinking full of self-criticism — so the study's authors wonder if the neurological changes could lie behind those destructive trains of thought, blinding people to the hope and promise of the future, and even (⑤) their sense of their own self-worth.

People feeling suicidal thoughts also seem to have reduced connectivity in the frontal areas of the brain associated with emotional control and inhibition. Again, the consequences of this are hypothetical, but suicide is considered to be an impulsive action, so it could be that the abnormal wiring in these regions makes it harder for someone to cope with the urge for self-destruction. On top of these specific changes, the brain cells themselves seem to be wasting away across diverse regions of the brain, potentially impairing problem solving and decision making — cognitive problems that are commonly seen in people who have attempted suicide.

At the moment, it's not clear (③) triggers these anatomical changes and whether they are the primary cause of the suicidal urges — it could be that they are just a side-effect of the depressed, desperate feelings that the patient is already experiencing. Most likely, the psychological symptoms and the altered brain wiring are both the result of a complex interplay between your genes and your circumstances.

Once we have picked apart ⑥ the specific mechanism, this new understanding could eventually change the way we treat people with depression. Firstly, it could help identify (⑦) is most at risk for suicidal tendencies. Many suicidal patients are unlikely to tell anyone, even their doctors, about their darkest feelings — but a brain scan might reveal those characteristic anatomical changes, giving doctors an insight that they couldn't have gained from an interview. Since neural degeneration — such as the death of neurons — has certain chemical signatures, some have suggested that blood tests could one day reveal the early signs that could precede a suicide attempt. Preliminary explorations of the technique have been positive, but much larger trials will be needed (⑧) any form of this test could be used in the clinic.

Once the patients' particular needs have been identified, the work could then tailor treatments that best suit the particular type of depression they have. Doses of lithium, for instance, seem to replenish the grey matter in damaged areas of the suicidal brain; and studies have found that the drugs do indeed reduce the risk of a second suicide attempt, when applied to people with bipolar disorder who have already attempted to take their life once. Other drugs could have a similar function.

Kees van Heeringen at the Unit for Suicide Research in Ghent University in Belgium has proposed that upcoming, non-invasive forms of brain stimulation like transcranial magnetic stimulation (TMS) could also be (⑤) interest. Using a magnet on the scalp, TMS can boost or reduce the electrical activity in specific parts of the brain — sometimes with long-lasting effects. It has already helped bring relief to people with other kinds of depression that had resisted treatment, and it could potentially target the regions most affected in people with suicidal feelings, curtailing their destructive urges. A better understanding of the brain changes involved — and the way it influences someone's thinking — may even help refine the talking therapies by helping to identify the thought processes that are most severely disrupted as a consequence, says van Heeringen.

It is unlikely that any single treatment will ever be a panacea for people suffering from severe and suicidal depression. Instead, the strength of this new approach lies in the many different strands; where there was once a murky darkness, neuroscientists and psychiatrists are now beginning to see a kaleidoscope of new options. If they can be adapted to each patient's specific circumstances that might save an enormous number of lives from being needlessly taken from the world.

(BBC News, August 14, 2014. "Should we be treating suicide differently?" By David Robson)

1 *In accordance with the passage, put the letter "O" if each of the following sentences is true, and "X" if it is not on your answer sheet.*

(1) The mechanism of the occurrence of suicidal feelings is not understood as precisely as that of the occurrence of other diseases.

(2) The study in this article confirms that the series of negative and destructive thoughts that patients with depression have is caused by a particular neurological change.

(3) There is a high possibility that the various psychological and physical symptoms that depression brings about are due to both our genes and our environment.

(4) Currently, a blood test can inform you whether you have a risk factor for suicide or not.

(5) It is still uncertain whether the drugs that treat certain pathological changes in the brain help the patients who have tried to take their life once to reduce suicidal wishes.

(6) According to a researcher in this article, if we can make clear the brain changes associated with depression, talk therapy will become more effective.

(7) The ultimate goal of depression treatment is to discover one-size-fits-all medicine curing all the patients with depression.

2 *Translate the underlined phrase marked ① into Japanese.*

3 *Explain the meaning of the underlined phrase marked ② and the word marked ④ in Japanese, using expressions similar to the text.*

4 *Fill in the blanks marked ③, ⑤, ⑦, and ⑧ with the most suitable English word to complete each sentence. Numbers may be repeated in the text.*

5 *Select the meaning of the underlined phrase marked ⑥ from the following choices and answer by the letter 'ア' through 'エ'.*

ア discovered

イ continued searching for

ウ analyzed in great detail

エ recognized