

# 平成 21 年 度 入 学 試 験 問 題

## 英 語

### 筆 記 試 験 問 題

(試験時間 9 : 30 ~ 11 : 10)

#### 注 意 事 項

試験開始後、問題冊子及び答案用紙のページを確かめ、落丁、乱丁あるいは印刷が不鮮明なものがあれば、新しいものと交換するので挙手すること。

1. 試験開始の合図まで問題用紙を開かないこと。
2. 解答は、必ず答案用紙の指定されたところに記入すること。
3. 答案用紙の回収は試験終了(11:10)後に行う。
4. 答案用紙は持ち出さないこと。

**A** 次の英文を読み、後続く問いに答えなさい。

Since 1991, the Institute of Heart Studies in Boulder Creek, California has generated a large body of convincing scientific evidence that the heart is more important than the brain to overall health and well-being. Its dominance inside the body <sup>(1)</sup> is now clearly established. Thinking clearly with your brain is useful. But feeling positively from your heart provides amazing benefits to health and creativity.

The Institute's research team has discovered that certain patterns in the heart rhythm correspond to a particular emotional state. This means that feelings of compassion, love, care and appreciation produce a smooth heart rhythm, while feelings of anger, frustration, fear and danger produce an irregular rhythm.

When people experience positive emotions, they not only feel happy and joyful, but they also produce, for example, more DHEA, the hormone that prevents aging, and gives us feelings of youthful vitality. In addition, blood pressure stabilizes. Dr. McCraty of the Heart Institute says, "There is a clear connection between healthcare costs and blood pressure levels. When your blood pressure falls, so do visits to the doctor. . . ."

Since 2000 the Institute has developed a number of relaxation exercises that anyone can do anywhere in a few minutes to produce positive feelings and reduce stress. A group of managers from Hewlett-Packard attended an Institute workshop and were tested six months later on the results of their daily exercises. The average blood pressure fell from 138/86 to 128/80. Such a large improvement is comparable to the effect of losing nearly 20 kilos (44 pounds).

Less stress and more health is, of course, enough of a recommendation for following the Institute's system. But there's more: studies show that the electromagnetic field of the heart (which is created by the heart's electrical

system, or electrocardiogram) can be measured from between two and three meters from the body. The Institute has discovered that if someone has a smooth heart rhythm, it has a demonstrably positive effect on other people in close proximity to him or her. And the reverse is also true. Just think about how you feel in the presence of someone who is appreciative or caring, compared to being close to someone angry or frustrated.

Dr. McCraty notes how, “A lot of people feel powerless. There are so many things to fear in the world: climate change, poverty, war, terrorism, *etc.* So where do you start as an individual, when the size of the problems seems so daunting? It is important to know that you can have a demonstrably positive effect on the world. We can change the world, starting with ourselves.”

(Adapted from *Ode Magazine*, June 2005)

Hewlett-Packard ヒューレットパッカード社(大手パソコンメーカー)

electrocardiogram 心電図

proximity 近いこと

daunting 気力をくじくような

問 1. Explain in English what the underlined part (1) means.

問 2. Answer the following questions in English.

- (1) What are two examples the article mentions of how emotions can affect the heart?
- (2) According to researchers at the Institute of Heart Studies, what are two ways positive emotions cause physical changes in your body?
- (3) What have the studies at the Institute found about how we can influence those around us?

問 3. the Institute が開発したエクササイズの目的とその結果について、解答欄 3 行におさまる程度の日本語で説明しなさい。

**B**

次の英文を読み、後に続く問いに答えなさい。

In most actual situations in American speech, commands are disguised as questions. Commands as questions maintain the fiction that the one commanded has the right to refuse even when he or she does not. Consider:

- (1) Would you mind closing the door?

Even though it is uttered as a *yes-no* question, merely to answer “no” without the accompanying action or “yes” without an accompanying excuse would be either strange or a joke. In the movie, *The Return of the Pink Panther*, the late Peter Sellers asks a passerby if he knows where the Palace Hotel is. The passerby responds, “Yes,” but keeps on going. The joke is that “Do you know where X is?” is not really a *yes-no* question, but a polite command meaning “Tell me where X is.”

Direct commanding is allowed and usual in certain circumstances. For instance, parents normally command young children directly, as in:

- (2) Pick those toys up right away.

Intimates such as spouses or roommates often casually command each other about trivial matters, such as:

- (3) Pick some bread up on the way home.

Often these are softened by *please*, *will ya*, *honey*, or the like.

Commands are contextually bound. They are interpretable as commands only if the participants are actually in a commanding situation. Consider:

- (4) It’s cold in here.

This can be interpreted as a command only in a specific commanding context. The speaker must somehow have the right to ask another to close a window if that is the cause of the cold, or to ask another to lend his or her coat. In this situation, the fact that one person is closer to an open window may be

sufficient reason for him or her to be responsible for closing it. The duty or obligation to carry out a command need not proceed only from status but may proceed from the physical circumstances in which the command has been uttered. That is why in the right circumstances ordinary statements or questions may be construed as commands, as in:

(5) Tom: Any more coffee?

Ann: I'll make some right away.

Tom: No, I wanted to know if I had to buy some.

In the above example, it was possible for Ann to make some more coffee, and she must have been responsible for making it at least part of the time. Hence, Tom's question was misinterpreted as a command to make some. The same possibility of misinterpretation can occur in questions like:

(6) Can you swim?

Said by a poolside, it may be interpreted as a command, "Jump in!" but away from a body of water, it will be heard merely as a request for information.

Although questions are often used as polite substitutes for commands, the question-command can sometimes be especially imperious. Using the question-command requires people to be obeyed.

(7) Would you mind being quiet?

(8) If you would wait, please. . . .

The examples in (7) and (8) carry special force because of the high formality signaled by "Would you mind. . . ?" and "If you would. . . , please. . . ."

(Adapted from *Language: The Social Mirror* by Elaine Chaika)

spouses 配偶者

construe 理解する

imperious 威圧的な

- 問 1. Why would answering (1) by simply saying “Yes” be interpreted as a joke?
- 問 2. According to the article, how can we make the sentence in (3) milder? Give three alternative sentences.
- 問 3. As to the sentence in (4), there are two possible interpretations. Give two sentences that reflect the interpretations.
- 問 4. Explain in Japanese the miscommunication observed in (5).
- 問 5. If a person said the sentence in (6) to another person by a poolside, how does the article suggest the other person might react?

**C** 次の1～10について、それぞれ3つの文の( )にあてはまる共通の英単語を答えなさい。(先頭のアルファベットは与えてあるが、完全な綴りを小文字にして書きなさい。)

1. In (s     ), he fell in love with her at first sight.  
He ran (s     ) of money in a week.  
He gave a (s     ) explanation of his idea at the meeting.
2. I don't know (m     ) about art.  
I know very little about chemistry, (m     ) less physics.  
He is not (m     ) of a baseball player.
3. I have (g     ) up the effort to make money.  
(G     ) the mistakes we've made, we ought to apologize.  
Please write down your (g     ) name here.
4. He had to (d     ) the offer due to his sickness.  
There wasn't such a big (d     ) in his popularity.  
Birth rates in this country have been on the (d     ) in recent times.
5. It will take some time to get the (f     ) of the place.  
Do you (f     ) like a cup of tea?  
I tried to (f     ) for my wallet in my inside pocket.
6. The situation is now (u     ) control.  
You can find the book (u     ) "Modern American Literature."  
I am now (u     ) a lot of stress.

7. The boy fell down and hurt (h      ).  
He couldn't bring (h      ) to leave his family, so he decided not to apply for the job.  
I heard the news from John (h      ).
8. What could (l      ) you to do such a foolish thing?  
All his efforts will surely (l      ) to success.  
Our team took a 4-1 (l      ) by the fourth inning.
9. There was no (p      ) in staying any longer.  
Don't beat around the bush. Please get to the (p      ).  
I should (p      ) out that these estimates cover just the hospital bill.
10. We should change the game time. Some members can't come and, (b      ), it is supposed to rain tomorrow.  
(B      ) being a very hard worker, he is also very good with customers.  
There are twenty other students (b      ) me who will be competing in the speech contest.

**D** 次の文が自然な英文になるように、( A )から( J )の中に入れるべき最も適切な語を1～13の中から選び、数字で答えなさい。ただし、同じ語を2度使ってははいけません。

1. creates      2. beyond      3. sustain      4. likely      5. explosive
6. keeps      7. within      8. resemble      9. discovered      10. recycling
11. able      12. emission      13. surface

In his quiet, modest way, Dimitar Sasselov is working to answer one of science's most ( A ) questions: Is there other life in the universe? Sasselov, a 46-year-old Harvard University astronomer and director of the university's *Origins of Life Initiative*, is looking for life-sustainable extrasolar planets — planets that are circling suns in other solar systems. Among the 270 extrasolar planets ( B ) so far, there is probably one living world, according to Sasselov.

Sasselov says a planet needs to have two things to ( C ) life. First, it must allow complex biochemistry to develop. For this to occur, the temperature on the planet has to fall ( D ) a certain range. Too far from its star and the ( E ) may be too cold to support the necessary reactions; too close and it may be too hot. The second must-have for life is a ( F ) of gases and minerals from the planet's interior to its exterior — known as the carbon cycle — which ( G ) the atmosphere in balance over long periods so life can emerge and survive.

The alien life we are most ( H ) to find will be microbial, Sasselov explains. In fact, he expects that the first living planet we discover will ( I ) what Earth looked like a billion years ago, when life had not yet evolved ( J ) bacteria, simple algae, and other microorganisms. “But Earth is just one possible pathway for the emergence of viable biomolecules from chemistry,” he says. “Are there multiple pathways? Do all chemical pathways

converge to one or two or three possible ones to produce life?” Sassellov is working with planetary scientists and cosmochemists to answer these questions by analyzing concentrations of molecules in the universe and on the extrasolar planets they suspect may harbor life.

(Adapted from *Discover*, 3 People Who are Pushing the Edge of Science by Jane Bosveld, May 30, 2008)

microbial 微生物

algae 藻類

**E** 次のことについて、150 語程度の英語で答えなさい。

Twenty-four-hour convenience stores are everywhere in Japan. Are they good or bad for Japanese society? Give two reasons to support your opinion.