

# 入 学 試 験 問 題 (1 次)

## 外 国 語

平成 19 年 1 月 29 日 13 時 00 分—14 時 00 分

### 注 意 事 項

- 1 試験開始の合図があるまで、この問題冊子を開いて見てはならない。
- 2 この冊子は、12 ページである。落丁、乱丁、印刷不鮮明の箇所などがあった場合には申し出よ。
- 3 解答には必ず黒鉛筆(またはシャープペンシル)を使用せよ。
- 4 解答用紙の指定欄に受験番号、氏名を忘れずに記入せよ。
- 5 解答は、必ず解答用紙の所定の解答欄に記入せよ。
- 6 解答の記入の仕方については、解答用紙に書いてある注意に従え。
- 7 この冊子の余白は、草稿用に使用してよい。ただし、切り離してはならない。
- 8 解答用紙およびこの問題冊子は、持ち帰ってはならない。

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上の枠内に受験番号を記入せよ。

I 次の英文を読み、1～8の問題に最も適した答えを選べ。

Mechanical pumps have been in use for over 2,000 years to move \*fluids from point “A” to point “B.” There are even records of the Greeks having used water pumps in 200 BC. \*Archimedes developed a type of screw pump for \*irrigation, and pumps were commonly used for raising water from wells. Pumps today work on the same principle as pumps did long ago. And if the pump breaks down, we simply replace the broken part—or even the whole pump. Although pumps have a long history, there is one pump which has been in existence since the beginning of mankind: the human heart.

This wonderful organ is basically a powerful muscle which sends \*oxygen-rich blood through all parts of the body. Blood contains oxygen and nutrients that every cell in the body needs to survive. The heart beats about 100,000 times per day. In that time, it pumps more than 1,136 liters of blood throughout the entire body. The heart is a pump in constant use.

When the valves of a mechanical pump become \*clogged or break down, they are repaired or replaced. Similarly, when heart valves \*deteriorate, they too are replaced. But the first heart valve operation did not take place until the 1950s, when the heart-lung machine was developed. The first heart transplant or pump \_\_\_\_\_ did not take place until 1967. Unlike mechanical pump repair, heart repair is a recent development.

It is unusual for a person to have a \*superstitious view of a mechanical pump, such as a fuel pump in a car or an oil pump in the Saudi Arabian desert. On the other hand, some people do have unscientific views of the human body—especially the heart. It is still sometimes thought of as the spiritual, emotional and moral \_\_\_\_\_ of an individual. For this reason, the first heart transplant caused an outcry, as many societies considered the \*implantation of someone else’s heart to be “unnatural,” although nowadays thousands of heart transplants take place every day. Even a mechanical heart was successfully transplanted

into a human being in 2001. The most recent development is the transplantation of an actual beating human heart.

Some people think that the human body is no better than a machine, eventually \*wearing out. However, it may be possible in the future to \*regenerate heart \*tissue, and grow a new heart, thus replacing damaged body parts by using an individual's own natural cell structures. The same claim cannot be made for machines.

\*fluid 液体 \*Archimedes アルキメデス \*irrigation 灌溉

\*oxygen-rich 酸素を豊富に含む \*clog 詰まる

\*deteriorate 悪化する \*superstitious 迷信的な \*implantation 移植

\*wear out 使い古す \*regenerate 再生する \*tissue 組織

1—3 の問題については、本文の論旨に最も適したものを選べ。

1. According to the article, a major difference between a mechanical pump and the heart is that \_\_\_\_\_.
  - A. a mechanical pump breaks down more frequently than the heart
  - B. a mechanical pump was used for irrigation
  - C. the function of heart valves is more complex
  - D. the heart has a longer history than the mechanical pump
  
2. When the first heart transplant took place, many people \_\_\_\_\_.
  - A. were superstitious
  - B. were extremely frightened
  - C. did not consider the transplant scientifically
  - D. thought that their feelings were unnatural

3. The writer suggests that \_\_\_\_\_.  
A. the heart is just a machine  
B. some people may be superstitious about the heart  
C. the cellular structure of mechanical and organic pumps is similar  
D. mechanical pump regeneration will occur in the future

4. 最初のパラグラフで筆者が示唆していることを一つ選べ。  
A. Mechanical pumps and the heart have a similar history.  
B. Both mechanical pumps and the heart stimulate the movement of liquids from point A to point B.  
C. It has always been possible to repair a damaged pump and a damaged heart by providing replacement parts.  
D. The function of a mechanical pump and the heart is quite different.

5. 本文を読んで、内容的に正しいものを以下から一つ選べ。  
A. Mechanical hearts will replace human to human heart transplantations.  
B. All people will lose their unscientific view of what the heart really is.  
C. Researchers will not be able to grow a new heart from special tissue and use it to replace a damaged heart.  
D. It will not be possible to regenerate a damaged machine.

6. 空所(1)に入る最も適切な語を選べ。  
A. alternative  
B. substitute  
C. development  
D. replacement

7. 空所(2)に入る最も適切な語を選べ。

- A. connection
- B. center
- C. bond
- D. power

8. 本文の結論の解釈として、最も適切な文を選べ。

- A. The author thinks that the heart will be thought of in mechanical terms rather than superstitious terms.
- B. The author predicts that the future of heart repair may change from replacement to regeneration.
- C. The author is basically presenting a summary of his opinions.
- D. The author recommends that we think not of how to repair damaged body parts but of how much longer we will be able to live due to self healing techniques.

II 次の英文を読み、9～16の問題に最も適した答えを選べ。

Some of the world's most famous persons have suffered from a similar disability: Albert Einstein, the physicist, Thomas Edison, the inventor, Auguste Rodin, the artist whose works are in museums around the world. What disabled these three highly intelligent men? Strange as it may sound, they all suffered from learning disabilities, the name given to a number of related learning disorders.

Persons with learning disabilities are of normal or higher intelligence. Yet they have great difficulty learning to read, write or use numbers.

Almost always, there is a problem with one of the mental processes needed to understand or use written signs or spoken languages. A learning-disabled child sees and hears perfectly well. Yet he or she is unable to recognize differences in sizes, shapes or sounds that are easy for others to recognize.

Learning disabilities are very common. They affect perhaps 10 percent of all children. Four times as many boys as girls have learning disabilities.

Since about 1970, new research has helped brain scientists understand these problems       <sup>(1)</sup>. Scientists now know there are many different kinds of learning disabilities and that they have many different causes. There is no longer any question that all learning disabilities result from differences in the way the brain is organized.

You cannot look at a child and tell if he or she has a learning disability. There is no outward sign of the disorder. So some researchers began looking at the brain itself to learn what might be wrong.

In one study, researchers examined the brain of a learning-disabled person who had died in an accident. They found two unusual things. One involved cells in the left side of the brain, which control language. These cells normally are white. In the learning-disabled person, however, these cells were gray. The researchers also found that many of the nerve cells were not in a line the way

they should have been. The nerve cells were mixed together.

This study was carried out under the guidance of Norman Geschwind, an early expert on learning disabilities. Dr. Geschwind proposed that learning disabilities resulted mainly from problems in the left side of the brain. He believed that side of the brain failed to develop normally. Probably, he said, nerve cells there did not connect as they should. So the brain was like an electrical device in which the wires were crossed.

(2)

Other researchers did not examine brain tissue. Instead, they measured the brain's electrical activity and made a map of the electrical signals.

Frank Duffy experimented with this technique at Children's Hospital Medical Center in Boston. Dr. Duffy found large differences in the brain activity of normal children and those with reading problems. The differences appeared throughout the brain. Dr. Duffy said his research is evidence that reading disabilities involve damage to a wide area of the brain, not just the left side.

Researchers are continuing to investigate many possible influences on brain development and organization. They know that the two sides of the brain control

\_\_\_\_\_ sides of the body. Usually, the left side of the brain is stronger than the right side. This is the reason that most people are right-handed. They use their right hand for most actions. Researchers long wondered why left-handed boys develop learning disabilities more than right-handed boys. They also wondered why so many more boys than girls develop learning disabilities.

9—13の問題については、本文の論旨に最も適したものを選べ。

9. Some of the world's most famous persons have suffered from \_\_\_\_\_.

- A. reading and reasoning disabilities
- B. not being able to use the language properly
- C. not being very intelligent
- D. learning problems

10. Since the 1970's, new research has helped us understand that \_\_\_\_\_.

- A. brain problems have many causes
- B. learning disabilities result from brain damage
- C. learning disabilities result from differences in brain organization
- D. learning disabilities usually cause brain disorganization

11. Researchers found \_\_\_\_\_.

- A. that a learning-disabled person died in an accident
- B. that a person with language problems had gray brain cells in the left side of the brain
- C. two very different things about the causes of brain damage
- D. that nerve cells were not in line in the case of a brain-damaged person

12. Dr. Norman Geschwind found that \_\_\_\_\_.

- A. nerve cells did not connect normally for a brain-damaged person
- B. learning disabilities result from the way nerve cells connect
- C. the way the left and right brain connect causes brain damage
- D. that learning disabilities result from the connection of the brain

13. After Dr. Frank Duffy's experiment, researchers found \_\_\_\_\_.

- A. that more left-handed male children tend to develop learning disabilities
- B. why the left side of the brain is stronger than the right side
- C. that brain damage causes reading disabilities
- D. why left-handed girls have fewer learning disabilities

14. 空所(1)に入れるのに最も適する語を選べ。

- A. wider
- B. wholly
- C. seriously
- D. better

15. (2) device に文脈上最も近い意味の単語を選べ。

- A. tool
- B. machine
- C. means
- D. set

16. 空所(3)に入れるのに最も適する語を選べ。

- A. opposite
- B. right
- C. left
- D. both

### III 次の英文を読み、17～25の問題に最も適した答えを選べ。

The term “multicultural” can be used to talk about any society where people from different cultures or ethnic groups live together. In Britain, just less than six percent of the total population of sixty million belong to an ethnic minority. About twenty-seven percent, or eight hundred and seventy-five thousand people, are of Indian descent, and they form the largest ethnic minority group. The other major groups are, in descending order of size, Pakistani, Black-Caribbean, Black-African, Bangladeshi, and Chinese.

People have been immigrating to Britain for several hundreds of years although it was only after the Second World War that immigrants started to arrive in large numbers. London can rightly be described as a “melting pot”—it is one of the most \_\_\_\_\_ cities on earth. However, in the rest of the country, and outside the major cities, ethnic minorities have a much smaller presence.

Any discussion of multiculturalism inevitably involves confronting the difficult issue of \*racism and discrimination. According to one Singaporean, who has lived there since 1983, Britain is one of the more sensitive countries of the world when it comes to understanding the needs of ethnic minorities. And yet a newspaper article recently reported that one in three Britons admitted to being racist, with 8% saying they were “very racist”. Similarly, a number of \*high profile racist attacks, some of which resulted in deaths, have caused a lot of \*anguish in the past couple of years.

However, while violent and aggressive racism is thankfully rare, the figures above do suggest that discrimination and prejudice against ethnic minorities are fairly widespread. There are many examples that illustrate this. If we look at the police force in England and Wales, which is often accused of discrimination, we can see that only 2% of police officers are African or Asian, even though they make up 5.6% of the general population. In general, ethnic minorities are under-represented in most of the professions, such as law, medicine, education,

and so on. In the area of sport, where there are many successful black athletes, it was recently reported that Asian cricketers were being discriminated against. Some white teams did not want to play against Asian teams, who are believed to be too aggressive and competitive! Another stereotype no doubt, just like the stereotype of the Chinese <sup>(3)</sup> \*takeaway and Indian \*corner shop.

According to some people, the language that is used to talk about ethnic minorities is part of the problem, too. They say that whenever topics such as \*immigration are discussed in the media, you will often find words such as “issue”, “debate”, “problem”, “solution”, “question”, “concern”, and so on. These words are part of the problem because they show how immigration and ethnicity are perceived by British society: as an “issue” or “problem” that needs a “solution”.

However, to conclude on a positive note, let us hope that Britain in the twenty-first century becomes a truly \_\_\_\_\_ society: one where people of any background can feel free to express their ethnic and cultural identities without fear of discrimination or prejudice.

\*racism 人種差別      \*high profile 注目を集める      \*anguish 苦悩

\*takeaway 持ち帰り用の料理を売る店      \*corner shop 街角の雑貨店

\*immigration 移民

17—20 の問題については、本文の論旨に最も適したものを選べ。

17. Britain is a multicultural society where \_\_\_\_\_.

- A. many people from different countries live together peacefully
- B. a small percentage of many different races live with a white majority
- C. a majority of people discriminate against minorities
- D. people who have different racial backgrounds coexist in big cities

18. In Britain, \_\_\_\_\_ are experienced by many people.

- A. hate crimes and violent attacks on racial minorities
- B. understanding and equality for ethnic minorities
- C. feelings of discrimination and prejudice against non-white people
- D. sufficient understanding and lack of discrimination

19. Ethnic minorities \_\_\_\_\_ in general.

- A. are often discriminated against in sports
- B. have less chance of becoming professionals than the white majority
- C. are not allowed to get well-paid jobs
- D. are feared for being aggressive and competitive

20. The language used for immigration matters suggests that \_\_\_\_\_.

- A. the white majority perceives ethnic minorities as a problem
- B. people want to solve the discrimination problem by living harmoniously
- C. problems concerning discrimination and prejudice cannot be solved easily
- D. ethnic minorities cause a lot of troubles that need to be solved by themselves

21. 空所(1)に入る最も適切な語を選べ。

- A. cultural
- B. popular
- C. cosmopolitan
- D. multilingual

22. 本文中にあるA—Dの単語の最も強いアクセントのある母音が、下線語(2)  
multiculturalismの最も強いアクセントのある母音と同じものを選べ。

- A. thankfully
- B. result
- C. article
- D. ethnicity

23. 下線語(3)stereotypeと最も意味の近い表現を一つ選べ。

- A. fixed image
- B. one interpretation
- C. wrong impression
- D. opposing view

24. 空所(4)に入る最も適切な語を選べ。

- A. peaceful
- B. respectable
- C. civilized
- D. multicultural

25. 本文の表題として最も適切なものを選べ。

- A. Multiculturalism: Ethnic identity and discrimination in Britain
- B. How to solve the immigration and racial problems in Britain
- C. Racial problems and the practical solutions in Britain
- D. British ways of treating racial matters and immigration