

SECTION C: READING

A: For questions 76 to 85, choose the best ending for each short passage below. Write A, B C or D on the answer sheet.

76. What is the world's largest living creature? It may be a fungus that scientists have discovered in the state of Wisconsin. This fungus is huge--it spreads over about 37 acres and is still growing. This may seem like a science fiction nightmare. However, in fact, the fungus lives underground in the woods and does not disturb its environment. It also grows very slowly, having taken 1,500 years to reach its present size. The scientists used to think that this fungus was made up of many different fungi. Now, with DNA testing, they have definite proof that it is really.....

- a. just one individual fungus.
- b. separate fungi living close together.
- c. dead material.
- d. a science fiction nightmare.

77. After Columbus traveled to the Americas, the Europeans began to import many kinds of products from the New World. Some of the products are well known, such as coffee, cocoa, tobacco, tomatoes, corn, potatoes, pumpkins, beans, and strawberries. But some of the products are little known today. For two centuries, one of the most important New World exports was the cochineal. This small red insect was used for making red cloth. It is still used for this purpose today and some insects are still exported from the Americas. However, with the invention of chemical colorants, the demand for the cochineal has.....

- a. regained its commercial importance.
- b. become extinct.
- C. lost its commercial importance.
- d. lost its brilliant red coloring.

78. At Ashkelon, in Israel, archaeologists have found a very large dog cemetery. The cemetery dates from the fifth century B.C., when that area was part of the Persian Empire. So far, about 1,000 dog graves have been found in the cemetery. Archaeologists are not certain about the reason for so many graves. However, they believe that dogs must have been very important for the people there. In fact, all of the dogs died of natural causes and were buried very carefully. Perhaps, these people.....

- a. gave dogs special powers in their religion.
- b. ate dog meat.
- c. wanted to get rid of all their dogs.
- d. didn't like cats.

79. Robots are entering into all kinds of activities. They've even taken up hunting in some places. Most states of the United States have very strict laws to limit the hunting of deer (a large mammal). Some hunters, however, do not obey the laws and try to kill too many deer. So, the forest services have developed a robot that looks and acts just like a deer. This robot-deer is left in the woods near a road where people will see it. It looks and acts just like a real deer. But if a hunter tries to shoot it, the police come out from the woods and check his hunting license. The hunter may have wanted to get a deer, but, instead the.....

- a. police have gotten the deer.
- b. deer has gotten the hunter,
- c. hunter has gotten a large mammal.
- d. deer has gotten the police.

80. In many parts of England, hedges are an important part of the countryside. (A hedge is a kind of fence made of bushes or trees.) An English botanist, Max Hooper, studied the English hedges and found an interesting fact. The older the hedge, the more species of bushes and trees it contained. His conclusions became known as "Hooper's Rule." According to this rule, a hedge usually starts with one species and gains a species with each century. Using this rule, people have studied hedges in England and discovered that many of them are very old. Quite a few of them have more than ten species. This means that they.....

- a. may be 1,000 years old
- b. may be only 100 years old.
- c. will be made of bushes and trees.
- d. must be English.

81. As more women have careers and important jobs, a new kind of family problem is becoming more common. What happens when a woman is offered a better job in another city? If she accepts the offer, that means her husband has to leave his job, too. He may have trouble finding another job in the same city. Or, the job he finds may not be as good as his old one. In the past, women often had to face this problem when their husbands found new jobs. But now it is more and more common for men. Many men do not accept the situation easily. A man often feels uncomfortable.....

- a. getting a job that is better than his wife's job.
- b. looking for the same kind of job as his wife.
- c. following his wife to a new city and looking for a job.
- d. looking for a job for his wife.

82. Many people are afraid of going to the dentist. There are a number of reasons for this fear. One reason is that the patient cannot see what the dentist is doing. Another reason is that the patient (who is lying back) may feel very helpless. Social factors may also increase a person's fear. People may be influenced by the general belief that dentists are scary. And finally, many people.....

- a. like seeing the dentist's shiny instruments.
- b. do not like to brush their teeth very often.
- c. are afraid of going to the doctor as well.
- d. do not like the idea of instruments in their mouths,

83. Immigration in the United States has been increasing rapidly. Each year about 600,000 new legal immigrants settle in this country. If all the illegal immigrants were counted, that number would be even higher. Today's immigrants are different from the immigrants of the early 20th century, who were mostly white and European. The more recent immigrants are mostly black, Hispanic, or Asian. However, they do have one thing in common: a desire to work and do well in their new homeland. For this reason, many people feel that the government should not shut its doors to immigrants. The immigrants have helped the country in the past, they say. Now, the United States.....

- a. needs better laws to keep out immigrants.
- b. could benefit from them again.
- c. does not need people from other countries.
- d. could benefit only from the younger immigrants.

84. Texas is famous for its cattle farms, but another kind of farm is growing much faster: ostrich farms. Ten years ago, ostrich farms were rare, but there are now over 2,000 in the United States, many of them in Texas. It's easy to see why so many farmers are interested in ostriches these days. A pair of young adult ostriches are worth around \$40,000. An ostrich egg may be worth up to \$1,500. Since a female ostrich may lay up to 80 eggs a year,

- a. farmers may not be able to make much profit.
- b. ostrich farming is not a very profitable business.
- c. farmers may prefer to raise cattle.

d. farmers can make a lot of profit quickly.

85. The use of electric automobiles in the future will help reduce air pollution. This was the conclusion of a recent study by experts of a large area in the northeastern United States. The area is highly urban and includes the cities of New York and Boston. At present, the air quality is often very poor. However, the increased use of electric cars could improve the situation. By the year 2015, there will be about 3.3 million electric cars on the road in the Northeast. According to the study, this will mean.....

- a. 20-50% less pollution.
- b. 20-50% more pollution.
- c. a gradual increase in the number of cars on the road.
- d. a gradual reduction of air quality in the northeast.

B: For questions 86-93, read the passage below. The following reading passage has seven sections, A-G. Choose the correct heading for each section from the list of headings below. Write the correct number, i-x, on lines 86-93 on your answer sheet. There are more headings than sections, so you will not use them all.

Electric Dreams

A. The days of the internal-combustion are numbered, and the fuel cell represents the future of automotive transport, says PETER BREWER. A. Some of the world's greatest inventions have been discovered by accident. One such accident led to the discovery of the fuel cell and another led to its commercialisation. And in around 30 years, when most of the energy analysts have predicted the oil wells will run dry, motorists will be thankful for both these strange twists of fate. Why? Simply because without the fuel cell to replace the combustion engine, private motoring as we all know it would be restricted to only those who could afford the high price.

B. The exact date of the discovery of the fuel cell is not known, but historians agree it most likely occurred around 1938 in the laboratories of British physicist Sir William Grove, who one day disconnected a simple electrolytic cell (in which hydrogen and oxygen are produced when water contacts an electric current running through a platinum wire) and reversed the flow of current. As author records in his book *Powering the Future*, Grove realized that just as he could use electricity to split water into hydrogen and oxygen it should be possible to generate electricity by combining these two gases.

C. The principle behind the fuel cell is simple. Hydrogen and oxygen, two of the most common elements in the world, are a very explosive combination. But separate them with a sophisticated platinum coated barrier and an electro chemical reaction takes place, where positively charged hydrogen ions react with oxygen and leave the hydrogen electrons behind. It is this reaction, the excess electrons on one side of the barrier and the deficit of electrons on the other that creates electrical energy.

D. The early development of the fuel cell was fraught with problems and high cost. But by 1954 US giant General Electric had produced a prototype that proved sufficiently effective to interest NASA. The Gemini space programme proved the viability of the fuel cell to provide electrical power. The spacecraft used six stacks of cells with three cells in each stack. The electrical power output from each stack was quite modest – just one kilowatt and as a byproduct, produced half a litre of water for each kilowatt hour of operation. But the Gemini Cells were very unstable and required constant monitoring.

E. At this time if anyone had suggested to Canadian Scientist Geoffrey Ballard that he would become a world leader in fuel cell technology, he would have laughed. Ballard's scientific background was actually geophysics, but during the oil-crisis of 1973, the US government asked the Canadian to explore alternative forms of energy. Ballard threw himself into the project enthusiastically but soon became disillusioned by the politics of the programme. Energy systems take a long time to develop, Ballard said. The short-term vision of politicians, who voted to fund such projects in the desire for quick results to bolster their re-election chances, were frustrating for the scientists. However, since the US government lacked the vision for the job, he decided to tackle it himself.

F. The big breakthrough on Ballard's fuel cell came by accident in the search for cheaper materials. Up until late 1986, Ballard's team had worked with only one type of fuel cell membrane manufactured by DuPont, but Dow Chemical had also developed a similar membrane, which had not been released for sale. Ballard's team tracked down an experimental sample of the Dow material, put it into a fuel cell and set up a standard test. Within a few minutes the fuel cell was generating so much electricity on the test bench that it had melted through the power-output cable.

G. Ballard immediately knew he had a saleable product. The problem was: Should he aim his fuel cell at small markets like military field generators, wheelchairs and golf carts, or try to sell it as a full blown alternative to the combustion engine? "It was so needed and the world was ready for it," Ballard said. "Los Angeles is dying; Vancouver is going to be eaten alive by its own pollution very shortly. It seemed like a time to go for broke." Ballard Power Systems first built a small bus to demonstrate the technology, and then an even bigger bus.

H. As a result a number of multinational motor manufacturers, such as General Motors, Mitsubishi and Daimler-Benz all tested Ballard's cells. Finally, Daimler formed an alliance with Ballard that has yielded some impressive prototypes, including a fully driveable fuel cellpowered A-class Mercedes-Benz compact car, known as Necar 4. Daimler Chrysler, as the merged Daimler-Benz and Chrysler Corporation is now known, says the fuel cell represents the future of automotive transport. "The significance of this technological advancement (the fuel cell) is comparable to the impact the microchip had on computer technology when it replaced the transistor," said Dr Ferdinand Panik, the head of Daimler Chrysler's fuel cell development team.

List of headings

- i. A conflict of interests
- ii. Science is sometimes a question of luck
- iii. Using the fuel cell in different ways
- iv. How does it work?
- v. Deciding how to exploit the new product
- vi. Using the fuel cell to be the first in the space race
- vii. A key stage in the development of fuel cell
- viii. A first step on the road to a new source of energy
- ix. Applying the new technology on a global scale
- x. The first fuel cell is tested

C: For questions 94-100, read the passage below. Next, choose the correct answer A, B, C or D.

Archaeological records—paintings, drawings, and carvings of humans engaged in activities involving the use of hands—indicate that humans have been predominantly right-handed for more than 5,000 years. In ancient Egyptian artwork, for examples, the right hand is depicted as the dominant one in about 90 percent of the example. Fracture or wear patterns on tools also indicate that a majority of ancient people were right-handed. Cro-Magnon cave paintings some 27,000 years old commonly show outlines of human hands made by placing one hand against the cave wall and applying paint with the other. Children today make similar outlines of their hands with crayons on paper. With few exceptions, left hands of Cro-Magnons are displayed on cave walls, indicating that the paintings were usually done by right-handers.

Anthropological evidence pushes the record of handedness in early human ancestors back to at least 1.4 million years ago. One important line of evidence comes from flaking patterns of stone cores used in toolmaking: implements flaked with a clockwise motion (indicating a right-handed toolmaker) can be distinguished from those flaked with a counter-clockwise rotation (indicating a left-handed toolmaker).

Even scratches found on fossil human teeth offer clues. Ancient humans are thought to have cut meat into strips by holding it between their teeth and slicing it with stone knives, as do the present-day Inuit. Occasionally the knives slip and leave scratches on the users' teeth. Scratches made with a left-to-right stroke direction (by right-handers) are more common than scratches in the opposite direction (made by left-handers).

Still other evidence comes from cranial morphology: scientists think that physical differences between the right and left sides of the interior of the skull indicate subtle physical differences between the two sides of the brain. The variation between the hemispheres corresponds to which side of the body is used to perform specific activities. Such studies, as well as studies of tool use, indicate that right-or left-sided dominance is not exclusive to modern *Homo sapiens*. Populations of Neanderthals, such as *Homo erectus* and *Homo habilis*, seem to have been predominantly right-handed, as we are.

94. What is the main idea of the passage?

- (A) Human ancestors became predominantly right-handed when they began to use tools.
- (B) It is difficult to interpret the significance of anthropological evidence concerning tool use.
- (C) Humans and their ancestors have been predominantly right-handed for over a million years.
- (D) Human ancestors were more skilled as using both hands than modern humans.

95. The word "other" in line 8

- (A) outline
- (B) hand
- (C) wall
- (D) paint

96. What does the author say about Cro-Magnon paintings of hands?

- (A) Some are not very old.
- (B) It is unusual to see such paintings.
- (C) Many were made by children.
- (D) The artists were mostly right-handed.

97. The word "implements" in line 13 is closest in meaning to

- (A) tools
- (B) designs
- (C) examples
- (D) pieces

98. When compared with implements "flaked with a counter-clockwise rotation " (line 15), it can be inferred that "implements flaked with a clockwise motion" (lines 13-14) are

- (A) more common
- (B) larger
- (C) more sophisticated
- (D) older

99. The word "clues" in line 16 is closest in meaning to

- (A) solutions
- (B) details
- (C) damage
- (D) information

100. The fact that the Inuit cut meat by holding it between their teeth is significant because

- (A) the relationship between handedness and scratches on fossil human teeth can be verified
- (B) it emphasizes the differences between contemporary humans and their ancestors
- (C) the scratch patterns produced by modern knives
- (D) it demonstrates that ancient humans were not skilled at using tools