IELTS READING (ACADEMIC)

ACTUAL TESTS WITH ANSWERS

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Preface

As far as you know, IELTS candidates will have only 60 minutes for this IELTS Reading part with a total of 40 questions. Therefore, it is absolutely necessary that you invest time in practicing the real IELTS reading tests for this module.

Besides Cambridge IELTS Practice Tests series published by Oxford University Press, IELTS Reading Recent Actual Tests with Answers aims to develop both test-taking skills and language proficiency to help you achieve a high IELTS Reading score. It contains IELTS Reading Tests in the chronological order starting from the recent tests and an Answer Key. Each test contains three reading passages which cover a rich variety of topics and give a lot of practice for a wide range of question types used in the IELTS Exam such as multiple-choice questions, short- answer questions, sentence completion, summary completion, classification, matching lists / phrases, matching paragraph headings, identification of information – True/False/Not Given, etc. When studying IELTS with this e-book, you can evaluate at the nearest possibility how difficult the IELTS Reading Section is in the real exam, and what the top most common traps are. Moreover, these tests are extracted from authentic IELTS bank source; therefore, you are in all probability to take these tests in your real examinations.

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IELTS Reading Test 1

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

Growing of the Aging Society

A. American scientists say that the elderly are now healthier, happier and more independent. The results of a study that has taken place over a 14-year period will be released at the end of the month. The research will show that common health disorders suffered by the elderly are affecting fewer people and happening after in life.

B. Over the last 14 years, The National Long-term Health Care Survey has gathered data from more than 20,000 males and females over the age of 65 about their health and lifestyles. The group has analysed the results of data gathered in 1994 on conditions such as arthritis, high blood pressure and poor circulation; these were the most common medical complaints for this age group. The results show that these conditions are troubling a smaller proportion of people each year and decreasing very quickly. Other diseases suffered by the elderly including dementia, emphysema and arteriosclerosis are also affecting fewer people.

C. According to Kenneth Manton, a demographer from Duke University in North Carolina, “the question of what should be considered normal ageing has really changed.” He also mentioned that diseases suffered by many people around the age of 65 in 1982 are now not occurring until people reach the age of 70-75.

D. It is clear that due to medical advances some diseases are not as prominent as they used to be. However, there were also other factors influencing this change. For instance, improvements in childhood nutrition in the first quarter of the twentieth century gave many people a better start in life than was possible before.

E. The data also shows some negative changes in public health. The research suggests that the rise of respiratory conditions such as lung cancer and bronchitis may reflect changing smoking habits and an increase in air pollution. Manton says that as we have been exposed to worse and worse pollution, it is not surprising that some people over the age of 60 are suffering as a result.

F. Manton also found that better-educated people are likely to live longer. For instance, women of 65 with less than eight years of education are expected to live to around 82. Those who studied more could be able to live seven years longer. Whilst some of this can be attributed to better-educated people usually having a higher income, Manton believes it is mainly because they pay closer attention to their health.

G. Also, the survey estimated how independent people of 65 were and found a striking trend. In the 1994 survey, almost 80% of them were able to complete activities such as eating and dressing alone as well as handling difficult tasks, like cooking and managing their financial affairs. This situation indicates an important drop among disabled elderly people in the population. If 14 years ago, the apparent trends in the US had continued, researchers believe that there would be one million disabled elderly people in today's population. Manton shows the trend saved more than $200 billion for the US's government's Medicare system, and it has suggested the elderly American population is less of a financial burden than expected.

H. The growing number of independent elderly people is probably linked to the huge increase in home medical aids. For instance, the research shows the use of raising toilet seat covers and bath

seats has increased by more than fifty per cent. Also, these developments about health benefits are reported by the MacArthur Foundation's research group for successful ageing. It found the elderly who are able to take care of themselves were more likely to stay healthy in their old age.

I. Retaining a certain level of daily physical activity may also help brain function, according to Carl Cotman, a neuroscientist at the University of California at Irvine. He found that rats exercising on a treadmill have higher levels of a brain-derived neurotrophic factor in their brains. He believes the hormone which holds neuron functions may prevent the active human's brain function from declining.

J. Teresa Seeman, a social epidemiologist at the University of Southern California in Los Angeles, was conducting the same research. She found a line between self-esteem and stress in people over 70. The elderly who do challenging activities such as driving have more control of their mind and have a lower level of the stress hormone cortisol in their brains. Chronically high levels of this hormone can cause heart disease.

K. However, an independent life may have negative points. Seeman knew that the elderly people that were living alone were able to retain higher levels of stress hormones even when sleeping. The research indicates that elderly people are happier if they can live an independent life but also acknowledge when they need help.

L. Seeman says, "With many cases of research about ageing, these results help common sense." Also, the situations show that we may be ignoring some of the simple factors. She mentions, "The sort of thing your grandmother always used to talk to you about seems to be exactly right."

Questions 1-6

Instructions to follow

- Reading Passage 1 has twelve paragraphs, A-L.
- Choose the correct heading for paragraphs B-G from the list of headings below.

List of Headings

i. Disorders strike much later in life.

ii. Drawbacks in public health.

iii. Longevity based on high education.

iv. The elderly people of today got better nutrition when they were children.

v. The elderly are becoming more well off.

vi. Most of independent people over 65 complete activities themselves.

vii. Diseases have decreased recently.

1 Paragraph B

2 Paragraph C

3 Paragraph D

4 Paragraph E

5 Paragraph F

6 Paragraph G

Questions 7-13

Instructions to follow

- Do the following statements reflect the claims of the writer in Reading Passage 1?
- TRUE if the statement agrees with the information
- FALSE if the statement contradicts the information
- NOT GIVEN if there is no information on this

7 Smoking habits are a crucial cause in some cancers.

8 The better-educated elderly people tend to live longer.

9 People over 65 can independently manage a variety of tasks.

10 Elderly people have overcome dementia as a result of home medical aids.

11 Continuing physical exercises is likely to assist digestive function.

12 People over 70 who still do challenging things such as driving are able to lower their level of the hormone cortisol which is linked to heart disease.

13 Isolation may cause a higher level of stress hormones.

Section 2

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 Chlysler, as the merged Daimler-Benz and Chlysler 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 Chlysler’s fuel cell development team.

Questions 14-21

Instructions to follow

- There are 8 paragraphs numbered A-H in Reading Passage 2.
- From the list below numbered i- x, choose a suitable heading for the paragraphs.
- There are more headings than paragraphs, so you will not use all the headings.

14 Paragraph A

15 Paragraph B

16 Paragraph C

17 Paragraph D

18 Paragraph E

19 Paragraph F

20 Paragraph G

21 Paragraph H

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

Questions 22-24

Instructions to follow

- Choose the most appropriate letter A B C or D.

22 The fuel cell generates electricity because

A hydrogen and oxygen can be used to create controlled explosions
B of the reaction which occurs when hydrogen and oxygen are separated
C hydrogen and oxygen are both gases
D hydrogen and oxygen both contain electrons

23 The Gemini space programme demonstrated that

A The fuel cell was too difficult to use in space programmes
B The fuel cell can only work with pure oxygen
C Generating a substantial amount of electricity requires many fuel cells
D The fuel cell could be used successfully

24 The US government asked Ballard to carry out fuel cell research because

A He was an expert in his field
B supplies of oil were running out
C They wanted to find new sources of energy
D He offered to work completely independently.

Questions 25-27

Instructions to follow

- Complete the sentences below by taking words from the passage. Use NO MORE THAN THREE WORDS.

25 The key step in the development of fuel cell occurred completely _____.

26 Ballard decided that the fuel cell could be used to reduce _____in large cities.

27 In an attempt to produce a more ecological car, Ballard _____with a major automobile corporation.

Section 3

History of telegraph in communication

Jean-Antoine Nollet was a French clergyman and physicist. In 1746 he gathered about two hundred monks into a circle about a mile (1.6 km) in circumference, with pieces of iron wire connecting them. He then discharged a battery of Leyden jars through the human chain and observed that each man reacted at substantially the same time to the electric shock, showing that the speed of electricity's propagation was very high. Given a more humane detection system, this could be a way of signaling over long distances. In 1748, Nollet invented one of the first electrometers, the electroscope, which detected the presence of an electric charge by using electrostatic attraction and repulsion.

After the introduction of the European semaphore lines in 1792, the world's desire to further its ability to communicate from a distance only grew. People wanted a way to send and receive news from remote locations so that they could better understand what was happening in the world around them—not just what was going on in their immediate town or city. This type of communication not only appealed to the media industry, but also to private individuals and companies who wished to stay in touch with contacts. In 1840 Charles Wheatstone from Britain, with William Cooke, obtained a new patent for a telegraphic arrangement.

The new apparatus required only a single pair of wires, but the telegraph was still too costly for general purposes. In 1 845, however, Cooke and Wheatstone succeeded in producing the single needle apparatus, which they patented, and from that time the electric telegraph became a practical instrument, soon adopted on all the railway lines of the country.

It was the European optical telegraph, or semaphore, that was the predecessor of the electrical recording telegraph that changed the history of communication forever. Building on the success

of the optical telegraph, Samuel F. B. Morse completed a working version of the electrical recording telegraph, which only required a single wire to send code of dots and dashes. At first, it was imagined that only a few highly skilled encoders would be able to use it but it soon became clear that many people could become proficient in Morse code. A system of lines strung on telegraph poles began to spread in Europe and America.

In the 1840s and 1850s several individuals proposed or advocated construction of a telegraph cable across the Atlantic Ocean, including Edward Thornton and Alonzo Jackman. At that time there was no material available for cable insulation and the first breakthrough came with the discovery of a rubber-like latex called gutta-percha. Introduced to Britain in 1843, gutta-percha is the gum of a tree native to the Malay Peninsula and Malaysia.

After the failure of their first cable in 1850, the British brothers John and Jacob Brett laid a successful submarine cable from Dover to Calais in 1851. This used two layers of gutta-percha insulation and an armoured outer layer. With thin wire and thick insulation, it floated and had to be weighed down with lead pipe.

In the case of first submarine-cable telegraphy, there was the limitation of knowledge of how its electrical properties were affected by water. The voltage which may be impressed on the cable was limited to a definite value. Moreover, for certain reasons, the cable had an impedance associated with it at the sending end which could make the voltage on the cable differ from the voltage applied to the sending-end apparatus. In fact, the cable was too big for a single boat, so two had to start in the middle of the Atlantic, join their cables and sail in opposite directions.

Amazingly, the first official telegram to pass between two continents was a letter of congratulation from Queen Victoria of the United Kingdom to the President of the United States, James Buchanan, on August 16, 1 858. However, signal quality declined rapidly, slowing

transmission to an almost unusable speed and the cable was destroyed the following month.

To complete the link between England and Australia, John Pender formed the British-Australian Telegraph Company. The first stage was to lay a 557nm cable from Singapore to Batavia on the island of Java in 1870. It seemed likely that it would come ashore at the northern port of Darwin from where it might connect around the coast to Queensland and New South Wales. It was an undertaking more ambitious than spanning the ocean. Flocks of sheep had to be driven with the 400 workers to provide food. They needed horses and bullock carts and, for the parched interior, camels. In the north, tropical rains left the teams flooded.

In the centre, it seemed that they would die of thirst. One critical section in the red heart of Australia involved finding a route through the McDonnell mountain range and then finding water on the other side. The water was not only essential for the construction teams. There had to be telegraph repeater stations every few hundred miles to boost the signal and the staff obviously had to have a supply of water.

On August 22, 1872, the Northern and Southern sections of the Overland Telegraph Line were connected, uniting the Australian continent and within a few months, Australia was at last in direct contact with England via the submarine cable, too. This allowed the Australian Government to receive news from around the world almost instantaneously for the first time. It could cost several pounds to send a message and it might take several hours for it to reach its destination on the other side of the globe, but the world would never be the same again. The telegraph was the first form of communication over a great distance and was a landmark in human history.

Questions 28-32

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 3.
- TRUE if the statement agrees with the information
- FALSE if the statement contradicts the information
- NOT GIVEN if there is no information on this

28 People increasingly hoped to explore ways of long-distance communication in the late eighteenth century.

29 Using Morse Code to send message needed special personnel to first simplify the message,

30 Morse was a famous inventor before he invented the code.

31 Water was significant to early telegraph repeater stations on the continent.

32 The Australian Government offered funds for the first overland line across the continent.

Questions 33-40

Instructions to follow

- Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

33 Why did Charles Wheatstone's telegraph system fail to come into common use in the beginning?

34 What material was used for insulating cable across the sea?

35 What was used by British pioneers to increase the weight of the cable in the sea?

36 What would occur in the submarine cable when the voltage was applied?

37 Who did the Queen first send a message to, across the Atlantic ocean?

38 What animals were used to carry the cable through the desert?

39 What weather condition delayed construction in north Australia?

40 How long did it take to send a telegraph message from Australia to England in 1872?

IELTS Reading Test 2

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

The Green Revolution in China

A couple of weeks ago, China's highest government body published their conclusions from the second research session on continental climate change over a period of twelve months. Due to China's new global role and the number of unprecedented environmental issues in China, the Chinese prime minister was very keen to raise climate change as an important issue at the upcoming G8 summit in Hokkaido, Japan.

It should be highlighted that the Chinese central government also had a similar meeting and that China is a rapidly industrializing country with new coal-fueled power plants opening every week. China is like a terrifying carbon-guzzling monster. As a result of thirty years of industrialization, China now has the highest level of carbon dioxide emissions in the world. Carbon dioxide emissions are increasing up to eight per cent a year. The EU achieved a twenty per cent reduction, but China's emission rate was twice as much approaching the 2010 IPCC deadline for carbon dioxide emissions reduction.

However, it could be misleading to put too much emphasis on these statistics. A non-governmental organization (Climate Group) newspaper report presents a slightly different picture. According to the Clean Revolution in China, China is a nation that is more than aware of

its environmental issues but also has the potential to achieve a second miracle in 30 years.

The environmental price of the first “miracle” was that Chinese people always saw their daily lives. That’s why most of the policies are related to energy efficiency, energy-saving and other alternative energy sources. Those policies have already been met with some concern.

Whilst the personal sectors are so strong and developing, they are able to aid the central government to introduce laws, like the National Renewable Energy Law in 2006. This has set hard targets, including increasing the amount of energy made from new renewable sources from eight per cent to fifteen per cent until 2020. Also, it has guaranteed at least three per cent of renewable energy sources, such as biomass, solar and wind.

Both wind and solar power are so successful, but their origins are very different. With 6 gigawatts of energy made from wind turbines, surprisingly China is now ranked behind Germany, the US, Spain and India. Also, some believe China will reach 100 GW by 2020.

Wind power successfully shows that with central government aid China is ready for new policies, subsidies and advanced technology. This situation also has a role in the domestic market. The amount of electricity produced by wind farms can be a burden to fund.

Even though western countries invented an open marketplace set to dominate in China, there were few domestic incentives for solar power. In the global solar photovoltaic cell market, it is second only to Japan and growing fast. In China, the solar market has been a small business, because the cells are so expensive. This puts pressure on the government to rapidly follow up on their policies, for example, the role of the Climate Group is important in developing domestic markets.

However, the image of new coal-fueled power stations still looms large as they are opening every week. It is hard to imagine that China has achieved a 10.5 per cent of growth rate without such stations in the last quarter. However, how many people actually know that China has been closing its small power stations over the last couple of years? Step by step China is reducing its small power stations, first the 50-megawatt ones then the 100-megawatt ones and next will be the 300-megawatt power stations.

This policy is operated by the Chinese central government and backs up the new generation of coal station using the most advanced technologies with supercritical and ultra-supercritical improved clean coal. Capture functions and plants of carbon are researched and developed, but advanced thinking for the future is based on the technology of Integrated Gasification Combined Cycle (IGCC) that turn coal materials into synthetic gas to make power.

These days, Chinese consumers demand better homes and vehicles. Public awareness of energy-saving is on the rise. The Chinese government introduced a standard fuel economy for vehicles in 2004 of 15.6 kilometers per litre. This is higher than the US, Canada and Australia but behind Europe and Japan. In the meantime, in spite of a high 20 per cent tax on SUVs (Sport Utility Vehicles), the sale of these sorts of cars continues to increase.

Up to now, China has been the kingdom of the bicycle, importing the electric bike at 1,500 yuan ($220) per vehicle. Some of these vehicles have adopted an intelligent recovery system similar to that of hybrid cars. In 2007, the sale of electric bikes increased considerably and China is estimated to make up three-quarters of the world electric vehicle market.

China, already, is doing a lot on the bottom line. So, could it do more? The answer is yes, China should learn and open its mind through international communities. According to the Climate Group, they report the world should refine their image of China, just not fear it and,

constructively, work in unison. At the same time, China's government should develop a clean revolution and maintain internal pressure for improvements.

Questions 1-7

Instructions to follow

- Do the following statements reflect the claims of the writer in Reading Passage 1?
- In boxes 1-7 on your answer sheet, write
- YES if the statement reflects the opinion of the writer
- NO if the statement contradicts the opinion of the writer
- NOT GIVEN if it is impossible to say what the writer thinks about this

1 The Central Government of China concluded the second research scheme of climate change in less than one year.

2 The main topic of the G8 Meeting in Japan was to discuss greenhouse gas emissions.

3 The Chinese Government must compensate the European Union for the loss of climate change.

4 NGO's group reported about the truth of problems of a climate change in China.

5 Solar energy has increased the amount of energy.

6 With different launching, both wind and solar power are inefficient.

7 The high cost of cells causes less activity in the solar market in China.

Questions 8-13

Instructions to follow

- Choose **NO MORE THAN THREE WORDS** from the passage for each answer.

8 China is emitting …… of the outstanding rates in the world.

9 Statistics that can be misleading have been corrected by a ……

10 In 2006 ……. has set a hard target, waxing the amount of renewable sources.

11 What are the renewable sources mentioned in the passage? ……

12 Wind energy is based on subsidies, policies and the equitable …….

13 …….. should support to develop the domestic market in China facing financial problems.

Section 2

Tasmanian Tiger

A. Although it was called tiger, it looked like a dog with black stripes on its hack and it was the largest known carnivorous marsupial of modern times. Yet, despite its fame for being one of the most fabled animals in the world, it is one of the least understood of Tasmania's native animals. The scientific name for the Tasmanian tiger is Thylacine and it is believed that they have become extinct in the 20th century.

B. Fossils of thylacines dating from about almost 12 million years ago have been dug up at various places in Victoria, South Australia and Western Australia. They were widespread in Australia 7,000 years ago, but have probably been extinct on the continent for 2,000 years ago. This is believed to be because of the introduction of dingoes around 8,000 years ago. Because of disease, thylacine numbers may have been declining in Tasmania at the time of European settlement 200 years ago, but the decline was certainly accelerated by the new arrivals. The last known Titsmanijin Tiger died in I lobar! Zoo in 193fi and the animal is officially classified as extinct. Technically, this means that it has not been officially sighted in the wild or captivity for 50 years. However, there are still unsubstantiated sightings.

C. Hans Naarding, whose study of animals had taken him around the world, was conducting a survey of a species of endangered migratory bird. The cat he saw that night is now regarded as the most credible sighting recorded of thylacine that many believe has been extinct for more than 70 years.

D. "I had to work at night." Naarding takes up the story. "I was in the habit of intermittently shining a spotlight around. The beam fell on an animal in front of the vehicle, less than 10m away.

Instead of risking movement by grabbing for a camera, I decided to register very carefully what I was seeing. The animal was about the size of a small shepherd dog, a very healthy male in prime condition. What set it apart from a dog, though, was a slightly sloping hindquarter, with a fairly thick tail being a straight continuation of the backline of the animal. It had 12 distinct stripes on its back, continuing onto its butt. I knew perfectly well what I was seeing. As soon as I reached for the camera, it disappeared into the tea-tree undergrowth and scrub."

E. The director of Tasmania's National Parks at the time, Peter Morrow, decided in his wisdom to keep Naarding's sighting of the thylacine secret for two years. When the news finally broke, it was accompanied by pandemonium. "I was besieged by television crews, including four to five from Japan, and others from the United Kingdom, Germany, New Zealand and South America," said Naarding.

F. Government and private search parties combed the region, but no further sightings were made. The tiger, as always, had escaped to its lair, a place many insist exists only in our imagination. But since then, the thylacine has staged something of a comeback, becoming part of Australian mythology.

G. There have been more than 4,000 claimed sightings of the beast since it supposedly died out, and the average claims each year reported to authorities now number 150. Associate professor of zoology at the University of Tasmania, Randolph Rose, has said he dreams of seeing a thylacine. But Rose, who in his 35 years in Tasmanian academia has fielded countless reports of thylacine sightings, is now convinced that his dream will go unfulfilled.

H. "The consensus among conservationists is that usually; any animal with a population base of less than 1,000 is headed for extinction within 60 years," says Rose. "Sixty years ago, there was only one thylacine that we know of, and that was in Hobart Zoo," he says.

I. Dr. David Pemberton, curator of zoology at the Tasmanian Museum and Art Gallery, whose PhD thesis was on the thylacine, says that despite scientific thinking that 500 animals are required to sustain a population, the Florida panther is down to a dozen or so animals and, while it does have some inbreeding problems, is still ticking along. "I'll take a punt and say that, if we manage to find a thylacine in the scrub, it means that there are 50-plus animals out there."

J. After all, animals can be notoriously elusive. The strange fish is known as the coelacanth' with its "proto-legs", was thought to have died out along with the dinosaurs 700 million years ago until a specimen was dragged to the surface in a shark net off the south-east coast of South Africa in 1938.

K. Wildlife biologist Nick Mooney has the unenviable task of investigating all "sightings" of the tiger totaling 4,000 since the mid-1980s, and averaging about 150 a year. It was Mooney who was first consulted late last month about the authenticity of digital photographic images purportedly taken by a German tourist while on a recent bushwalk in the state. On face value, Mooney says, the account of the sighting, and the two photographs submitted as the proof amount to one of the most convincing cases for the species' survival he has seen.

L. And Mooney has seen it all – the mistakes, the hoaxes, the illusions and the plausible accounts of sightings. Hoaxers aside, most people who report sightings end up believing they have been a thylacine, and are themselves believable to the point they could pass a lie-detector test, according to Mooney. Others, having tabled a creditable report, then become utterly obsessed like the Tasmanian who has registered 99 thylacine sightings to date. Mooney has seen individuals bankrupted by the obsession, and families destroyed. "It is a blind optimism that something is, rather than a cynicism that something isn't," Mooney says. "If something crosses the road, it's not a case of 'I wonder what that was?' Rather, it is a case of 'that's a thylacine!' It

is a bit like a gold prospector's blind faith, 'it has got to be there'."

M. However, Mooney treats all reports on face value. "I never try to embarrass people or make fools of them. But the fact that I don't pack the car immediately they ring can often be taken as ridicule. Obsessive characters get irate that someone in my position is not out there when they think the thylacine is there."

N. But Hans Naarding, whose sighting of a striped animal two decades ago was the highlight of "a life of animal spotting", remains bemused by the time and money people waste on tiger searches. He says resources would be better applied to save the Tasmanian devil, and helping migratory bird populations that are declining as a result of shrinking wetlands across Australia.

O. Could the thylacine still be out there? "Sure," Naarding says. But he also says any discovery of surviving thylacines would be "rather pointless". "How do you save a species from extinction? What could you do with it? If there are thylacines out there, they are better off right where they are."

Questions 14-17

Instructions to follow

- Complete the summary below.
- Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.
- Write your answers in boxes 14-17 on your answer sheet.

The Tasmanian tiger, also called thylacine, resembles the look of a dog and has ……14…… on its fur coat. Many fossils have been found, showing that thylacines had existed as early as ……15…… years ago. They lived throughout ……16…… before disappearing from the mainland. And soon after the ……17…… settlers arrived the size of the thylacine

population in Tasmania shrunk at a higher speed.

Questions 18-23

Instructions to follow

- Look at the following statements (Questions 18-23) and the list of people below, match each statement with the correct person A, B, C or D.
- Write the correct letter A, B, C or D in boxes 18-23 on your answer sheet.
- NB You may use any letter more than once.

18 His report of seeing a live thylacine in the wild attracted international interest.

A ○ B ○ C ○ D ○

19 Many eye-witnesses' reports are not trustworthy.

A ○ B ○ C ○ D ○

20 It doesn't require a certain number of animals to ensure the survival of a species.

A ○ B ○ C ○ D ○

21 There is no hope of finding a surviving Tasmanian tiger.

A ○ B ○ C ○ D ○

22 Do not disturb them if there are any Tasmanian tigers still living today.

A ○ B ○ C ○ D ○

23 The interpretation of evidence can be affected by people's beliefs.

A ○ B ○ C ○ D ○

List of People

A Hans Naarding

B Randolph Rose

C David Pemberton

D Nick Mooney

Questions 24-26

Instructions to follow

- Choose the correct letter A, B, C or D.
- Write the correct letter in boxes 24-26 on your answer sheet.

24 Hans Naarding's sighting has resulted in

A government and organisations' cooperative efforts to protect thylacine

B extensive interests to find a living thylacine.

C increase in the number of reports of thylacine worldwide.

D growth of popularity of thylacine in literature.

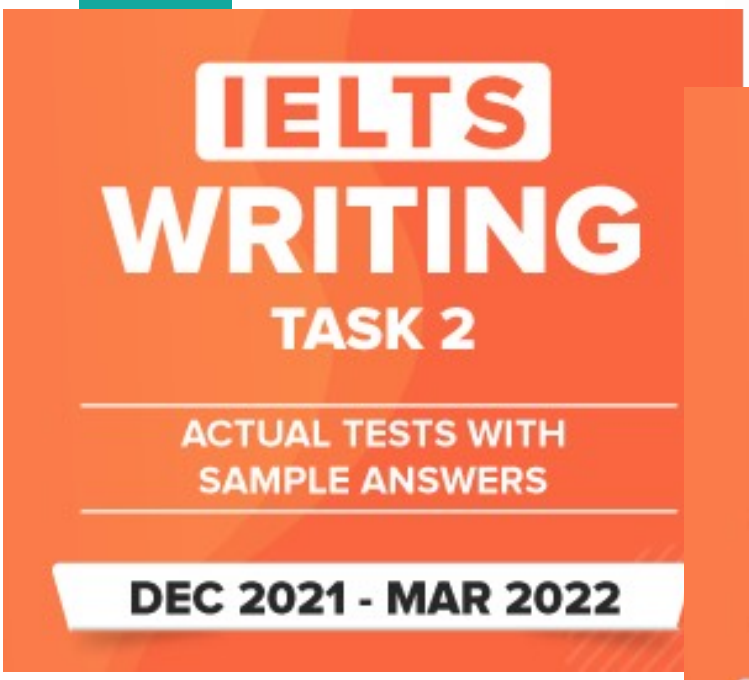
25 The example of the coelacanth is to illustrate

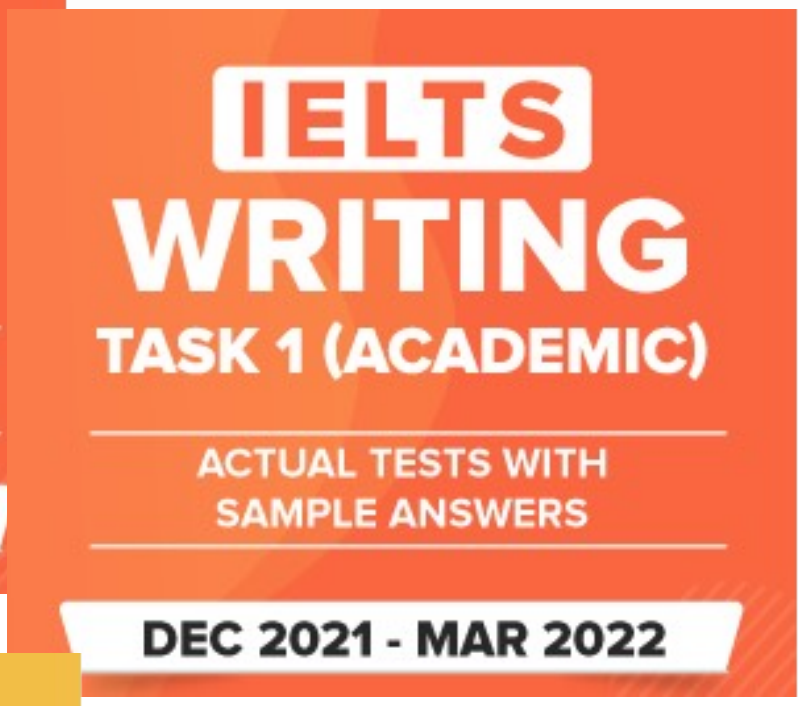
A it lived in the same period with dinosaurs.

B has dinosaurs evolved legs.

C some animals are difficult to catch in the wild.

D extinction of certain species can be mistaken.





Section 3

Left or Right?

A. Creatures across the animal kingdom have a preference for one foot, eye or even antenna. The cause of this trait, called lateralisation, is fairly simple: one side of the brain, which generally controls the opposite side of the body, is more dominant than the other when processing certain tasks. This does, on some occasions, let the animal down, such as when a toad fails to escape from a snake approaching from the right, just because it's right eye is worse at spotting danger than its left. So why would animals evolve a characteristic that seems to endanger them?

B. For many years it was assumed that lateralisation was a uniquely human trait, but this notion rapidly fell apart as researchers started uncovering evidence of lateralisation in all sorts of animals. For example, In the 1970s. Lesley Rogers, now at the University of New England in Australia, was studying memory and learning in chicks. She had been injecting a chemical into chicks' brains to stop them learning how to spot grains of food among distracting pebbles, and was surprised to observe that the chemical only worked when applied to the left hemisphere of the brain. That strongly suggested that the right side of the chicks brain played little or no role in the learning of such behaviours. Similar evidence appeared in songbirds and rats around same time, and since then, researchers have built up an impressive catalogue of animal lateralisation.

C. In some animals, lateralisation is simply a preference for a single paw or foot, while in others it appears in more general patterns of behaviour. The left side of most vertebrate brains, for example, seems to process and control feeding. Since the left hemisphere processes input from the right side of the body, that means animals as diverse as fish, toads and birds are more likely to attack prey or food items viewed with their right eye. Even humpback whales prefer to use the right side of their jaws to scrape sand eels from the ocean floor.

D. Genetics plays a part in determining lateralisation, but environmental factors have an impact too. Rogers found that a chick's lateralisation depends on whether it is exposed to light before hatching from its egg - if it is kept in the dark during this period, neither hemisphere becomes dominant. In 2004, Rogers used this observation to test the advantages of brain bias in chicks faced with the challenge of multitasking. She hatched chicks with either strong or weak lateralisation, then presented the two groups with food hidden among small pebbles and the threatening shape of a fake predator flying overhead. As predicted, the birds incubated in the light looked for food mainly with their right eye, while using the other to check out the predator The weakly-lateralized chicks, meanwhile, had difficulty performing these two activities simultaneously.

E. Similar results probably hold true for many other animals. In 2006, Angelo Bisazza at the University of Padua set out to observe the differences in feeding behaviour between strongly-lateralized and weakly-lateralized fish. He found that strongly-lateralized individuals were able to feed twice as fast as weakly-lateralized ones when there was a threat of a predator looming above them. Assigning different jobs to different brain halves may be especially advantageous for animals such as birds or fish, whose eyes are placed on the sides of their heads. This enables them to process input from each side separately, with different tasks in mind.

F. And what of those animals who favour a specific side for almost all tasks? In 2009, Maria Magat and Culum Brown at Macquarie University in Australia wanted to see if there was general cognitive advantage in lateralisation. To investigate, they turned to parrots, which can be either strongly right- or left-footed, or ambidextrous (without dominance). The parrots were given the intellectually demanding task of pulling a snack on a string up to their beaks, using a coordinated combination of claws and beak. The results showed that the parrots with the strongest foot

preferences worked out the puzzle far more quickly than their ambidextrous peers.

G. A further puzzle is why are there always a few exceptions, like left-handed humans, who are wired differently from the majority of the population? Giorgio Vallortigora and Stefano Ghirlanda of Stockholm University seem to have found the answer via mathematical models. These have shown that a group of fish is likely to survive a shark attack with the fewest casualties if the majority turn together in one direction while a very small proportion of the group escape in the direction that the predator is not expecting.

H. This imbalance of lateralisation within populations may also have advantages for individuals. Whereas most co-operative interactions require participants to react similarly, there are some situations - such as aggressive interactions - where it can benefit an individual to launch an attack from an unexpected quarter. Perhaps this can portly explain the existence of left-handers in human societies. It has been suggested that when it comes to hand-to-hand fighting, left-handers may have the advantage over the right-handed majority. Where survival depends on the element of surprise, it may indeed pay to be different.

Questions 27-30

Instructions to follow

- Complete each sentence with the correct ending. A-F, below.

27 In the 1970s, Lesley Rogers discovered that

A ○ B ○ C ○ D ○ E ○ F ○

28 Angelo Bisazza's experiments revealed that

A ○ B ○ C ○ D ○ E ○ F ○

29 Magat and Brown's studies show that

A ○ B ○ C ○ D ○ E ○ F ○

30 Vallortigora and Ghirlanda's research findings suggest that

A ○ B ○ C ○ D ○ E ○ F ○

A lateralisation is more common in some species than in others.

B it benefits a population if some members have a different lateralisation than the majority.

C lateralisation helps animals do two things at the same time.

D lateralisation is not confined to human beings.

E the greater an animal's lateralisation, the better it is at problem-solving.

F strong lateralisation may sometimes put groups of animals in danger.

Questions 31-35

Instructions to follow

- Complete the summary below. Choose ONE WORD ONLY from the passage.

Lesley Rogers' 2004 Experiment

Lateralisation is determined by both genetic and _____31_____ influences. Rogers found that chicks whose eggs are given _____32_____during the incubation period tend to have a stronger lateralisation. Her 2004 experiment set out to prove that these chicks were better at _____33_____than weakly lateralized chicks. As expected, the strongly lateralized birds in

the experiment were more able to locate ___34_____ using their right eye while using their left eye to monitor an imitation _____35_____located above them.

Questions 36-40

Instructions to follow

- Reading Passage 3 has eight paragraphs, A-H.
- Which paragraph contains the following information?

36 description of a study which supports another scientist's findings.

37 the suggestion that a person could gain from having an opposing lateralisation to most of the population.

38 reference to the large amount of knowledge of animal lateralisation that has accumulated.

39 research findings that were among the first to contradict a previous belief.

40 a suggestion that lateralisation would seem to disadvantage animals.

IELTS Reading Test 3

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

The Need to Belong

No one likes to feel left out, ignored by colleagues at meetings or not be invited to the big party that everyone is talking about. Imagine not being part of a joke, or worse still, if the joke is on you. For most people, living the life of an outsider can have a negative effect on self-esteem and mood. It can even lead to negative behaviour. The pull to belong is extremely strong. Scientists believe that, in part, there is an evolutionary explanation for why we have this need to belong.

In the past, people hunted and cooked together in tribes and each member of the group would be assigned a role. As each member had a purpose, it meant that in the event of the loss of one person, the group as a whole would suffer. For this reason, they had a vested interest in protecting each other. To our prehistoric ancestors, membership of a group meant the difference between survival and death.Those who were rejected and excluded from joining a group had to fend for themselves and struggled to stay alive alone in the wild.

Apart from protection, being part of a group also ensured that genes could be passed onto future generations. Although it is very different now from the way our primitive ancestors lived, our brains have not had time to evolve to fit today's lifestyles. In this day and age, it is no longer a matter of survival to be affiliated to a tribe or group, but the evolutionary instinct to find protection still lingers.

This inherent feeling of security that comes with being part of a group is powerful enough to make people employ both conscious and unconscious strategies to gain membership. One obvious way people try to be accepted into a group is self-presentation, which is the act of portraying yourself in the best possible light An individual will attempt to outwardly display the characteristics which are important to the group's advancement At the same time, they will conceal any parts of their personality that may be seen as undesirable or not useful to a group.

An example of self-presentation is the job application process. A candidate applying for a job will promote themselves as motivated, but is likely to hide the fact that they are disorganised. These conscious tactics that people use are not a surprise to anyone, but we also use other strategies unknowingly.

Psychologists Jessica Larkin, Tanya Chartrand and Robert Arkin suggested that people often resort to automatic mimicry to gain affiliation into groups, much like our primitive ancestors used to do. Before humans had the ability to speak, physical imitation was a method of begging for a place in the group. Most will be unaware they are doing it. Larkin and her co-workers decided to test this hypothesis.

They took a group of student volunteers and had them play a game called Cyberball, a ball tossing arcade game that resembled American football. The volunteers were led to believe they were all playing against each other, but in actual fact they were not. The computer was manipulating the game by passing the ball to some volunteers and excluding others.

The 'accepted and 'rejected students were then asked if they enjoyed the game and about their opinions of the other players. Participants were then put alone in a room and their natural foot movements were filmed. Then a female entered the room under the pretence of conducting a

fake photo description task. The female deliberately moved her foot during the task, but not in a way that would be noticeable to the volunteer. It turned out that the rejected students mimicked the female's foot movements the most This revealed that after exclusion, people will automatically mimic to affiliate with someone new.

However, Larkin and her colleagues wanted to go further.They believed that more often than not, in the real world, we actually know the people that reject us. How do we behave towards the group that we know has excluded us? The experiment was repeated with this question in mind. In the second experiment, only female volunteers played the Cyberball game, during which they experienced rejection by either men or women.Then each volunteer did the fake photo task, but this time with a man and then a woman.

The results clearly indicated that the female students that felt rejected would unconsciously make more of an effort to mimic members of their own in-group – that is, other women – rather than men. This deep-wired instinct to mimic was not only directed towards random people, as initially thought, but targeted to specific groups, the particular group that did the rejecting in the first place.

To some, it is inconceivable why people will go to great lengths to be accepted into one of life's social groups or clubs, enduring rejection and sometimes humiliation in order to be accepted. You only have to look at college campuses, which are notorious for strict initiations inflicted on candidates desperately seeking membership. But it happens and will continue to happen, because the desire to belong is a very powerful force and a fundamental part of human nature.

Questions 1-5

Instructions to follow

- Choose NO MORE THAN TWO WORDS from the passage for each answer.

Modern man's basic need to belong to clubs and groups dates back to early history. Each person within the group had a ……1…….. to play and was considered integral to the entire group's dynamics and success. For an individual, belonging to a group could affect their chances of ……2…….. In those times, few could avoid death living alone in ……3…….. . Living with other humans offered ……4…….. from danger. Staying in a group also meant that ……5…… could be passed down to descendants.

Questions 6-10

Instructions to follow

- Use NO MORE THAN THREE WORDS from the passage for each answer.

THE PROCEDURE FOR LARKIN'S EXPERIMENT

6 Volunteers believed they were playing a computer game, similar to ……

7 The computer was controlling the gameplay, …….. to some and not others.

8 The volunteers gave their …… after the game.

9 Each volunteer first sat on their own in a room and had their foot movements ……

10 The volunteer took part in a task with a woman who …… on purpose

Questions 11-13

Instructions to follow

- Choose the correct letter A,B,C or D.

11 Which of the following is NOT mentioned in the first paragraph?

A one experts view on evolution
B the consequences of being excluded
C being made fun of by the people around you
D a social event that people are eagerly awaiting

12 According to the article, which method do people consciously use to obtain membership into their chosen group?

A They tell the group they are strongly motivated.
B They convey the best parts of their personality to the group.
C They show how the group will be important to their lives.
D They alter aspects of their personality to suit others.

13 The writer's main purpose in writing this article is to

A explain how people feel when they face rejection.
B encourage people to go it alone and not be part of a group
C show the unconscious drive behind the need to belong.
D compare how the modern lifestyle is different to the past.

Section 2

Terrific Tupperware

A. Throw open anyone's kitchen cupboards from Andorra to Zimbabwe, and you'll find colourful plastic products for the preparation, serving, and storage of food. Chances are, some of these are Tupperware.

B. For many people in developed countries, Tupperware is redolent of the 1950s when grandma and her friends bought and sold it at 'Tupperware parties'. Some would even say Tupperware became a cultural icon in that decade. However, these days, while parties are still popular, online sales are challenging the model. Indeed, since 2000, more Tupperware franchises have opened in China than anywhere else.

C. Take the Hundred Benefits shop in Hangzhou, one of China's fastest-growing cities. Located in a chic part of town, it's full of twenty-somethings who haven't yet had a child but are building a nest. They've got plenty of expendable income, and they're picking out items to reflect their new-found optimism. China is undergoing a home-decorating revolution after years of dull, unreliable products.

Furthermore, the average size of living space for urban Chinese has almost doubled recently, so there's room for lots of stuff. But why choose a Tupperware? It's functional as well as fun. It's sealable, stackable, durable, microwave-and-freezable, dishwasher-friendly, and culturally sensitive: four-layer traditional Chinese lunch-boxes, revamped in bright sexy colours, grace the shelves of the Hundred Benefits shop.

D. What is the Tupperware story? The special plastic used in it was invented in 1938 by an American called Earl Tupper. The famous seals, which keep the air out and freshness in, came

later. Tupper's company was established in 1946, and for more than 40 years boasted every success, but, recently, Tupperware Brands Corporation has been sold several times, and its parent company, Illinois Tool Works, has announced that declining American prospects may mean resale.

E. Until the 1990s, Tupperware relied totally on a pyramid sales model. In this, a person buys products from a person above him or her, rather than from a wholesale company or retail shop, and after-sale of the new product to a third party gives a small percentage of the money to the person from whom he or she originally bought. In turn, when the person on the lowest level recruits more vendors, those people return percentages to the person above. Initially, Tupperware operated like this because it was not available in shops. A more direct line between the manufacturer and the buyer results in cheaper products, and, as Tupperware is largely sold in the home, women suddenly have an independent income. A disadvantage might be that since people typically buy from and sell to friends, there are pressures at ordinary social gatherings to do deals, which some people may consider unethical. This raises the question: am I going for a pleasant dinner at Alison's; or am I expected to buy a set of measuring cups from her as I leave?

This pyramid model is prohibited in China and has lost favour in many countries like Britain, Germany, Australia, and New Zealand, where once it was all-pervasive. At present, most US sales are still on the party plan, but online and franchise sales are catching up.

F. Tupperware became fashionable after World War II. During the war, large numbers of women were in paid employment outside the home while their men were away fighting. When the men returned, the women mostly resumed their household duties. There are widely divergent views about Tupperware's role at this time. Some feminists propose that the company promulgated an image of women confined to the kitchen, making the female pursuit of a career less likely. Others say that the pyramid sales model allowed women to earn, promoting autonomy and prosperity.

In particular, those who were pregnant and at home could enjoy some extra cash.

G. Effective rebranding of Tupperware has taken place in the East, but what about in America? Well, the Tupperware website there has developed a 'Chain of Confidence' programme to improve sales. In this, women reinforce the notion of female solidarity by purchasing Tupperware and swapping true stories. Over a million dollars from this programme has also been donated to a girls' charity.

H. What the future holds for the pretty plastic product is uncertain. Will Tupperware become a relic of the past like cane baskets and wooden tea chests, or will online social programmes and avid Chinese consumers save the company?

Questions 14-17

Instructions to follow

- The text has eight paragraphs: A-H.
- Which paragraph, A-H, has the following information?
- Write the correct letter, A-H, in boxes 14-17 on your answer sheet.

14 The benefits of Tupperware in the kitchen.

15 Opposing views on Tupperware and the position of women.

16 A sales model which might spoil the friendship.

17 Worldwide availability of Tupperware.

Questions 18-22

Instructions to follow

- Look at questions 18-22 and the list of countries below.
- Match each statement with a country.
- Write the letters, A-D, in boxes 18-22 on your answer sheet.

18 Consumers here are now less keen on the pyramid sales model

A ○ B ○ C ○ D ○

19 Tupperware buyers in this country give money to help others

A ○ B ○ C ○ D ○

20 Young women here lead the way in the purchase of Tupperware

A ○ B ○ C ○ D ○

21 The writer uses this to represent many countries

A ○ B ○ C ○ D ○

22 Just after World War II, Tupperware was established here

A ○ B ○ C ○ D ○

List of countries

A Andorra

B China

C Germany

D US

Questions 23-26

Instructions to follow

- Do the following statements agree with the claims of the writer in Reading Passage 2?
- In boxes 23-26 on your answer sheet, write:
- YES if the statement agrees with the claims of the writer
- NO if the statement contradicts the claims of the writer
- NOT GIVEN if it is impossible to say what the writer thinks about this

23 Keeping food fresh is something Tupperware does well.

24 Tupperware was responsible for a negative image of women in the 1950s.

25 Rebranding in China has been unsuccessful.

26 Tupperware containers are good for the environment.

Section 3

America's oldest art?

Set within treacherously steep cliffs, and hidden away valleys of northeast Brazil, is some of Southeast America's most significant and spectacular rock-art. Most of the art so far discovered from the ongoing excavations comes from the archaeologically – important National Park of the Serra da Capivara in the state of Piaui, and it is causing quite a controversy. The reason for the uproar? The art is being dated to around 25.CC0 or perhaps. According to some archaeologists, even 36,000 years ago. If correct, this is set to challenge the widely held view that America was first colonized from the north, via the Bering Straits from eastern Siberia at around 10.000 BC. only moving down into Central and South America in the millennia thereafter.

Prior to the designation of 130,000 hectares as a National Park, the rock-art sites were difficult to get to. and often dangerous to enter. In ancient times, this inaccessibility must have heightened the importance of the sites, and indeed of the people who painted on the rocks. Wild animals and human figures dominate the an. and are incorporated into often-complex scenes involving hunting, supernatural beings, fighting and dancing. The artists depicted the animals that roamed the local ancient brushwood forest. The large mammals are usually planted in groups and tend to be shown a running stance, as though trying to escape from hunting parties. Processions – lines of human and animal figures – also appear of great importance to these ancient artists. Might such lines represent family units or groups of warriors? On a number of panels, rows of stylized figures, some numbering up to 30 individual figures, were painted using the natural undulating contours of the rock surface, so evoking the contours of the seconding landscape. Other interesting, but very rare, occurrences are scenes that show small human figures holding on to and dancing around a tree, possibly involved in some tom of a ritual dance.

Due to the favourable climatic conditions. The imagery on many panels is in a remarkable state

of preservation. Despite this, however, there are serious conservation issues that affect their long term survival. The chemical and mineral quantities of the rock on which the imagery is painted is fragile and on several panels it is unstable. As well as the secretion of sodium carbonate on the rock surface, complete panel sections have, over the ancient and recent past, broken away from the main rock surface. These have then become buried and sealed into sometimes-ancient floor deposits. Perversely, this form of natural erosion and subsequent deposition has assisted archaeologists in dating several major rock-art sites. Of course, dating the art is extremely difficult due to the non-existence of plant and animal remains that might be scientifically dated. However, there am a small number of sites in the Serra da Capivara that are giving up their secrets through good systematic excavation. Thus, at Toca do Roquismo da Pedra Furada. rock-art researcher Niede Guidon managed to obtain a number of dates. At different levels of excavation, she located fallen painted rock fragments, which she was able to date to at least 36,000 years ago. Along with toe painted fragments, crude stone tools were found. Also discovered wore a series of scientifically datable sites of fireplaces, or hearths, the earliest dated to 46,000 BC arguably the oldest date for human habitation in America.

However, these conclusions are not without controversy. Critics, mainly from North America, have suggested that the hearths may in fact be a natural phenomenon, the result of seasonal brushwood fires. Several North American researchers have gone further and suggested that the rock art from this site dates from no earlier than about 3,730 years old, based on the results of limited radiocarbon dating. Adding further fool to the general debate is the fact that the artists in the area of the National Hark tended not to draw over old motifs (as often occurs with rock-art), which makes it hard to work out the relative chronology of the images or styles. However, the diversity of imagery and the narrative the paintings create from each of the many sites within the National Park suggests different artists were probably making their art at different times, and potentially using each site over many thousands of years.

With fierce debates thus raging over tho dating, where these artists originate from is also still very much open to speculation. The traditional view ignores the early dating evidence from the South American rock-art sites. In a revised scenario, some palaeo – anthropologists are now suggesting that modern humans may have migrated from Africa using the strong currents of the Atlantic Ocean some 63.000 years or more ago, while others suggest a more improbable colonization coming from the Pacific Ocean. Yet, while either hypothesis is plausible, there is still no supporting archaeological evidence between the South American coastline and the interior. Rather, it seems possible that there were a number of waves of human colonization of the Americas occurring possibly over a 60,000-100,000 year period, probably using the Bering Straits as a land bridge to cross into the Americas.

Despite the compelling evidence from South America, it stands alone: the earliest secure human evidence yet found in the state of Oregon in North America only dates to 12,300 years BC. So this is a fierce debate that is likely to go on for many more years. However, the splendid rock art and its allied anthropology of northeast Brazil, described here, is playing a huge and significant role in the discussion.

Questions 27-29

Instructions to follow

- Choose the correct letter, A, B, C or D.

27 According to the first paragraph, the rock-art in Serra da Capivara may revolutionize accepted ideas about …….

A ○ the way primitive people lived in North America.
B ○ the date when the earliest people arrived in South America.
C ○ the origin of the people who crossed the Bering Straits.
D ○ the variety of cultures which developed in South America.

28 How did the ancient artists use the form of the rock where they painted?

- A to mimic the shape of the countryside nearby
- B to emphasize the shape of different animals
- C to give added light and shade to their paintings
- D to give the impression of distance in complex works

29 In the fourth paragraph, what does the winter say that is unusual about the rock-artists of Serra da Capivara?

- A They had a very wide range of subject-matter.
- B Their work often appears to be illustrating a story.
- C They tended to use a variety of styles in one painting,
- D They rarely made new paintings on top of old ones.

Questions 30-36

Instructions to follow

- In boxes 30-36 on your answer sheet, write
- YES if the statement agrees with the claims of the writer
- NO if the statement contradicts the claims of the writer
- NOT GIVEN if it is impossible to say what the writer thinks about this

30 Archaeologists have completed their survey of the rock-art in Piaui.

31 The location of the rock-art suggests that the artists had a significant role in their society.

32 The paintings of animals show they were regarded as sacred by the ancient humans.

33 Some damage to paintings is most likely due to changes in the weather of the region.

34 The fact that some paintings were buried is useful to archaeologists.

35 The tools found near some paintings were probably used for hunting animals.

36 The North American researchers have confirmed Niede Guidon's dating of the paintings.

Questions 37-40

Instructions to follow

- Complete each sentence with the correct ending, A-F below.

37 Materials derived from plants or animals .....

A ○ B ○ C ○ D ○ E ○ F ○

38 The discussions about the ancient hearths .....

A ○ B ○ C ○ D ○ E ○ F ○

39 Theories about where the first South Americans originated from .....

A ○ B ○ C ○ D ○ E ○ F ○

40 The finds of archaeologists in Oregon .....

A ○ B ○ C ○ D ○ E ○ F ○

A are giving rise to a great deal of debate among palaeo-anthropologists.

B do not support the earliest dates suggested for the arrival of people in America.

C are absent from rock-art sites In the Serra da Capivara.

D have not been accepted by academics outside America.

E centre on whether or not they are actually man-made.

F reflect the advances in scientific dating methods

IELTS Reading Test 4

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

Astronaut ice cream, anyone?

Breeze-drying is a technique that can help to provide food for astronauts. But it also has other applications nearer home.

A. Freeze-drying is like suspended animation for food: you can store a freeze-dried meal for years, and then, when you're finally ready to eat it. you can completely revitalise it with a little hot water. Even after several years, the original foodstuff will be virtually unchanged.

B. The technique basically involves completely removing the water from some material, such as food while leaving the rest of the material virtually intact. The main reason for doing this is either to preserve the food or to reduce its weight. Removing the water from food keeps it from spoiling, because the microorganisms such as bacteria that cause spoiling cannot survive without it. Similarly, the enzymes which occur naturally in food cannot cause ripening without water, so removing water from food will also stop the ripening process.

C. Freeze-drying significantly reduces the total weight of the food because most food is largely made up of water; for example, many fruits are more than 80 00% water. Removing this makes the food much lighter and therefore makes transportation less difficult. The military and camping-supply companies freeze-dry foods to make them easier for an individual to carry and

NASA has also freeze-dried foods for the cramped quarters on board spacecraft.

D. The process is also used to preserve other sorts of material, such as pharmaceuticals. Chemists can greatly extend pharmaceutical shelf life by freeze-drying the material and storing it in a container free of oxygen and water. Similarly, research scientists may use freeze-drying to preserve biological samples for long periods of time. Even valuable manuscripts that had been water damaged have been saved by using this process.

E. Freeze-drying is different from simple drying because it is able to remove almost all the water from materials, whereas simple drying techniques can only remove 90-95%. This means that the damage caused by bacteria and enzymes can virtually be stopped rather than just slowed down. In addition, the composition and structure of the material is not significantly changed, so materials can be revitalised without compromising the quality of the original.

F. This is possible because in freeze-drying, solid water – ice – is converted directly into water vapour, missing out the liquid phase entirely. This is called 'sublimation', the shift from a solid directly into a gas. Just like evaporation, sublimation occurs when a molecule gains enough energy to break free from the molecules around it. Water will sublime from a solid (ice) to a gas (vapour) when the molecules have enough energy to break free but the conditions aren't right for a liquid to form.

These conditions arc determined by heat and atmospheric pressure. When the temperature is above freezing point, so that ice can thaw, but the atmospheric pressure is too low for a liquid to form (below 0.06 atmospheres (ATM)) then it becomes a gas.

G. This is the principle on which a freeze-drying machine is based. The material to be preserved is placed in a freeze-drying chamber which is connected to a freezing coil and refrigerator

compressor. When the chamber is sealed the compressor lowers the temperature inside it. I he material is frozen solid, which separates the water from everything around it on a molecular level, even though the water is still present. Next, a vacuum pump forces air out of the chamber, lowering the atmospheric pressure below to 0.06 ATM.

The heating units apply a small amount of heat to the shelves in the chamber, causing the ice to change phase. Since the pressure in the chamber is so low, the ice turns directly into water vapour, which leaves the freeze-drying chamber, and flows past the freezing coil. The water vapour condenses onto the freezing coil in the form of solid ice, in the same way that water condenses as frost on a cold day.

H. The process continues for many hours (even days) while the material gradually dries out. This time is necessary to avoid overheating, which might affect the structure of the material. Once it has dried sufficiently, it is sealed in a moisture-free package. As long as the package is secure, the material can sit on a shelf for years and years without degrading, until it is restored to its original form with a little hot water. If everything works correctly, the material will go through the entire process almost completely unscathed.

I. In fact, freeze-drying, as a general concept, is not new but has been around for centuries. The ancient Incas of Peru used mountain peaks along the Andes as natural food preservers. The extremely cold temperatures and low pressure at those high altitudes prevented food from spoiling in the same basic way as a modern freeze-drying machine and a freezer.

Questions 1-5

Instructions to follow

- Choose NO MORE THAN THREE WORDS from the passage for each answer.

Uses of freeze-drying:

– food preservation

– easy ……(1)……. of food items

– long-term storage of ……(2)……. and biological samples

– preservation of precious ……(3)……

Freeze-drying

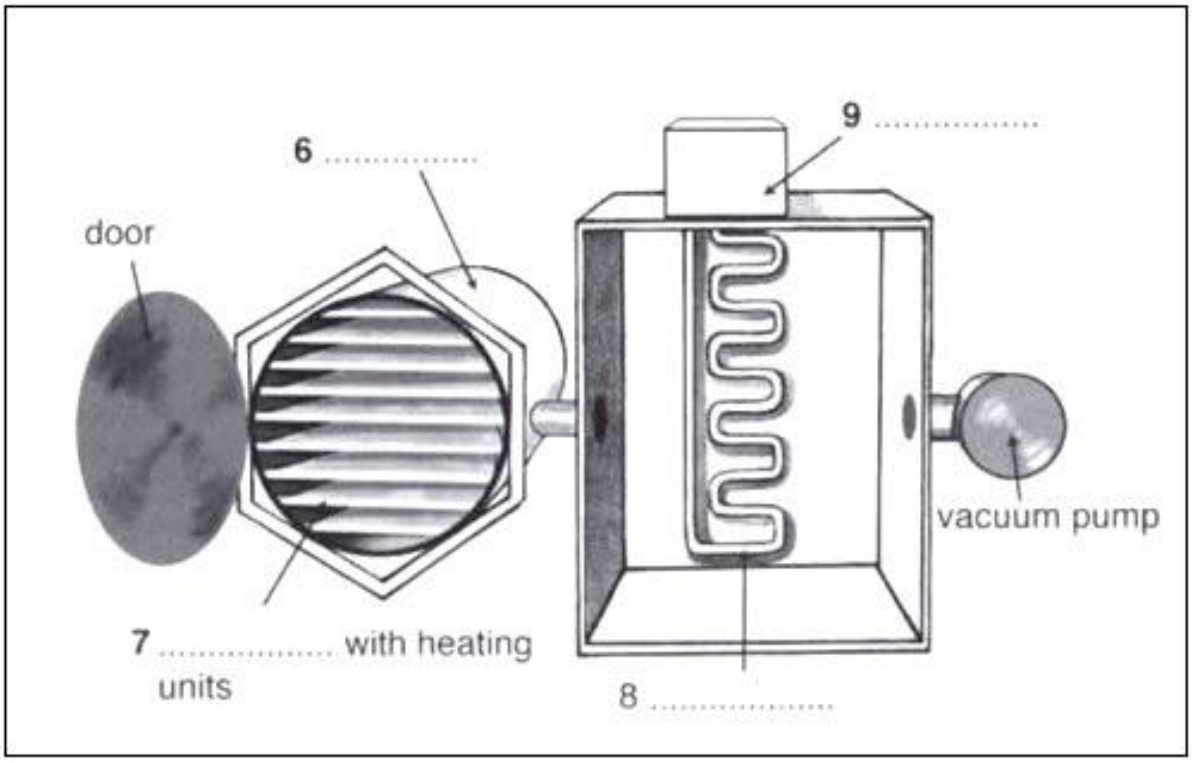
– is based on process of ……(4)……. is more efficient than ……(5)…….

Questions 6-9

Instructions to follow

- Choose NO MORE THAN TWO WORDS from the passage for each answer.

A simplified freeze-drying machine



6 _____

7 _____

8 _____

9 _____

Questions 10-13

Instructions to follow

- Choose NO MORE THAN THREE WORDS AND/OR A NUMBER from the passage for each answer.

Freeze-drying prevents food from going bad by stopping the activity of microorganisms or ……10…….. Its advantages are that the food tastes and feels the same as the original because both the ……11…….. and structure are preserved. The process is carried out slowly in order to ensure that ……12…….. does not take place. The people of one ancient mountain civilisation were able to use this method of food preservation because the conditions needed were present at ……13…… .

Section 2

Space Flight Tourism

Falcon 1's successful launch on 28th of September was an outstanding achievement for the fledgeling space tourism industry. When a rocket made by Space X in Hawthorne, California, reached an orbit of 500 kilometres from the Earth, it became possible for privately developed rocket too.

Two days after the launch, Virgin Galactic started a business with the US National Oceanic and Atmospheric Administration which will be accepted by US scientists as a way of researching climate change using a spacecraft.

No doubt the civilian space flight industry is an exciting area and this was apparent at the International Aeronautical Congress in Glasgow last month. It displayed slick promotional videos, and models of the "Nearly Ready" spacecraft in orbit to the people who would be investing money in the project.

However, in spite of increasing confidence, it is also necessary to be cautious: can a civilian spacecraft be safe like holiday airlines? Gerardine Goh, a lawyer at DLR, the German Aerospace Centre in Bonn and a member of Germany's delegation to the UN's Office of Outer Space Affairs reported that as it is not global, there need to be enforceable regulations in place to guarantee the safety of a civilian spacecraft. She said, "Ships should be equipped to be seaworthy, aircraft should be equipped to be airworthy but there is no legislation in place to ensure that a spacecraft is spaceworthy."

At the International Association for the Advancement of Space Safety, Goh is planning to press

the UN to force civilian space operators to warrant which spacecraft are designed and built to minimum safety standards. She says, “Mass commercial space flight does not currently have international safety regulations.” and “We deeply need a UN treaty which offers us this.”

One way companies are planning to transport tourists into space is with a “mother ship”, an aircraft which carries a rocket at an altitude of 16 kilometres before launching it, says Goh. “But with launching the aircraft, the ICAO’s air safety standards only apply to the mother ship and the rocket capsule until they are separated. After that, we do not have any safety standards for the capsule itself. It is a critical problem.”

From 16 kilometres to the Karman line, the point of 100 kilometres up where space is considered to start, the rocket will be travelling within a legal vacuum. Here, lawyers cannot agree on whether it is a plane or a rocket. Some insist that if you are in a well-equipped functioning rocket, more strict safety measures should try to be incorporated into the spaceship’s design.

The other aspects of the UN’s 1967 treaty for outer space exploration may be discussed again if civilian space flight turns out to be successful. For example, countries must consider how to rescue and repatriate astronauts crashing or landing in their land. Also, governments have to decide if the money generated by the space flight industry will be enough to cover the cost of rescuing space tourists.

Civilian space flight companies are very aware of the risks in this field as they have already had the experience of dealing with a tragedy. Unfortunately, three engineers were killed and another three were severely injured in 2007, when nitrous oxide rocket fuel suddenly exploded during fuel flow tests at a Scaled Composites facility in Mojave, California. The company is establishing WhiteKnightTwo, a carrier aircraft and SpaceShip Two, a six-seater rocket for Virgin Galactic. The facility was regulated by California’s health and safety regulator, and it has now modified its

technology to decrease the risks.

However, space flight's dangers are far from just fuel issues. According to Laurent Gathier of Dassault Aviation developing the VSH of a rocket powered sub-orbital tourist space plane, other critical safety factors are with depressurization risks, passengers close to the engine and the activities of flight trajectories including cosmic ray shielding.

Civilian space companies should incorporate the safety features into their designs. For instance, the VSH will equip an ejector seat for all tourists and staff. It is a device for bailing out of the spacecraft with a default of 40,000 feet (12 kilometres).

Goh's vision is essentially against the Federal Aviation Administration Office of Commercial Space Transportation (AST) and does not have any schemes to regulate civilian space flight safety until 2012. The Commercial Space Launch Amendments Act of 2004 mentions that George Nield as AST chief said, the civilian space flight regulation must not "stifle" the developing technologies with inconvenient rules.

Before launching, a hands-off approach to civilian space flight could be quite risky. Goh said, "A lack of safety standards and a lot of operational burdens will leave a commercial space flight in the dangerous activity categories in terms of the insurance." It means insurance costs will be very high. Critics who are developing safety standards also insist that the "at-your-own-risk" mentality that is applied to risky sports like scuba-diving should also be applied to civilian space flight.

Questions 14-20

Instructions to follow

- Choose NO MORE THAN THREE WORDS from the passage for each answer.

On 28 September the emerging space tourism industry was enormous. In Hawthorne, California, a rocket was erected by ……14…… Climate change was monitored by ……15…… in the US National Oceanic and Atmospheric Administration using its spacecraft. In Glasgow, at the International Aeronautical meeting, it is apparent that the civilian space flight industry is growing, as it showed the ……16…… spacecraft which promised sub-orbital flights. Although developing confirmation, regulation is clear to guarantee ……17…… A method for space business is cooperating with a ……18…… conveyable at 16 kilometres in the skies. From 16 kilometres to 100 kilometres' travelling may be available, but lawyers definitely cannot agree with whether it is a ……19…… or a rocket. ……20…… need to be revisited if civilian space flight proves successful.

Questions 21-26

Instructions to follow

- Complete each sentence with the correct ending A-I below.

21 Civilian space flight companies

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

22 Laurent Gathier

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

23 VSH devised for a safety

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

24 AST chief George Nield

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

25 Insurance costs

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

26 Critics

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

A assisted some minimum safety standards may prevent that.

B emphasised a civilian space flight must not be under a severe regulation for technical advancement.

C hardly need a reminder of the danger when considering past experiences.

D will protect a commercial space flight.

E try to develop a module of safety regulations applied to civilian space flight.

F made up for an ejector seat for tourists and the crew in case of a craft emergency in the skies.

G indicated the main safety problems were with passengers' proximity to the powerful engine.

H believed that scuba-diving should be applied to civilian space flight.

I kept costs stratospheric.

Section 3

Honey Bees in Trouble

Can native pollinators fill the gap?

A. Recently, ominous headlines have described a mysterious ailment, colony collapse disorder (CCD), that is wiping out the honeybees that pollinate many crops. Without honeybees, the story goes, fields will be sterile, economies will collapse, and food will be scarce.

B. But what few accounts acknowledge is that what's at risk is not itself a natural state of affairs. For one thing, in the United States, where CCD was first reported and has had its greatest impacts, honeybees are not a native species. Pollination in modern agriculture isn't alchemy, it's industry. The total number of hives involved in the U.S. pollination industry has been somewhere between 2.5 million and 3 million in recent years. Meanwhile, American farmers began using large quantities of organophosphate insecticides, planted large-scale crop monocultures, and adopted "clean farming" practices that scrubbed native vegetation from field margins and roadsides.

These practices killed many native bees outright – they're as vulnerable to insecticides as an agricultural pest – and made the agricultural landscape inhospitable to those that remained. Concern about these practices and their effects on pollinators isn't new – in her 1962 ecological alarm cry Silent Spring, Rachel Carson warned of a 'Fruitless Fall' that could result from the disappearance of insect pollinators.

C. If that 'Fruitless Fall' has not-yet-occurred, it may be largely thanks to the honeybee, which farmers turned to as the ability of wild pollinators to service crops declined. The honeybee has been semi-domesticated since the time of the ancient Egyptians, but it wasn't just familiarity that determined this choice: the bees' biology is in many ways suited to the kind of agricultural system

that was emerging.

For example, honeybee hives can be closed up and moved out of the way when pesticides are applied to a field. The bees are generalist pollinators, so they can be used to pollinate many different crops. And although they are not the most efficient pollinator of every crop, honeybees have strength in numbers, with 20,000 to 100,000 bees living in a single hive. “Without a doubt, if there was one bee you wanted for agriculture, it would be the honeybee,” says Jim Cane, of the U.S. Department of Agriculture.

The honeybee, in other words, has become a crucial cog in the modern system of industrial agriculture. That system delivers more food, and more kinds of it, to more places, more cheaply than ever before. But that system is also vulnerable, because making a farm field into the photosynthetic equivalent of a factory floor, and pollination into a series of continent-long assembly lines, also leaches out some of the resilience characteristics of natural ecosystems.

D. Breno Freitas, an agronomist, pointed out that in nature such a high degree of specialization usually is a very dangerous game: it works well while all the rest is in equilibrium, but runs quickly to extinction at the least disbalance. In effect, by developing an agricultural system that is heavily reliant on a single pollinator species, we humans have become riskily overspecialized. And when the human-honeybee relationship is disrupted, as it has been by colony collapse disorder, the vulnerability of that agricultural system begins to become clear.

E. In fact, a few wild bees are already being successfully managed for crop pollination. “The problem is trying to provide native bees inadequate numbers on a reliable basis in a fairly short number of years in order to service the crop,” Jim Cane says. “You’re talking millions of flowers per acre in a two-to three-week time frame, or less, for a lot of crops.” On the other hand, native bees can be much more efficient pollinators of certain crops than honeybees, so you don’t need

as many to do the job.

For example, about 750 blue orchard bees (Osmia lignaria) can pollinate a hectare of apples or almonds, a task that would require roughly 50,000 to 150,000 honeybees. There are bee tinkerers engaged in similar work in many corners of the world. In Brazil, Breno Freitas has found that Centris tarsata, the native pollinator of wild cashew, can survive in commercial cashew orchards if growers provide a source of floral oils, such as by interplanting their cashew trees with a Caribbean cherry.

F. In certain places, native bees may already be doing more than they're getting credit for. Ecologist Rachael Winfree recently led a team that looked at pollination of four summer crops (tomato, watermelon, peppers, and muskmelon) at 29 farms in the region of New Jersey and Pennsylvania. Winfree's team identified 54 species of wild bees that visited these crops, and found that wild bees were the most important pollinators in the system: even though managed honeybees were present on many of the farms, wild bees were responsible for 62 percent of flower visits in the study.

In another study focusing specifically on watermelon, Winfree and her colleagues calculated that native bees alone could provide sufficient pollination at 90 percent of the 23 farms studied. By contrast, honeybees alone could provide sufficient pollination at only 78 percent of farms.

G. "The region I work in is not typical of the way most food is produced," Winfree admits. In the Delaware Valley, most farms and farm fields are relatively small, each farmer typically grows a variety of crops, and farms are interspersed with suburbs and other types of land use which means there are opportunities for homeowners to get involved in bee conservation, too.
The landscape is a bee-friendly patchwork that provides a variety of nesting habitat and floral resources distributed among different kinds of crops, weedy field margins, fallow fields, suburban

neighborhoods, and semi-natural habitat like old woodlots, all at a relatively small scale. In other words, “pollinator-friendly” farming practices would not only aid pollination of agricultural crops, but also serve as a key element in the overall conservation strategy for wild pollinators, and often aid other wild species as well.

H. Of course, not all farmers will be able to implement all of these practices. And researchers are suggesting a shift to a kind of polyglot agricultural system. For some small-scale farms, native bees may indeed be all that’s needed. For larger operations, a suite of managed bees – with honeybees filling the generalist role and other, native bees pollinating specific crops – could be augmented by free pollination services from resurgent wild pollinators. In other words, they’re saying, we still have an opportunity to replace a risky monoculture with something diverse, resilient, and robust.

Questions 27-30

Instructions to follow

- Do the following statements agree with the claims of the writer in Reading Passage 3?
- YES if the statement agrees with the claims of the writer
- NO if the statement contradicts the claims of the writer
- NOT GIVEN if it is impossible to say what the writer thinks about this

27 In the United States, farmers use honeybees on a large scale over the past few years.

28 Cleaning farming practices would be harmful to farmers’ health.

29 The blue orchard bee is the most efficient pollinator among native bees for every crop.

30 It is beneficial to other local creatures to protect native bees.

Questions 31-35

Instructions to follow

- Choose the correct letter, A, B, C or D.

31 The example of the "Fruitless Fall" underlines the writer's point about

A needs for using pesticides.
B impacts of losing insect pollinators.
C vulnerabilities of native bees.
D benefits in building more pollination industries.

32 Why can honey bees adapt to the modern agricultural system?

A the honeybees can pollinate more crops efficiently
B The bees are semi-domesticated since ancient times.
C Honeybee hives can be protected away from pesticides.
D The ability of wild pollinators using to serve crops declines.

33 The writer mentions factories and assembly lines to illustrate

A one drawback of the industrialised agricultural system.
B A low cost in modern agriculture.
C The role of honeybees in pollination.
D what a high yield of industrial agriculture.

34 In the 6th paragraph, Winfree's experiment proves that

A honeybee can pollinate various crops.
B There are many types of wild bees as the pollinators.
C the wild bees can increase the yield to a higher percentage
D wild bees work more efficiently as a pollinator than honey bees in certain

cases

35 What does the writer want to suggest in the last paragraph?

A the importance of honey bees in pollination

B adoption of different bees in various sizes of the agricultural system

C the comparison between the intensive and the rarefied agricultural system

D the reason why farmers can rely on native pollinators

Questions 36-40

Instructions to follow

- Complete each sentence with the correct ending, A-F, below.

36 The headline of colony collapse disorder states that

A B C D E F

37 Viewpoints of Freitas manifest that

A B C D E F

38 Examples of blue orchard bees have shown that

A B C D E F

39 Centris tarsata is mentioned to exemplify that

A B C D E F

40 One finding of the research in Delaware Valley is that

A B C D E F

A native pollinators can survive when a specific plant is supplied.

B it would cause severe consequences both to commerce and agriculture.

C honey bees can not be bred.

D Some agricultural landscapes are favorable in supporting wild bees.

E a large scale of honey bees are needed to pollinate.

F an agricultural system is fragile when relying on a single pollinator

IELTS Reading Test 5

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

South pole adventurer

FOR a few weeks in January 1912, Antarctica was full of explorers. Norwegian Roald Amundsen had reached the South Pole on 14 December and was speeding back to the coast. On 17 January, Robert Scott and the men of the British Antarctic expedition had arrived at the pole to find they had been beaten to it. Just then, a third man arrived; Japanese explorer Nobu Shirase. However, his part in one of the greatest adventure stories of the 20th century is hardly known outside his own country, even by fellow explorers. Yet as Scott was nearing the pole and with the rest of the world still unaware of Amundsen's triumph, Shirase and his team sailed into Antarctica's Bay of Whales in the smallest ship ever to try its luck in these dangerous waters.

Since boyhood Shirase had dreamed of becoming a polar explorer. Like Amundsen, he initially set his sights on the North Pole. But after the American Robert Peary claimed to have reached it in 1909, both men hastily altered their plans. Instead they would aim for the last big prize: the South Pole. In January 1910, Shirase put his plans before Japanese government officials,

promising to raise the flag at the South Pole within three years. For many of them, the question wasn't could he do it but why would it be worth doing? 15 years earlier the International Geographical Congress had said that as the last unknown continent the Antarctic offered the chance to add to knowledge in almost every branch of science. So, like the British, Shirase presented his expedition as a search for knowledge: he would bring back fossils, make meteorological measurements and explore unknown parts of the continent.

The response from the government was cool, however, Shirase struggled to raise funds. Fortunately, a few months later, Japan's former prime minister Shigenobu Okuma came to Shirase's rescue. With Okuma's backing, Shirase got together just enough money to buy and equip a small ship. He eventually acquired a scientist, too, called Terutaro Takeda. At the end of November 1910, his ship the Kainan Maru finally left Tokyo with 27 men and 28 Siberian dogs on board. Before leaving, Shirase confidently outlined his plans to the media. He would sail to New Zealand, then reach Antarctica in February, during the southern summer, and then proceed to the pole the following spring. This was not to be, however. Bad weather delayed the expedition and they didn't reach New Zealand until 8 February; Amundsen and Scott had already been in Antarctica for a month, preparing for winter. In New Zealand local reporters were astonished: the ship was half the size of Amundsen's ship. True, it was reinforced with iron plate and extra wood, but the ship had only the feeblest engine to help force its way through ice. Few doubted Shirase's courage, but most reckoned the expedition to be ill- prepared as the Japanese had only

lightweight sledges for transport across the ice, made of bamboo and wood.

But Shirase's biggest challenge was time. Antarctica is only accessible by sea for a few weeks in summer and expeditions usually aimed to arrive in January or February. 'Even with their determination and daring, our Japanese friends are running it rather fine,' wrote local reporters. Nevertheless, on 11 February the Kainan Maru left New Zealand and sailed straight into the worst weather the captain had ever seen. Then, on 6 March, they approached the coastline of Antarctica's Ross Sea, looking for a place to land. The ice began to close in, threatening to trap them for the winter, an experience no one was likely to survive. With a remarkable piece of seamanship, the captain steered the ship out of the ice and turned north. They would have to wait out the winter in a warmer climate.

A year later than planned, Shirase and six men finally reached Antarctica. Catching up with Scott or Amundsen was out of the question and he had said he would stick to science this time. Yet Shirase still felt the pull of the pole and eventually decided he would head southward to experience the thrills and hardships of polar exploration he had always dreamed of. With provisions for 20 days, he and four men would see how far they could get.

Shirase set off on 20 January 1912 with Takeda and two dog handlers, leaving two men at the edge of the ice shelf to make meteorological measurements. For a week they struggled through

one blizzard after another, holding up in their tents during the worst of the weather. The temperature fell to -25°C, and frostbite claimed some of the dogs. On 26 January, Shirase estimated there were enough provisions to continue for two more days. Two days later, he announced it was time to turn back. Takeda calculated they had reached 80° 5 south and had travelled 250 kilometres. The men hoisted the Japanese flag.

On 3 February, all the men were heading home. The ship reached Tokyo in June 1912 – and Shirase was greeted like a hero despite the fact that he never reached the pole. Nor did he contribute much to science – but then nor did Amundsen, whose only interest was in being first to the pole. Yet Shirase's expedition was heroic. They travelled beyond 80° south, one of only four teams to have gone so far south at the time. Furthermore, they did it all without the advantages of the other teams and with no previous experience.

Questions 1-8

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1 ?
- In boxes 1-8 on your answer sheet, write
- **TRUE** if the statement agrees with the information
- **FALSE** if the statement contradicts the information
- **NOT GIVEN** if there is no information on this

1 Shirase's trip to the South Pole is well-known to other explorers.

2 Since Shirase arrived in Antarctica, smaller ships have also made the journey.

3 Shirase's original ambition was to travel to the North Pole.

4 Some Japanese officials thought Shirase's intention to travel to the South Pole was pointless.

5 The British team announced their decision to carry out scientific research in Antarctica before Shirase.

6 Shirase found it easy to raise the money he needed for his trip to the South Pole.

7 A previous prime minister of Japan persuaded a scientist to go with Shirase.

8 The weather that slowed down Shirase's progress to New Zealand was unusually bad for the season.

Questions 9-13

Instructions to follow

- Choose the correct letter; A, B, C or D.

9 When reporters in New Zealand met Shirase, they were

A ◯ concerned about the quality of his equipment.
B ◯ impressed with the design of his ship.
C ◯ certain he was unaware of the dangers ahead.
D ◯ surprised by the bravery he demonstrated.

10 What are we told about the captain of the Kainan Maru in the fourth paragraph?

A ◯ He had given Shirase some poor advice.

B His skill at sailing saved the boat and crew.

C He refused to listen to the warnings of others.

D He was originally confident they could reach Antarctica.

11 After Shirase finally reached Antarctica he realised that

A He was unsure of the direction he should follow.

B he would have to give up on fulfilling his personal ambition.

C he might not have enough food to get to the South Pole.

D he still wanted to compete in the race against the other teams.

12 What is the writer doing in the Sixth paragraph ?

A criticising a decision concerning scientific research.

B explaining why a particular mistake had occurred.

C describing the conditions that the expedition faced.

D rejecting the idea that Shirase was poorly prepared.

13 What is the writer's main point in the final paragraph?

A Considering the problems Shirase had to deal with, his achievement was in credible.

B In Japan, the reaction to Shirase's adventure in Antarctica came as a surprise to him.

C It was obvious that Amundsen would receive more attention as an explorer than Shirase.

D Shirase had achieved more on the Antarctic expedition than even he had expected.

Section 2

The Rise of Agribots

The next time you stand at the supermarket checkout, spare a thought for the farmers who helped fill your shopping basket as life is hard for them right now. This, in turn, inevitably means bigger grocery bills for consumers, and greater hardship for the millions in countries where food shortages are a matter of life and death. Worse, studies suggest that the world will need twice as much food by 2050. Yet while farmers must squeeze more out of the land, they must also address the necessity of reducing their impact on the soil, waterways and atmosphere. All this means rethinking how agriculture is practised, and taking automation to a whole new level. On the new model farms of the future, precision will be key. Why dose a whole field with chemicals if you can spray only where they are needed? Each plant could get exactly the right amount of everything, no more or less, an approach that could slash chemical use and improve yields in one move. But this is easier said than done; the largest farms in Europe and the U.S. can cover thousands of acres. That's why automation is key to precision farming. Specifically, say agricultural engineers, precision farming needs robot farmers.

One day, we might see fields with 'agribots' (agricultural robots) that can identify individual seedlings and encourage them along with drops of fertilizer. Other machines would distinguish problem weeds from crops and eliminate them with shots from high-power lasers or a microdot of pesticide. These machines will also be able to identify and harvest all kinds of vegetables. More than a century of mechanization has already turned farming into an industrial-scale activity in much of the world, with farms that grow cereals being the most heavily automated.

But a variety of other crops, including oranges and tomatoes destined to become processed foods, are also picked mechanically, albeit to a slightly lesser extent. Yet the next wave of autonomous farm machinery is already at work. You probably haven't even noticed, for these

robots are disguised as tractors. Many are self-steering, use GPS to cross a field, and can even 'talk' to their implements – a plough or sprayer, for example. And the implements can talk back, telling the tractor that it's going too fast or needs to move to the left. This kind of communication is also being developed in other farm vehicles. A new system allows a combine harvester, say, to send a call over to a tractor- trailer so the driver can unload the grain as and when necessary.

However, when fully autonomous systems take to the field, they'll look nothing like tractors. With their enormous size and weight, today's farm machines have significant downsides: they compact the soil, reducing porosity and killing beneficial life, meaning crops don't grow so well. Simon Blackmore, who researches agricultural technology at Harper Adams University College in England believes that fleets of lightweight autonomous robots have the potential to solve this problem and that replacing brute force with precision is key. 'A seed only needs one cubic centimeter of soil to grow. If we cultivate just that we only put tiny amounts of energy in and the plants still grow nicely.' There is another reason why automation may be the way forward according to Eldert van Henten, a robotics researcher at Wageningen University in the Netherlands. 'While the population is growing and needs to be fed, a rapidly shrinking number of people are willing to work in agriculture,' he points out. Other researchers such as Linda Calvin, an economist at the U.S. Department of Agriculture, and Philip Martin at the University of California, Davis, have studied trends in mechanization to predict how US farms might fare. Calvin and Martin have observed how rising employment costs have led to the adoption of labour-saving farm technology in the past, citing the raisin industry as an example. In 2000, a bumper harvest crashed prices and, with profits squeezed, farmers looked for a solution. With labour one of their biggest costs – 42 percent of production expenses on U.S. farms, on average – they started using a mechanical harvester adapted from a machine used by wine makers. By 2007, almost half of California's raisins were mechanically harvested and a labour force once numbering 50,000 had shrunk to 30,000.

As well as having an impact on the job market, the widespread adoption of agribots might bring changes at the supermarket. Lewis Holloway, who studies agriculture at the University of Hull, UK, says that robotic milking is likely to influence the genetics of dairy herds as farmers opt for 'robot-friendly' cows, with udder shape, and even attitudes, suited to automated milking. Similarly, he says, it's conceivable that agribots could influence what fruit or vegetable varieties get to the shops, since farmers may prefer to grow those with, say, leaf shapes that are easier for their robots to discriminate from weeds. Almost inevitably, these machines will eventually alter the landscape, too. The real tipping point for robot agriculture will come when farms are being designed with agribots in mind, says Salah Sukkarieh, a robotics researcher at the Australian Center for Field Robotics, Sydney. This could mean a return to smaller fields, with crops planted in grids rather than rows and fruit trees pruned into two-dimensional shapes to make harvesting easier. This alien terrain tended by robots is still a while away, he says 'but it will happen.'

Questions 14-17

Instructions to follow

- Do the following statements agree with the claims of the writer in Reading Passage 2? In boxes 14-17 on your answer sheet, write
- **YES** if the statement agrees with the claims of the writer
- **NO** if the statement contradicts the claims of the writer
- **NOT GIVEN** if it is impossible to say what the writer thinks about this

14 Governments should do more to ensure that food is generally affordable.

15 Farmers need to reduce the harm they do to the environmentally.

16 In the future, farmers are likely to increase their dependency on chemicals.

17 Farms in Europe and the US may find it hard to adapt to precision farming.

Questions 18-21

Instructions to follow

- Complete the sentences below. Choose ONE WORD ONLY from the passage.

18 In the future, agribots will provide.....to young plants.

19 Some machines will use chemicals or.....to get rid of unwanted plants.

20 It is the production of.....which currently uses most machinery on farms.

21 .....between machines such as tractors is making farming more efficient.

Questions 22-26

Instructions to follow

- Look at the following researchers (Questions 22-26) and the list of statements below. Match each researcher with the correct statement, A-H.

22 Simon Blackmore

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

23 Eldert van Henten

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

24 Linda Calvin and Philip Martin

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

25 Lewis Holloway

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

26 Salah Sukkarieh

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

List of Findings

A The use of automation might impact on the development of particular animal and plant species.

B We need to consider the effect on employment that increased automation will have.

C We need machines of the future to be exact, not more powerful.

D As farming becomes more automated the appearance of farmland will change.

E New machinery may require more investment than certain farmers can afford.

F There is a shortage of employees in the farming industry.

G There are limits to the environmental benefits of automation.

H Economic factors are often the driving force behind the development of machinery.

Section 3

Homer's Literary Legacy

A. Until the last tick of history's clock, cultural transmission meant oral transmission and poetry, passed from mouth to ear, was the principal medium of moving information across space and from one generation to the next. Oral poetry was not simply a way of telling lovely or important stories, or of flexing the imagination. It was, argues the classicist Eric Havelock, a "massive repository of useful knowledge, a sort of encyclopedia of ethics, politics, history and technology which the effective citizen was required to learn as the core of his educational equipment". The great oral works transmitted a shared cultural heritage, held in common not on bookshelves, but in brains. In India, an entire class of priests was charged with memorizing the Vedas with perfect fidelity. In pre-lslamic Arabia, people known as Rawis were often attached to poets as official memorizers.The Buddha's teachings were passed down in an unbroken chain of oral tradition for four centuries until they were committed to writing in Sri Lanka in the first century B.C.

B. The most famous of the Western tradition's oral works, and the first to have been systematically studied, were Homer's Odyssey and Iliad. These two poems – possibly the first to have been written down in the Greek alphabet – had long been held up as literary archetypes. However, even as they were celebrated as the models to which all literature should aspire, Homer's masterworks had also long been the source of scholarly unease. The earliest modern critics sensed that they were somehow qualitatively different from everything that came after – even a little strange. For one thing, both poems were oddly repetitive in the way they referred to characters. Odysseus was always "clever Odysseus". Dawn was always "rosy-fingered". Why would someone write that? Sometimes the epithets seemed completely off-key. Why call the murderer of Agamemnon "blameless Aegisthos"? Why refer to "swift-footed Achilles" even when he was sitting down? Or to "laughing Aphrodite" even when she was in tears? In terms of both structure and theme, the Odyssey and Iliad were also oddly formulaic, to the point of

predictability. The same narrative units – gathering armies, heroic shields, challenges between rivals – pop up again and again, only with different characters and different circumstances. In the context of such finely spun, deliberate masterpieces, these quirks* seemed hard to explain.

C. At the heart of the unease about these earliest works of literature were two fundamental questions: first, how could Greek literature have been born ex nihilo* with two masterpieces? Surely a few less perfect stories must have come before, and yet these two were among the first on record. And second, who exactly was their author? Or was it authors? There were no historical records of Homer, and no trustworthy biography of the man exists beyond a few self-referential hints embedded in the texts themselves.

D. Jean-Jacques Rousseau was one of the first modern critics to suggest that Homer might not have been an author in the contemporary sense of a single person who sat down and wrote a story and then published it for others to read. In his 1781 Essay on the Origin of Languages, the Swiss philosopher suggested that the Odyssey and Iliad might have been "written only in men's memories. Somewhat later they were laboriously collected in writing"- though that was about as far as his enquiry into the matter went.

E. In 1795, the German philologist Friedrich August Wolf argued for the first time that not only were Homer's works not written down by Homer, but they weren't even by Homer. They were, rather, a loose collection of songs transmitted by generations of Greek bards*, and only redacted* in their present form at some later date. In 1920, an eighteen-year-old scholar named Milman Parry took up the question of Homeric authorship as his Master's thesis at the University of California, Berkeley. He suggested that the reason Homer's epics seemed unlike other literature was because they were unlike other literature. Parry had discovered what Wood and Wolf had missed: the evidence that the poems had been transmitted orally was right there in the text itself. All those stylistic quirks, including the formulaic and recurring plot elements and the

bizarrely repetitive epithets -"clever Odysseus"and "gray-eyed Athena"- that had always perplexed readers were actually like thumbprints left by a potter: material evidence of how the poems had been crafted. They were mnemonic* aids that helped the bard(s) fit the meter and pattern of the line, and remember the essence of the poems.

F. The greatest author of antiquity was actually, Parry argued, just "one of a long tradition of oral poets that… composed wholly without the aid of writing". Parry realised that if you were setting out to create memorable poems, the Odyssey and the Iliad were exactly the kind of poems you'd create. It's said that cliches* are the worst sin a writer can commit, but to an oral bard, they were essential. The very reason that cliches so easily seep into our speech and writing – their insidious memorability – is exactly why they played such an important role in oral storytelling.The principles that the oral bards discovered as they sharpened their stories through telling and retelling were the same mnemonic principles that psychologists rediscovered when they began conducting their first scientific experiments on memory around the turn of the twentieth century. Words that rhyme are much more memorable than words that don't, and concrete nouns are easier to remember than abstract ones. Finding patterns and structure in information is how our brains extract meaning from the world, and putting words to music and rhyme is a way of adding extra levels of pattern and structure to language.

Questions 27-32

Instructions to follow

- Reading Passage 3 has six paragraphs, A-F.
- Which paragraph contains the following information?

27 the claim that the Odyssey and Iliad were not poems in their original form.

28 a theory involving the reinterpretation of the term 'author'

29 references to the fact that little is known about Homer's life

30 a comparison between the construction of Homer's poems and another art form

31 examples of the kinds of people employed to recall language

32 doubts regarding Homer's apparently inappropriate descriptions

Questions 33-34

Instructions to follow

- Choose **TWO** letters, A-E.

Which **TWO** of these points are made by the writer of the text about the Odyssey and the Iliad?

33 _____

A ○ B ○ C ○ D ○ E ○

34 _____

A ○ B ○ C ○ D ○ E ○

A They are sometimes historically inaccurate.

B It is uncertain which century they were written in.

C Their content is very similar.

D Later writers referred to them as ideal examples of writing.

E There are stylistic differences between them.

Questions 35-36

Instructions to follow

- Choose **TWO** letters, A-E.

Which **TWO** of the following theories does the writer of the text refer to?

35 _____

A ○ B ○ C ○ D ○ E ○

36 _____

A ○ B ○ C ○ D ○ E ○

A Homer wrote his work during a period of captivity.

B Neither the Odyssey nor the Iliad were written by Homer.

C Homer created the Odyssey and Iliad without writing them down.

D Homer may have suffered from a failing memory in later life.

E The oral and written versions of Homer's work may not be identical.

Questions 37-40

Instructions to follow

- Complete the summary below. Choose **ONE WORD ONLY** from the passage for each answer.

The importance of the spoken word and how words are remembered

Spoken poetry was once the means by which each ……37…….. of a particular culture or community could pass on its knowledge. Indeed, it has been suggested that it was the duty of a ……38…… to know poetry so they would be informed about subjects such as politics and history.

Psychologists now know that when people are trying to remember information, they may find it difficult to remember words that express ……39…… ideas. It is easier to remember words which sound similar or go together with……40……

IELTS Reading Test 6

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

Human Interference and Finches

A. Today, the quest continues. On Daphne Major-one of the most desolate of the Galápagos Islands, an uninhabited volcanic cone where cacti and shrubs seldom grow higher than a researcher's knee-Peter and Rosemary Grant have spent more than three decades watching Darwin's finch respond to the challenges of storms, drought and competition for food Biologists at Princeton University, the Grants know and recognize many of the individual birds on the island and can trace the birds' lineages hack through time. They have witnessed Darwin's principle in action again and again, over many generations of finches.

B. The Grants' most dramatic insights have come from watching the evolving bill of the medium ground finch. The plumage of this sparrow-sized bird ranges from dull brown to jet black. At first glance, it may not seem particularly striking, but among scientists who study evolutionary biology, the medium ground finch is a superstar. Its bill is a middling example in the array of shapes and sizes found among Galápagos finches: heftier than that of the small ground finch, which specializes in eating small, soft seeds, but petite compared to that of the large ground finch, an expert at cracking and devouring big, hard seeds.

C. When the Grants began their study in the 1970s, only two species of finch lived on Daphne

Major, the medium ground finch and the cactus finch. The island is so small that the researchers were able to count and catalogue every bird. When a severe drought hit in 1977, the birds soon devoured the last of the small, easily eaten seeds. Smaller members of the medium ground finch population, lacking the bill strength to crack large seeds, died out.

D. Bill and body size are inherited traits, and the next generation had a high proportion of big-billed individuals. The Grants had documented natural selection at work-the same process that, over many millennia, directed the evolution of the Galápagos' 14 unique finch species, all descended from a common ancestor that reached the islands a few million years ago.

E. Eight years later, heavy rains brought by an El Nino transformed the normally meager vegetation on Daphne Major. Vines and other plants that in most years struggle for survival suddenly flourished, choking out the plants that provide large seeds to the finches. Small seeds came to dominate the food supply, and big birds with big bills died out at a higher rate than smaller ones. 'Natural selection is observable,' Rosemary Grant says. 'It happens when the environment changes. When local conditions reverse themselves, so does the direction of adaptation.

F. Recently, the Grants witnessed another form of natural selection acting on the medium ground finch: competition from bigger, stronger cousins. In 1982, a third finch, the large ground finch, came to live on Daphne Major. The stout bills of these birds resemble the business end of a crescent wrench. Their arrival was the first such colonization recorded on the Galápagos in nearly a century of scientific observation. 'We realized,' Peter Grant says, 'we had a very unusual and potentially important event to follow.' For 20 years, the large ground finch coexisted with the medium ground finch, which shared the supply of large seeds with its bigger-billed relative. Then, in 2002 and 2003, another drought struck.

None of the birds nested that year, and many died out. Medium ground finches with large bills, crowded out of feeding areas by the more powerful large ground finches, were hit particularly hard.

G. When wetter weather returned in 2004, and the finches nested again, the new generation of the medium ground finch was dominated by smaller birds with smaller bills, able to survive on smaller seeds. This situation, says Peter Grant, marked the first time that biologists have been able to follow the complete process of an evolutionary change due to competition between species and the strongest response to natural selection that he had seen in 33 years of tracking Galápagos finches.

H. On the inhabited island of Santa Cruz, just south of Daphne Major, Andrew Hendry of McGill University and Jeffrey Podos of the University of Massachusetts at Amherst have discovered a new, man-made twist in finch evolution. Their study focused on birds living near the Academy Bay research station, on the fringe of the town of Puerto Ayora. The human population of the area has been growing fast-from 900 people in 1974 to 9,582 in 2001. Today Puerto Ayora is full of hotels and mai tai bars,' Hendry says. 'People have taken this extremely arid place and tried to turn it into a Caribbean resort.'

I. Academy Bay records dating back to the early 1960s show that medium ground finches captured there had either small or large bills. Very few of the birds had mid-size bills. The finches appeared to be in the early stages of a new adaptive radiation: If the trend continued, the medium ground finch on Santa Cruz could split into two distinct subspecies, specializing in different types of seeds. But in the late 1960s and early 70s, medium ground finches with medium-sized bills began to thrive at Academy Bay along with small and large-billed birds. The booming human population had introduced new food sources, including exotic plants and bird feeding stations stocked with rice. Billsize, once critical to the finches' survival, no longer made any difference. 'Now an intermediate

bill can do fine,' Hendry says.

J. At a control site distant from Puerto Ayora, and relatively untouched by humans, the medium ground finch population remains split between large- and small-billed birds. On undisturbed parts of Santa Cruz, there is no ecological niche for a middling medium ground finch, and the birds continue to diversify. In town, though there are still many finches, once-distinct populations are merging.

K. The finches of Santa Cruz demonstrate a subtle process in which human meddling can stop evolution in its tracks, ending the formation of new species. In a time when global biodiversity continues its downhill slide, Darwin's finches have yet another unexpected lesson to teach. 'If we hope to regain some of the diversity that's already been lost/ Hendry says, 'we need to protect not just existing creatures, but also the processes that drive the origin of new species.

Questions 1-4

Instructions to follow

- Complete the table below.
- Choose NO MORE THAN TWO WORDS from Reading Passage 1 for each answer.
- Write your answers in boxes 1-4 on your answer sheet.

Year	Climate	Finch's condition
1977	1 ……	small-beak birds failing to survive, without the power to open 2 ……

1985	3 ..... brought by El Nino	big-beak birds dying out, with 4 ..... as the main food resource

Questions 5-8

Instructions to follow

- Complete the following summary of the paragraphs of Reading Passage 1.
- Using NO MORE THAN TWO WORDS from the Reading Passage for each answer.
- Write your answers in boxes 5-8 on your answer sheet.

On the remote island of Santa Cruz, Andrew Hendry and Jeffrey Podos conducted a study on reversal of 5 ..... due to human activity. In the early 1960s medium ground finches were found to have a larger or smaller beak. But in the late 1960s and early 70s, finches with 6 ..... flourished. The study speculates that it is due to the growing 7 ..... who brought in alien plants with intermediate-size seeds into the area and the birds ate 8 ..... sometimes.

Questions 9-13

Instructions to follow

- Do the following statements agree with the claims of the writer in Reading Passage 1?
  In boxes 9-13 on your answer sheet, write
  TRUE if the statement is true
  FALSE if the statement is false
  NOT GIVEN if the information is not given in the passage

9 Grants' discovery has questioned Darwin's theory.

10 The cactus finches are less affected by food than the medium ground finch.

11 In 2002 and 2003, all the birds were affected by the drought.

12 The discovery of Andrew Hendry and Jeffrey Podos was the same as that of the previous studies.

13 It is shown that the revolution in finches on Santa Cruz is likely a response to human intervention.

Section 2

Instructions to follow

- You should spend 20 minutes on Questions 14-26 which are based on Reading Passage 2.

Electronic Equipment's and Flight

Mobiles are barred, but passengers can lap away on their laptops to their hearts' content. Is one really safer than the other? In the US, a Congressional subcommittee grilled airline representatives and regulators about the issue last month. But the committee heard that using cellphones in planes may indeed pose a risk albeit a slight one. This would seem to vindicate the treatment of Manchester oil worker Neil Whitehouse, who was sentenced last summer to a year in jail by a British court for refusing to turn off his mobile phone on a flight home from Madrid. Although he was only typing a message to be sent on landing, not actually making a call, the court decided that hems putting the flight at risk.

A. The potential for problems is certainly there. Modern airliners are packed with electronic devices that control the plane and handle navigation and communications. Each has to meet stringent safeguards to make sure it doesn't emit radiation that would interfere with other devices in the plane-standards that passengers' personal electronic devices don't necessarily meet. Emissions from inside the plane could also interfere with sensitive antennae on the fixed exterior.

B. But despite running a number of studies, Boeing, Airbus and various government agencies haven't been able to find clear evidence of problems caused by personal electronic devices, including mobile phones. "We've done our own studies. We've found cellphones

actually have no impact on the navigation system," says Maryanne Greczyn, a spokeswoman for Airbus Industries of North America in Herndon, Virginia, Not do they affect other critical systems, she says The only impact Airbus found? "Sometimes when a passenger is starting or finishing a phone call, the pilot hears a wry slight beep in the headset," she says.

C. The best evidence yet of a problem comes from a report released this year by Britain's Civil Aviation Authority. Its researchers generated simulated cellphone transmissions inside two Boeing aircraft. They concluded that the transmissions could create signals at a power and frequency that would not affect the latest equipment, but exceeded the safety threshold established in 1984 and might, therefore, affect some of the older equipment on board. This doesn't mean "mission critical" equipment such as the navigation system and flight controls. But the devices that could be affected, such as smoke detectors and fuel level indicators, could still create serious problems for the flight crew if they malfunction.

D. Many planes still use equipment certified to the older standards, says Dan Hawkes, head of avionics at the CAA's Safely Regulation Croup. The CAA study doesn't prove the equipment will actually fail when subjected to the signals but does show there's a danger. "We've taken some of the uncertainty out of these beliefs," he says Another study later this year will see if the cellphone signals actually cause devices to fail.

E. In 1996, RTCA, a consultant hired by the Federal Aviation Administration in the US to conduct tests, determined that potential problems from personal electronic devices were "low". Nevertheless, it recommended a ban on their use during "critical" periods of flight, such as take-off and landing. RTCA didn't actually test cellphones, but nevertheless recommended their wholesale ban on flights, But if "better safe than sorry" is the current policy, it's applied inconsistently, according to Marshall Cross, the chairman of Mega

Wave Corporation, based in Boylston, Massachusetts. Why are cellphones outlawed when no one considers a ban on laptops? “It’s like most things in life. The reason is a little bit technical, a little bit economic and a little bit political,” says Cross.

F. The company wrote a report for the FAA in 1998 saying it is possible to build an on-board system that can detect dangerous signals from electronic devices. But Cross’s personal conclusion is that mobile phones aren’t the real threat. “You’d have to stretch things pretty far to figure out how a cellphone could interfere with a plane’s systems,” he says. Cellphones transmit in ranges of around 400, 800 or 1800 megahertz. Since no important piece of aircraft equipment operates at those frequencies, the possibility of interference is very low, Cross says. The use of Computers and electronic game systems is much more worrying, lie says. They can generate very strong signals at frequencies that could interfere with plane electronics, especially if a mouse is attached {the wire operates as an antenna or if their built-in shielding is somehow damaged. Some airlines are even planning to put sockets for laptops in seatbacks.

G. There’s fairly convincing anecdotal evidence that some personal electronic devices have interfered with systems. Aircrew on one flight found that the autopilot was being disconnected, and narrowed the problem down to a passenger’s portable computer. They could actually watch the autopilot disconnect when they switched the computer on. Boeing bought the computer, took it to the airline’s labs and even tested it on an empty flight. But as with every other reported instance of interference, technicians were unable to replicate the problem.

H. Some engineers, however, such as Bruce Donham of Boeing, say that common sense suggests phones are more risky than laptops. “A device capable of producing a strong emission is not as safe as a device which does not have any intentional emission,” lie says. Nevertheless, many experts think it’s illogical that cellphones are prohibited when

computers aren't. Besides, the problem is more complicated than simply looking at power and frequency. In the air, the plane operates in a soup of electronic emissions, created by its own electronics and by ground-based radiation. Electronic devices in the cabin-especially those emitting a strong signal-can behave unpredictably, reinforcing other signals, for instance, or creating unforeseen harmonics that disrupt systems.

I. Despite the Congressional subcommittee hearings last month, no one seems to be working seriously on a technical solution that would allow passengers to use their phones. That's mostly because no one -besides cellphone users themselves-stands to gain a lot if the phones are allowed in the air. Even the cellphone companies don't want it. They are concerned that airborne signals could cause problems by flooding a number of the networks' base stations at once with the same signal. This effect, called bigfooting, happens because airborne cellphone signals tend to go to many base stations at once, unlike land calls which usually go to just one or two stations. In the US, even if FAA regulations didn't prohibit cellphones in the air, Federal Communications Commission regulations would.

J. Possible solutions might be to enhance airliners' electronic insulation or to fit detectors which warned flight staff when passenger devices were emitting dangerous signals. But cross complains that neither the FAA, the airlines nor the manufacturers are showing much interest in developing these. So, despite Congressional suspicions and the occasional irritated (or jailed) mobile user, the industry's "better safe than sorry" policy on mobile phones seems likely to continue. In the absence of firm evidence that the international airline industry is engaged in a vast conspiracy to overcharge its customers, a delayed phone call seems a small price to pay for even the tiniest reduction in the chances of a Plane Crash. But you'll still be allowed to use your personal computer during a flight. And while that remains the case, airlines can hardly claim that logic has prevailed.

Questions 14-17

Instructions to follow

- Complete the following summary of the paragraphs of Reading Passage.
- Using NO MORE THAN THREE WORDS from the Reading Passage for each answer.
- Write your answers in boxes 14-17 on your answer sheet.

The would-be risk surely exists, since the avionic systems on modern aircraft are used to manage flight and deal with 14..... Those devices are designed to meet the safety criteria which should be free from interrupting 15..... or interior emission. The personal use of a mobile phone may cause the sophisticated 16..... outside of the plane to dysfunction. Though definite interference in piloting devices has not been scientifically testified, the devices such as those which detect 17..... or indicate fuel load could be affected.

Questions 18-22

Instructions to follow

- Use the information in the passage to match the organization (listed A-E) with opinions or deeds below.
- Write the appropriate letters A-E in boxes 18-22 on your answer sheet.

A British Civil Aviation Authority

B Maryanne Greczyn

C RTCA

D Marshall Cross

E Boeing company

18 Mobile usages should be forbidden in specific flight.

A ○ B ○ C ○ D ○ E ○

19 Computers are more dangerous than cell phones.

A ○ B ○ C ○ D ○ E ○

20 Finding that the mobile phones pose little risk on flight's navigation devices.

A ○ B ○ C ○ D ○ E ○

21 The disruption of laptops is not as dangerous as cell phones.

A ○ B ○ C ○ D ○ E ○

22 The mobile signal may have an impact on earlier devices.

A ○ B ○ C ○ D ○ E ○

Questions 23-26

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 2?
  In boxes 23-26 on your answer sheet, write
  TRUE if the statement is true
  FALSE if the statement is false
  NOT GIVEN if the information is not given in the passage

23 Almost all scientists accept that cellphones have higher emission than that of personal computers.

24 Some people believe that radio emission will interrupt the equipment on the plane.

25 The signal interference-detecting device has not yet been developed because they are in priority for neither administrative department nor offer an economic incentive.

26 FAA initialed open debate with Federal Communications Commission.

Section 3

Instructions to follow

- You should spend 20 minutes on Questions 27-40 which are based on Reading Passage 3.

Resolving Conflict through Communication

Section A

As far back as Hippocrates's time (460-370 B.C.), people have tried to understand other people by characterizing them according to personality type or temperament. Hippocrates believed there were four different body fluids that influenced four basic types of temperament. His work was further developed 500 years later by Galen. These days there is any number of self-assessment tools that relate to the basic descriptions developed by Galen, although we no longer believe the source to be the types of body fluid that dominate our systems.

Section B

The values in self-assessments that help determine personality style. Learning styles, communication styles, conflict-handling styles, or other aspects of individuals is that they help depersonalize conflict in interpersonal relationships. The depersonalization occurs when you realize that others aren't trying to be difficult, but they need different or more information than you do. They're not intending to be rude: they are so focused on the task they forget about greeting people. They would like to work faster but not at the risk of damaging the relationships needed to get the job done. They understand there is a job to do. But it can only be done right with the appropriate information, which takes time to collect. When used appropriately, understanding communication styles can help resolve

conflict on teams. Very rarely are conflicts true personality issues. Usually, they are issues of style, information needs, or focus.

Section C

Hippocrates and later Galen determined there were four basic temperaments: sanguine, phlegmatic, melancholic and choleric. These descriptions were developed centuries ago and are still somewhat apt, although you could update the wording. In today's world, they translate into the four fairly common communication styles described below:

Section D

The sanguine person would be the expressive or spirited style of communication. These people speak in pictures. They invest a lot of emotion and energy in their communication and often speak quickly. Putting their whole body into it. They are easily sidetracked onto a story that may or may not illustrate the point they are trying to make. Because of their enthusiasm, they are great team motivators. They are concerned about people and relationships. Their high levels of energy can come on strong at times and their focus is usually on the bigger picture, which means they sometimes miss the details or the proper order of things. These people find conflict or differences of opinion invigorating and love to engage in a spirited discussion. They love change and are constantly looking for new and exciting adventures.

Section E

Tile phlegmatic person – cool and persevering – translates into the technical or systematic communication style. This style of communication is focused on facts and technical details. Phlegmatic people have an orderly methodical way of approaching tasks, and their focus is very much on the task, not on the people, emotions, or concerns that the task may evoke. The focus is also more on the details necessary to accomplish a task.

Sometimes the details overwhelm the big picture and focus needs to be brought back to the context of the task. People with this style think the facts should speak for themselves, and they are not as comfortable with conflict. They need time to adapt to change and need to understand both the logic of it and the steps involved.

Section F

Tile melancholic person who is softhearted and oriented toward doing things for others translates into the considerate or sympathetic communication style. A person with this communication style is focused on people and relationships. They are good listeners and do things for other people – sometimes to the detriment of getting things done for themselves. They want to solicit everyone's opinion and make sure everyone is comfortable with whatever is required to get the job done. At times this focus on others can distract from the task at hand. Because they are so concerned with the needs of others and smoothing over issues, they do not like conflict. They believe that change threatens the status quo and tends to make people feel uneasy, so people with this communication style, like phlegmatic people, need time to consider the changes in order to adapt to them.

Section G

The choleric temperament translates into the bold or direct style of communication. People with this style are brief in their communication – the fewer words the better. They are big-picture thinkers and love to be involved in many things at once. They are focused on tasks and outcomes and often forget that the people involved in carrying out the tasks have needs. They don't do detail work easily and as a result, can often underestimate how much time it takes to achieve the task. Because they are so direct, they often seem forceful and can be very intimidating to others. They usually would welcome someone challenging them. But most other styles are afraid to do so. They also thrive on change,

the more the better.

Section H

A well-functioning team should have all of these communications styles for true effectiveness. All teams need to focus on the task, and they need to take care of relationships in order to achieve those tasks. They need the big picture perspective or the context of their work, and they need the details to be identified and taken care of for success. We all have aspects of each style within us. Some of us can easily move from one style to another and adapt our style to the needs of the situation at hand-whether the focus is on tasks or relationships. For others, a dominant style is very evident, and it is more challenging to see the situation from the perspective of another style.

The work environment can influence communication styles either by the type of work that is required or by the predominance of one style reflected in that environment. Some people use one style at work and another at home. The good news about communication styles is that we have the ability to develop flexibility in our styles. The greater the flexibility we have, the more skilled we usually are at handling possible and actual conflicts. Usually, it has to be relevant to us to do so, either because we think it is important or because there are incentives in our environment to encourage it. The key is that we have to want to become flexible with our communication style. As Henry Ford said, “Whether you think you can or you can’t, you’re right!”

Questions 27-34

Instructions to follow

- Reading Passage 3 has eight sections A-H. Choose the correct heading for each section from the list of headings below.
- Write the correct number i-x in boxes 27-34 on your answer sheet.

List of Headings

i Different personality types mentioned
ii recommendation of combined styles for group
iii Historical explanation of understanding personality
iv A lively and positive attitude person depicted
v A personality likes a challenge and direct communication
vi different characters illustrated
vii Functions of understanding communication styles
viii Cautious and considerable person cited
ix Calm and Factual personality illustrated
x Self-assessment determines one's temperament

27 Section A
28 Section B
29 Section C
30 Section D
31 Section E
32 Section F
33 Section G
34 Section H

Questions 35-39

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 3. In boxes 35-39 on your answer sheet, write
  TRUE if the statement is true
  FALSE if the statement is false
  NOT GIVEN if the information is not given in the passage

35 it is believed that sanguine people do not like variety

36 Melancholic and phlegmatic people have similar characteristics

37 It is the sanguine personality that needed most in the workplace.

38 It is possible for someone to change a type of personality.

39 work surrounding can affect which communication style is the most effective.

Question 40

Instructions to follow

- Choose the correct letter, A, B, C or D.
- Write your answers in box 40 on your answer sheet.

40 The author thinks self-assessment tools can be able to

A ○ assist to develop one's personality in a certain scenario.

B ○ help to understand colleagues and resolve problems

C ○ improve the relationship with the boss of the company

D ○ change others behaviour and personality

IELTS Reading Test 7

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

Reflecting On The Mirror

In all likelihood the first mirrors would have simply been pools of water that reflected the image of the one who looked into it. Nature's mirror, while cheap and readily accessible, must have also been quite frustrating with the slightest disturbance on the surface of the water making it difficult to see clearly. It is not altogether clear when the first man-made mirrors were produced but mirrors made of brass are mentioned in the Bible, and after that mirrors of bronze were in common use among the ancient Egyptians, Romans and Greeks. In addition to bronze, the Greeks and Romans experimented with polished silver to produce simple mirrors.

Crude forms of glass mirrors were first made in Venice in 1300. Small sheets of glass were cut from disks made by a spinning process. When this glass was backed with a covering of tin or lead, a 'mirror' resulted. During the early periods of their development, mirrors were rare and expensive. France had glass factories but only in Venice, Italy was the secret of mirror foiling know n. The chemical process of coating a glass surface with metallic silver was discovered by German chemist Justus von Liebig in 1835, and this advance inaugurated the modern techniques of mirror making.

By the end of the 17th century mirrors were made in Britain and the manufacture of mirrors developed subsequently into an important industry in many other European countries. People wore them in their hats, or set them like jewels in their rings. Society glittered and shone like the firmament. A little later on, America was gripped by the mirror craze, only this time they wore interested in larger mirrors. In house after house in residential districts and eastern cities there could be found one long mirror after another placed between two front parlour windows.

In the manufacture of mirrors today, plate glass is cut to size, and all blemishes are removed by polishing with rouge. The glass is scrubbed and flushed with a reducing solution before silver is applied. The glass is then placed on a hollow, cast-iron tabletop, covered with felt, and kept warm by steam. A solution of silver nitrate is poured on the glass and left undisturbed for about 1 hour. The silver nitrate is reduced to a metallic silver and a lustrous deposit of silver gradually forms. The deposit is dried, coated with shellac, and painted. Most present-day mirrors therefore, are made up of these layers. Glass is used on top because it is smooth, clear, and protects the reflective surface. A mirror needs to be very smooth in order for the best reflection to occur.

Mirrors may have plane or curved surfaces. A curved mirror is concave or convex depending on whether the reflecting surface faces toward the centre of the curvature or away from it. Curved mirrors in ordinary usage have surfaces of varying shapes. Perhaps the most common is spherical. Spherical mirrors produce images that are magnified or reduced – exemplified, by mirrors for applying facial makeup and by rear-view mirrors for vehicles. Cylindrical mirrors are another common type of shape. These focus a parallel beam flight to a linear focus. A paraboloidal mirror is one which is often used to focus parallel rays to a sharp focus, as in a telescope mirror, or to produce a parallel beam from

a source at its focus, such as a searchlight. A less common but useful shape is the ellipsoidal. Such a mirror will reflect light from one of its two focal points to the other.

While the mirror is the focus of the production, the frame plays an important albeit slightly lesser role as the anchor by which the mirror is affixed to its proper place. From the late 17th century onward, mirrors and their frames played an increasingly important part in the decoration of rooms. Complementing the shiny reflective mirror, the early frames were usually of ivory, silver, ebony, or tortoiseshell or were veneered with walnut, olive, and laburnum. Needlework and bead frames were also to be found. Craftsmen such as Grinling Gibbons often produced elaborately carved mirror frames to match a complete decorative ensemble. The tradition soon became established of incorporating a mirror into the space over the mantelpiece; many of the early versions of these mirrors, usually known as overmantels, were enclosed in glass frames. The architectural structure of which these mirrors formed a part became progressively more elaborate. Focusing heavily on the effect created by mirrors, 18th century designers such as the English brothers Robert and James Adam created fireplace units stretching from the hearth to the ceiling. Oil the whole, mirror frames reflected the general taste of the time and were often changed to accommodate alterations in taste – frames usually being cheaper and hence more easily replaced than the mirror itself.

By the end of the 18th century, painted decoration largely supplanted carving on mirrors, the frames being decorated with floral patterns or classical ornaments. At the same time the French started producing circular mirrors. Usually surrounded by a neoclassical gilt frame that sometimes supported candlesticks, these mirrors enjoyed great popularity well into the 19thImproved skill in mirror making also made possible die introduction of the cheval glass, a freestanding full-length mirror, supported on a frame with four feet. These were mainly used for dressing purposes, though occasionally they had a decorative

function. New, cheaper techniques of mirror production in the 19th century led to a great proliferation in their use. Not only were they regularly incorporated into pieces of furniture – such as wardrobes and sideboards – they were also used in everything from high-powered telescopes to decorative schemes in public places. Their popularity continues today. Through them, infants are able to develop an awareness of their individuality through 'mirror games'. This type of emotional reflection stimulates babies to move various parts of their body and even promotes verbal utterances.

Questions 1-5

Instructions to follow

- Do the following statements reflect the claims of the writer in Reading Passage? In boxes 1-5 on your answer sheet, write

TRUE	if the statement agrees with the information
FALSE	if the statement contradicts the information
NOT GIVEN	if there is no information on this

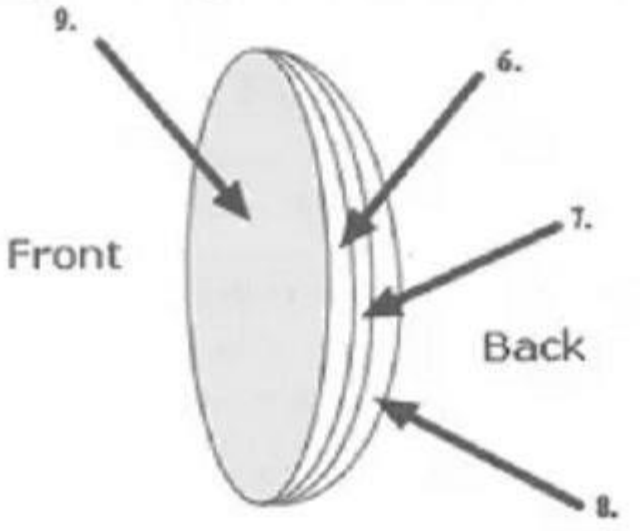
1. The Creeks arid Egyptians used polished silver to make mirrors.
2. The first man-made mirrors were made of bronze.
3. Only the wealthy could afford the first mirrors.
4. The first mirrors in America were used for decoration.
5. Spherical mirrors are commonly used in cars.

Questions 6 – 9

Instructions to follow

- Complete the labels on Diagram A below.
- Write the correct letter A-J in boxes 6-9 on your answer sheet.

Diagram A: Magnified side-view of a mirror



A rouge
B cast iron
C felt
D steam
E shellac
F glass
G metal
H silver nitrate paint
I reducing solution

6 _____

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

7 _____

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

8 _____

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

9 _____

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

Questions 10-13

Instructions to follow

- Choose the correct letter, A, B, C or D.
- Write your answers in boxes 10-13 on your answer sheet.

10 The type of mirror used for looking at the stars is

A ○ paraboloidal.
B ○ spherical.
C ○ cylindrical.
D ○ ellipsoidal.

11 17th century craftsmen

A ○ blended mirror frames well with other household furniture.
B ○ hung mirrors above fireplaces.
C ○ used mirror frames as a focus for home decoration.
D ○ established floral patterns as a standard for mirror frames.

12 18th century craftsmen

- A ○ designed furniture which highlighted the unique properties of mirrors.
- B ○ experimented largely with mirror frames made of ebony and ivory.
- C ○ built spherically-shaped minors.
- D ○ experimented with ceiling mirrors around fireplaces.

13 19th century craftsmen

- A ○ used mirrors less than any previous time in history.
- B ○ introduced mirrors as learning tools.
- C ○ used mirrors extensively in bedroom furniture.
- D ○ etched designs into mirrors.

Section 2

Instructions to follow

- You should spend 20 minutes on Questions 14-26 which are based on Reading Passage 2.

Effort And Science To Win

Winning nowadays is not only a question of disciplined training: The triumph of victory today involves the collaboration of several medical specialists who combine their particular knowledge in an effort to help each athlete to reach their potential.

A. In Mexico, the Medicine Direction and Applied Sciences of the National Commission of Deporte analyse all aspects of sports science from the role of the auditory system in sporting achievement to the power of the mind and its role in the ability to win. Everything, it seems, is open to scrutiny. Recently, the focus has been evaluating the visual acuity of cyclists and long-distance runners but they also focus on the more traditional areas of sports research, especially psychology, nutrition, anthropology, biochemistry and odontology[1]. From budding child athletes as young as 9 to the more mature-aged sportsperson, the facility at Deporte has attracted some of Mexico's most famous sporting and Olympic hopefuls.

B. "The study of elite athletes is now more scientific than ever," says doctor Francisco Javier Squares, "after each competition, athletes are exposed to vigorous medical examinations and follow-up training in order to help the US arrive at a program that is tailor-made. "The modern athlete has become big business, no longer is there a one-size-fits-all approach. For example, in the past two people, both 1.70 meters tall and weighing 70 kilograms would have been given the same program of athletic conditioning – now this idea is

obsolete. It may be that the first individual has 35 kgs of muscle and 15 kgs of fat and the other person, although the same height and weight may have 30 kgs of muscle and 20 kgs of fat. Through detailed scientific evaluation here at our facility in Deportee," says Squares, "… we are able to construct a very specific training programme for each individual."

C. Whereas many countries in the world focus on the elevation of the glorious champion, the Mexican Olympic team takes a slightly different approach. Psychologically speaking an athlete must bring to his endeavour a healthy dose of humility. As Squares said, "When an athlete wins for Mexico, it is always as a result of a combined team effort with many people operating behind the scenes to realise the sporting achievement. When an athlete stands on the dais, it is because of great effort on the part of many."

D. As is often the case in some poorer countries, sportsmen and women are stifled in their development due to budgetary constraints. However, this has not been a factor for consideration with the team in Mexico. The Mexican government has allocated a substantial sum of money for the provision of the latest equipment and laboratories for sports research. In fact, the quality of Mexico's facilities puts them on par with countries like Italy and Germany in terms of access to resources. One example of sophisticated equipment used at the Mexican facility is the hyperbaric chamber. This apparatus is used to enhance oxygen recovery after a vigorous physical workout. Says Squares, "When you breathe the air while inside a hyperbaric chamber the natural state of the oxygen does not change. Green plants produced oxygen; modern technology just increases the air pressure. This does not change the molecular composition of oxygen. Increased pressure just allows oxygen to get into tissues better. Due to our purchase of the hyperbaric chamber, athletes are able to recover from an intense workout in a much shorter space of time. We typically use the chamber for sessions of 45 to 60 minutes two or three times per week."

E. When pushed to the limit, the true indicator of fitness is not how hard the heart operates, but how quickly it can recover after an extreme workout. Therefore, another focus area of study for the team in Mexico has been the endurance of the heart. To measure this recovery rate, an electroencephalograph (EEG) is used. The EEG enables doctors to monitor the brainwave activity from sensors placed on the scalp. Athletes exert intense effort for a sustained period after which they are given time to rest and recover. During these periods between intense physical exertion and recovery, doctors are able to monitor any weaknesses in the way the heart responds. The CCG has had a big impact on our ability to measure the muscular endurance of the heart.

F. In 1796, the life expectancy of a human being was between 25 and 36 years, in 1886 that number basically doubled to between 45 and 50. In 1996, the life expectancy of an average Mexican stood at around 75 years. People are living longer and this is due in large part to the advances of modern science. It is not all sophisticated medical equipment that is playing a part; although lesser in impact, basic advances in engineering are also greatly assisting. Take, for example, a professional tennis player. In the past, most tennis players' shoes were constructed with fabric and a solid rubber sole. These shoes were of poor construction and resulted in hip and foot injuries. Today the technology of shoe construction has radically changed. Now some shoes are injected with silicone and made of more comfortable, ergonomic[1] construction. This has helped not only the elite but also the recreational sportsperson and thus, helps in the preservation of the human body.

[1] objects designed to be better adapted to the shape of the human body

Questions 14 -17

Instructions to follow

- The passage has eight paragraphs labelled, A-F. Which paragraph contains the following information?
- Write the correct letter A-F in boxes 14-17 on your answer sheet.
- NB You may use any letter more than once.

14 the natural process of oxygen production

A ○ B ○ C ○ D ○ E ○ F ○

15 standard after-competition procedure

A ○ B ○ C ○ D ○ E ○ F ○

16 the areas of study undertaken to improve athletic performance

A ○ B ○ C ○ D ○ E ○ F ○

17 the Mexican viewpoint on winning

A ○ B ○ C ○ D ○ E ○ F ○

Questions 18 -20

Instructions to follow

- Choose the correct letter, A, B, C or D.
- Write your answers next to 18-20 on your answer sheet.

18 The hyperbaric chamber

A ○ helps athletes to breathe more easily.

B ○ increases the level of oxygen an athlete breathes.

C ○ decreases the pressure of the oxygen for Mexican athletes.

D ○ speeds up recovery time for athletes.

19 The electroencephalograph (EEC)

- A measures how fast brainwaves move during exercise.
- B helps doctors to determine heart problems.
- C measures how hard the heart works during exercise.
- D strengthens the heart muscle in athletes.

20 The life-span of individuals in Mexico has increased due to

- A medical improvements.
- B more committed doctors.
- C better-made sporting equipment.
- D advances in ergonomics.

Questions 21-26

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 2?
  In boxes 21-26 on your answer sheet write
  TRUE if the statement agrees with the information
  FALSE if the statement contradicts the information
  NOT GIVEN if there is no information on this

21 There are limits to the level of sporting enquiry.

22 Specific athletic programs differ mostly between men and women.

23 Mexico and Germany have similar sporting resources.

24 Lack of money is what stops athletic improvement in some poor countries.

25 Wealthy countries enjoy greater athletic success.

26 Mexican athletes have the support of their government.

Section 3

Instructions to follow

- You should spend 20 minutes on Questions 27-40 which are based on Reading Passage 3.

Fuelling The Future

A. The world's 750 million motor vehicles emit well over 900 million metric tonnes of carbon dioxide each year. Traffic-related air pollution has been responsible for 6% of deaths per year and is associated with certain forms of leukaemia, inflammatory lung diseases, increased cardiovascular disease, low birth-weight babies and male infertility. It stands to reason that tackling traffic-related air pollution should be high on any government's list of priorities. Thus, in an attempt to minimise this situation many governments around the world have been looking at ways to implement alternative fuel sources. The most widely accepted way of doing this is to replace the crude oil that our vehicles currently run on with renewable, 'environmentally friendly' One serious contender put forward as a solution to the pollution problem is ethanol. Ethanol is a type of alcohol made by fermenting plant material. Water and organic matter from the plants including com, sorghum, sugar cane and wood are mixed together and fermented to make ethanol.

B. After fermentation, there are three layers remaining. The first is water and small particles of grain and alcohol. It takes on a syrup consistency. The second layer is the remaining grain, which is 17 per cent dry matter. The third layer is the actual ethanol – a colourless, volatile, flammable liquid. It is the only layer sold and accounts for exactly one-third of the total dry matter used for its production. There are three primary ways that it is used as a fuel for transportation: as a blend of 10 per cent ethanol with 90% unleaded fuel (E10); as a component of reformulated gasoline and; as a primary fuel with 85 parts of

ethanol blended with 15 parts of unleaded fuel (E-85). In the 1800s in the USA, it was first used as lamp fuel. Later on, due to skyrocketing oil prices in the 1970s, E10 was produced as a type of 'fuel-extender' for vehicles with E-85 being produced in the 1990s. Brazil has also used ethanol-blended fuels. Like America, the high prices in the 1970s prompted a government mandate to produce vehicles which could be fuelled by pure ethanol Today there are more than 4,2 million ethanol-powered vehicles in Brazil (40 per cent passenger-carrying) which consume 4 billion gallons of ethanol annually. Today, Brazil is the largest transportation ethanol fuel market in the world.

C. Given that Ethanol is made from a variety of plant substances when it is used in fuel production, it increases the monetary value of feed grains grown by farmers. In fact, in the USA, the largest ethanol consuming nation in the world, ethanol production adds £4.5 billion to the farm economy every year. According to the United States Department of Agriculture, ethanol production adds 30 cents to the value of a bushel of corn. Another of its benefits, according to Brian Keating, deputy chief of Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) is that a 10% ethanol blend (E10) would reduce greenhouse gas emissions by 2 to 5% over the full lifecycle of ethanol production and consumption. Said Keating, "The precise benefits depend on specific factors in the production cycle. An important component of which is the energy source used by the ethanol factory. If it's being powered by coal or oil, there are obviously associated with greenhouse gas emissions." In America, The Clean Air Act of 1990 and the National Energy Policy Act of 1992 have both created new market opportunities for a cleaner, more efficient fuels with many state governments in America's Mid-west purchasing fleet vehicles capable of running on E-85 fuels.

D. Although it makes a good fuel, some drawbacks have been documented. The economics of ethanol production are improving as the technology improves but ethanol has two

problems: It does not explode like gasoline, and it can absorb water, which can cause oxidation, rust and corrosion. The claims of possible damage to vehicles from the use of ethanol blends above 10% have therefore attracted considerable negative publicity. Compared to diesel – the standard fuel in the heavy moving industry – ethanol is known to have a lower energy content so ethanol trucks require larger fuel tanks to achieve the same range as a diesel-powered vehicle. In Australia, a government review' into the impacts of a 20% ethanol blend on vehicles found the information to be insufficient or conflicting but did identify a number of problems such as the possible perishing and swelling of elastomeric and plastic materials in fuel systems. Stakeholders in the motor vehicle industry have slated that warranties on motor vehicles and pump dispensing equipment could be at risk with the use of blends above 10% ethanol. Principle economist for the Australian Bureau of Agriculture Andrew Dickson points out that the money sugarcane growers get for their cane is not determined by the domestic consumption or domestic demand for ethanol, it is entirely determined by the world sugar market and the world trade in molasses He believes that the only way the sugar industry' can benefit from the existence of an ethanol industry is if they invest in the ethanol industry. "The sugar producer does not get any more money for their molasses so what incentive do they have to produce any more?." The cost of production also represents some challenges.

E. In Australia, fuel ethanol costs around 70 cents per litre compared with around 35 cents per litre for unleaded petrol. In America, one report revealed that even with government assistance, ethanol is dose to 35 per cent more than the price of diesel. Consequently, the production of ethanol requires government assistance to be competitive. A recent study by the Australian Bureau of Agricultural and Resource Economies found that without assistance, large-scale production of ethanol would not be commercially viable in Australia. Regardless of whether the Australian sugar industry will benefit from a

mandated 10% ethanol mix, the expansion of ethanol production would certainly lead to increased economic activity in farming areas. It is inevitable that some expansion would be at the expense of existing industry. If ethanol becomes more popular, there will soon be more plants producing it. This means there will be a need for workers for the plants. The American National Ethanol Vehicle Coalition (NBVC) projects that employment will be boosted by 200,000 jobs and the balance of trade will be improved by over $2. The future of ethanol looks promising, for better or worse ethanol looks to be a serious contender for tomorrow's fuel.

Questions 27-31

Instructions to follow

- Do the following statements agree with the claims of the writer in Reading Passage 2?
  In boxes 27-31 on your answer sheet, write
  YES if the statement reflects the claims of the writer
  NO if the statement contradicts the claims of the writer
  NOT GIVEN if it is impossible to say what the writer thinks about this

27 The need to control air pollution is why ethanol came into use.

28 Brazil uses more ethanol for transportation than America.

29 Select food crops become more expensive due to ethanol production

30 The Australian sugar industry will benefit from the production of ethanol.

31 Primary ethanol (E-85) has been extensively tested in Australia.

Questions 32-35

Instructions to follow

- Look at the following list of descriptions (Questions 32-35) and list of fuel types below.
- Match each description of the fuel type.
- Write the correct letter A-D in boxes 32-35 on your answer sheet.
- NB You may use any letter more than once.

32 costs about half the price of ethanol

A ○ B ○ C ○ D ○

33 reacts poorly with some metals

A ○ B ○ C ○ D ○

34 is the reason why trucks have been fitted with larger fuel tanks

A ○ B ○ C ○ D ○

35 commonly used in the trucking industry

A ○ B ○ C ○ D ○

A regular gasoline

B unleaded gasoline

C ethanol

D diesel

Question 36-40

Instructions to follow

- Write the appropriate letters A-D in boxes 36-40 on your answer sheet.

A Australia only

B America only

C both Australia and America

D neither Australia nor America

36 makes ethanol out of sugar cane

A ○ B ○ C ○ D ○

37 uses more ethanol than any other country in the world.

A ○ B ○ C ○ D ○

38 receives government assistance for ethanol production.

A ○ B ○ C ○ D ○

39 proved ethanol production is costly.

A ○ B ○ C ○ D ○

40 their government bought ethanol-friendly cars.

A ○ B ○ C ○ D ○

IELTS Reading Test 8

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

BAKELITE -The Birth of Modern Plastics

In 1907, Leo Hendrick Baekeland, a Belgian scientist working in New York, discovered and patented a revolutionary new synthetic material. His invention, which he named 'Bakelite', was of enormous technological importance, and effectively launched the modern plastics industry.

The term 'plastic' comes from the Greek plassein, meaning 'to mould'. Some plastics are derived from natural sources, some are semi-synthetic (the result of chemical action on a natural substance), and some are entirely synthetic, that is, chemically engineered from the constituents of coal or oil. Some are 'thermoplastic', which means that, like candlewax, they melt when heated and can then be reshaped. Others are 'thermosetting': Ilke eggs, they cannot revert to their original viscous state, and their shape is thus fixed for ever. Bakelite had the distinction of being the first totally synthetic thermosetting plastic.

The history of today's plastics begins with the discovery of a series of semi-synthetic thermoplastic materials in the mid-nineteenth century. The impetus behind the development of these early plastics was generated by a number of factors – immense technological progress in the domain of chemistry, coupled with wider cultural changes,

and the pragmatic need to find acceptable substitutes for dwindling supplies of luxury' materials such as tortoiseshell and ivory.

Baekeland's interest in plastics began in 1885 when, as a young chemistry student in Belgium, he embarked on research into phenolic resins, the group of sticky substances produced when phenol (carbolic acid) combines with an aldehyde (a volatile fluid similar to alcohol). He soon abandoned the subject, however, only returning to it some years later. By 1905 he was a wealthy New Yorker, having recently made his fortune with the invention of a new photographic paper. While Baekeland had been busily amassing dollars, some advances had been made in the development of plastics.

The years 1899 and 1900 had seen the patenting of the first semi-synthetic thermosetting material that could be manufactured on an industrial scale. In purely scientific terms, Baekeland's major contribution to the field is not so much the actual discovery of the material to which he gave his name, but rather the method by which a reaction between phenol and formaldehyde could be controlled, thus making possible its preparation on a commercial basis. On 13 July 1907, Baekeland took out his famous patent describing this preparation, the essential features of which are still in use today.

The original patent outlined a three-stage process, in which phenol and formaldehyde (from wood or coal) were initially combined under vacuum inside a large egg-shaped kettle. The result was a resin known as Novalak, which became soluble and malleable when heated. The resin was allowed to cool in shallow trays until it hardened, and then broken up and ground into powder. Other substänces were then introduced: including fillers, such as woodflour, asbestos or cotton, which increase strength and moisture resistance, catalysts (substances to speed up the reaction between two chemicals without joining to either) and hexa, a compound of ammonia and formaldehyde which supplied

the additional formaldehyde necessary to form a thermosetting resin. This resin was then left to cool and harden, and ground up a second time. The resulting granular powder was raw Bakelite, ready to be made into a vast range of manufactured objects. In the last stage, the heated Bakelite was poured into a hollow mould of the required shape and subjected to extreme heat and pressure, thereby 'setting' its form for life.

The design of Bakelite objects, everything from earrings to television sets, was governed to a large extent by the technical requirements of the moulding process. The object could not be designed so that it was locked into the mould and therefore difficult to extract. A common general rule was that objects should taper towards the deepest part of the mould, and if necessary the product was moulded in separate pieces. Moulds had to be carefully designed so that the molten Bakelite would flow evenly and completely into the mould. Sharp corners proved impractical and were thus avoided, giving rise to the smooth, 'streamlined' style popular in the 1930s. The thickness of the walls of the mould was also crucial: thick walls took longer to cool and harden, a factor which had to be considered by the designer in order to make the most efficient use of machines.

Baekeland's invention, although treated with disdain in its early years, went on to enjoy an unparalleled popularity which lasted throughout the first half of the twentieth century. It became the wonder product of the new world of industrial expansion – 'the material of a thousand uses'. Being both non-porous and heat-resistant, Bakelite kitchen goods were promoted as being germ-free and sterilisable. Electrical manufacturers seized on its insulating properties, and consumers everywhere relished its dazzling array of shades, delighted that they were now, at last, no longer restricted to the wood tones and drab browns of the pre-plastic era. It then fell from favour again during the 1950s, and was despised and destroyed in vast quantities. Recently, however, it has been experiencing something of a renaissance, with renewed demand for original Bakelite objects in the

collectors' marketplace, and museums, societies and dedicated individuals once again appreciating the style and originality of this innovative material.

Question 1-3

Instructions to follow

- Choose ONE WORD ONLY from the passage for each answer.
- Write your answers in boxes 1-3 on your answer sheet

Complete the summary

Some plastics behave in a similar way to (1)_____ in that they melt under heat and can be moulded into new forms. Bakelite was unique because it was the first material to be both entirely (2)_____ in origin and thermosetting.

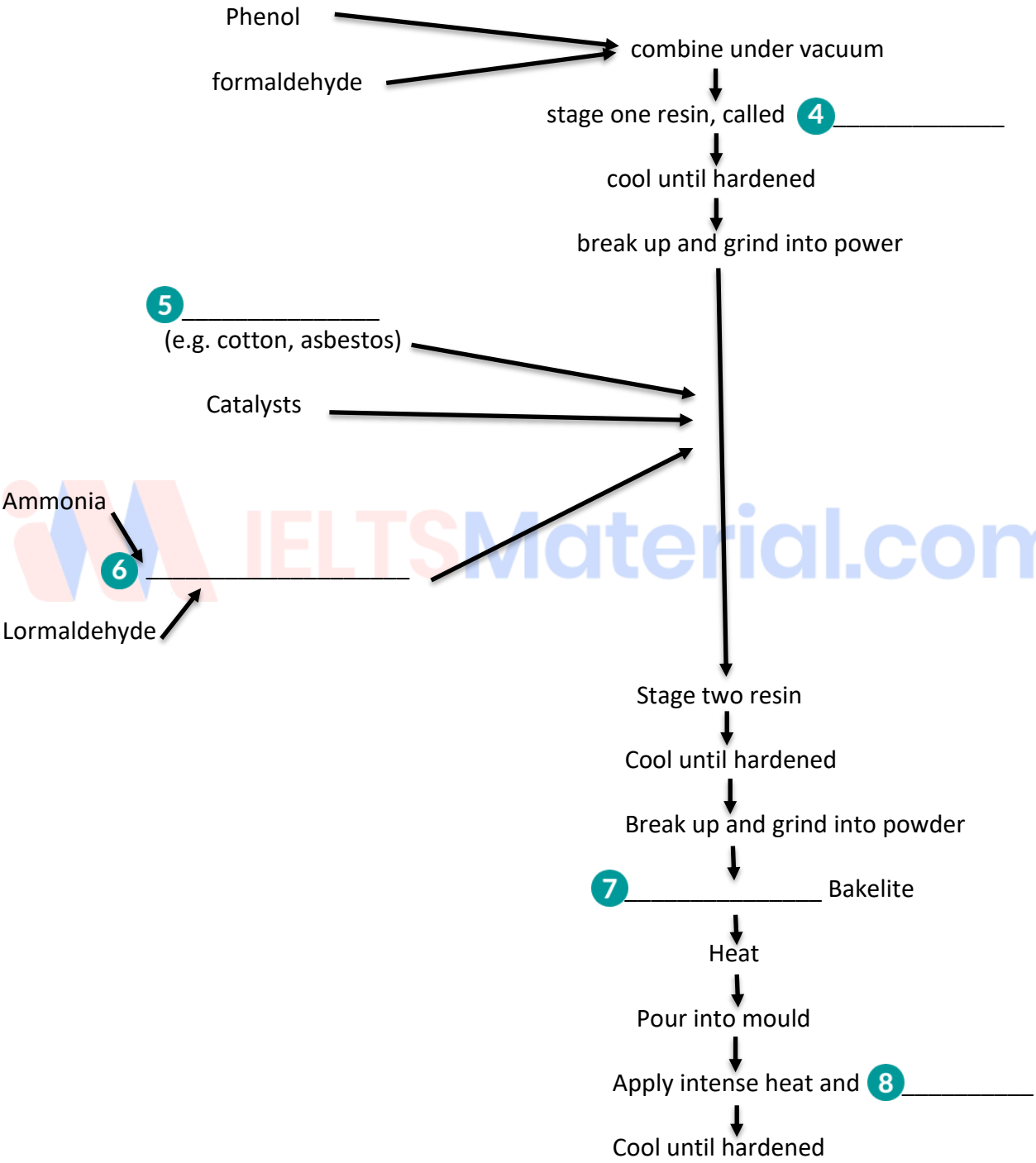
There were several reasons for the research into plastics in the nineteenth century among them the great advances that had been made in the field of (3)_____ and the search for alternatives to natural resources like ivory.

Questions 4-8

Instructions to follow

- Complete the flow-chart.
- Choose ONE WORD ONLY from the passage for each answer.
- Write your answer in boxes 4-8 on your answer sheet.

The Production of Bakelite



Questions 9 and 10

Instructions to follow

- Choose TWO letters A-E.
- Write your answers in boxes 9 and 10 on your answer sheet.
- NB Your answer may be given in either order.

Which TWO of the following factors influencing the design of Bakelite objects are mentioned in the text?

A the function which the object would serve

B the ease with which the resin could fill the mould

C the facility with which the object could be removed from the mould

D the limitations of the materials used to manufacture the mould

E the fashionable styles of the period

Questions 11-13

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1?
  In boxes 11-13 on your answer sheet, write
  TRUE if the statement agrees with the information
  FALSE if the statement contradicts the information
  NOT GIVEN if there is no information on this

11 Modern-day plastic preparation is based on the same principles as that patented in 1907.

12 Bakelite was immediately welcomed as a practical and versatile material.

13 Bakelite was only available in a limited range of colours.

Section 2

Instructions to follow

- You should spend 20 minutes on Questions 14-26 which are based on Reading Passage 2.

Vitamins – to supplement or not

Mineral, vitamin, and antioxidant health supplements make up a multi-billion-dollar industry in the United States alone, but do they really work? Evidence suggests supplementation is clearly indicated in special circumstances, but can actually be harmful in others. For the general population, however, supplements have negligible or no impact on the prevention of common cancers, cardiovascular diseases, cognitive decline, mortality, or any other major indicators of health. In pursuit of a longer, happier and healthier life, there are certainly better investments for most people than a tube of vitamin supplements.

Particular sub-groups of the population can gain a proven benefit from supplementation. Folic acid has long been indicated as a prenatal supplement due to its assistance in foetal cell division and corresponding ability to prevent neural tube birth defects. Since Canada and the United States decided to require white flour to be fortified with folic acid, spinal birth defects have plummeted by 75%, and rates of neuroblastoma (a ravaging form of infant cancer) are now 50% lower. In countries without such fortification, or for women on low-carbohydrate diets, a prenatal multivitamin could make the crucial difference. The United States Department of Health and Human Services has concluded that the elderly may also benefit from extra vitamin D; calcium can help prevent bone fractures; and zinc

and antioxidants can maintain vision while deflecting macular degeneration in people who would otherwise be likely to develop this affliction.

There is mounting evidence, however, for many people to steer clear of multivitamins. The National Institutes of Health has noted a "disturbing evidence of risk" in tobacco users: beta-carotene, a common ingredient in multivitamins, was found over a six-year study to significantly contribute to higher lung cancer and mortality rates in smokers. Meanwhile, excessive vitamin A (a supplement often taken to boost the immune system) has been proven to increase women's risk of a hip fracture, and vitamin E, thought to improve cardiovascular health, was contraindicated in a study that demonstrated higher rates of congestive heart failure among such vitamin users. Antioxidant supplementation has no purpose nor does it achieve anything, according to the Food and Nutrition Board of the National Academy of Sciences, and the Medical Letter Group has gone further in suggesting they may interfere with treatment and promote some cancers. Antioxidants are generally regarded as counteracting the destructive effect of free radicals in the body, but according to the Medical Letter's theory, free radicals may also serve the purpose of sending a powerful signal to the body's immune system to fix the damage. By taking supplements, we risk undermining that message and upsetting the balance of antioxidants and free radicals in the body. The supplements counteract the free radicals, the immune system is not placed on alert, and the disease could sneak through the gates.

One problem with supplementation by tablet is the poor record on digestibility. These tablets are often stocked with metal-based minerals that are essentially miniature rocks, and our bodies are unable to digest them. Even the vitamin elements of these pills that are theoretically digestible are often unable to be effectively extracted by our bodies when they arrive in such a condensed form. In Salt Lake City, for example, over 150 gallons of vitamin and mineral pills are retrieved from the sewer filters each month. According to

the physician's desk reference, only about 10% – 20% of multivitamins are absorbed by the body. The National Advisory Board is even more damning, suggesting that every 100mg of tablet corresponds to about 8.3mg of blood concentration, although noting that this can still potentially perform a helpful role in some cases. In effect, for every $100 you spend on vitamin supplements, over $90 of that is quite literally flushed down the toilet.

A final argument against multivitamins is the notion that they can lead people – consciously or not – to the conclusion that supplementation fills in the gaps of an unhealthy diet and mops up afterwards, leaving their bodies none the wiser that instead of preparing a breakfast of fresh fruit and muesli, they popped a tiny capsule with coffee and a chocolate bar. In a seven-year study, however, the Heart Protection study did not find any positive outcome whatsoever from multivitamins and concluded that while vitamins in the diet are important, multivitamin tablets are safe but completely useless. There is evidently no shortcut around the task of buying, preparing, and consuming fresh fruit and vegetables every day. Boosting, supplementing, and fortifying products alter people's very perception of what healthy food is; instead of heading for the fresh produce aisle in the supermarket, they are likely to seek out sugary, processed foods with a handful of extra B vitamins as a healthy choice. We cannot supplement our way out of a bad diet.

Questions 14-16

Instructions to follow

- Choose the correct letter, A, B, C or D. Write the correct letters in boxes 14-16 on your answer sheet.

14 The writer does not recommend multivitamin supplementation for____

A pregnant women.
B young children.
C anyone prone to eye problems.
D old people.

15 According to the writer, vitamin E has been shown to____

A lead to heart problems.
B be good for heart health.
C support the immune system.
D have no effect.

16 The Medical letter Group believes antioxidant supplementation___

A is ineffective in attacking free radicals.
B alerts the immune system to the presence of free radicals.
C attacks both free radicals and the immune system.
D prevents the immune system from responding to free radicals.

Questions 17-21

Instructions to follow

- Do the following statements agree with the information given in the Reading Passage 2? In boxes 17-21 on your answer sheet, write

  YES if the statement agrees with the views of the writer
  NO if the statement contradicts the views of the writer
  NOT GIVEN if it is impossible to say what the writer thinks about this

17 Some multivitamin tablets have indigestible ingredients.

18 Some individual vitamins are better absorbed than others in a tablet form.

19 Our bodies cannot distinguish food-based from supplement-based vitamins.

20 Multivitamins can lead to poorer overall eating habits in a person's life.

21 People typically know that fortified processed foods are not good for them.

Questions 22-26

Instructions to follow

- Classify the following groups of people according to whether they believe.
- Write the correct letter, A, B or C, in boxes 22-26 on your answer sheet.

  A the supplementation may have a positive effect
  B the supplementation may have a negative effect
  C supplementation has no effect

22 The United States Department of Health and Human Services

A ○ B ○ C ○

23 The National Institutes of Health

A ○ B ○ C ○

24 The Food and Nutrition Board of the National Academy of Sciences

A ○ B ○ C ○

25 The National Advisory Board

A ○ B ○ C ○

26 The Heart Protection Group

A ○ B ○ C ○

Section 3

Instructions to follow

- You should spend 20 minutes on Questions 27-40 which are based on Reading Passage 3

The Climate Changers

A. The romantic notion that early humans lived in harmony with their environment has taken quite a battering lately. Modem humans may have started eliminating other species right from the start; our ancestors stand accused of wiping out megafauna – from giant flightless birds in Australia to mammoths in Asia and the ground sloth of North America – as they spread across the planet. Even so, by around 6,000 years ago there were only about 12 million people on earth – less than a quarter of the current population of Great Britain. That's a far cry from today's 6.6 billion, many of us guzzling fossil fuels, churning out greenhouse gases, and messing with our planet's climate like there's no tomorrow. So it may seem far-fetched to suggest that humans have been causing global warming ever since our ancestors started burning and cutting forests to make way for fields at least 7,000 years ago.

B. Yet that's the view of retired climate scientist William Ruddiman, formerly of the University of Virginia, Charlottesville. Ancient farmers were pumping climate-warming carbon dioxide and methane into the atmosphere long before recorded history began, he says. Far from causing a catastrophe, however, early farmers halted the planet's descent into another ice age and kept Earth warm and stable for thousands of years. Could a few primitive farmers really have changed the climate of the entire globe? If you find this hard to believe, you're not the only one. Ruddiman's idea has been hugely controversial ever since he proposed it in 2003. 'Most new ideas, especially controversial ones, die out pretty

fast. It doesn't take science long to weed them out,' he says. Yet five years on, his idea is still not dead. On the contrary, he says the latest evidence strengthens his case. 'It has become clear that natural explanations for the rise in greenhouse gases over the past few thousand years are the ones that are not measuring up, and we can reject them,' he claims.

C. There is no doubt that the soaring levels of carbon dioxide and other greenhouse gases that we see in the atmosphere today – causing a 0.7° C rise in average global temperature during the 20th century – are the result of human activities. In the late 1990s, however, Ruddiman started to suspect that our contribution to the global greenhouse began to become significant long before the industrial age began. This was when an ice core drilled at the Vostok station in Antarctica revealed how atmospheric $C0_2$ and methane levels have changed over the past 400,000 years. Bubbles trapped in the ice provide a record of the ancient atmosphere during the past three interglacials.

D. What we see is a regular pattern of rises and falls with a period of about 100,000 years, coinciding with the coming and going of ice ages. There are good explanations for these cycles: periodic changes in the planet's orbit and the axis of rotation alter the amount of sunlight reaching the Earth. We are now in one of the relatively brief, warm interglacial periods that follow an ice age. Within this larger pattern, there are regular peaks in methane every 22,000 years that coincide with the times when the Earth's orbit makes summers in the northern hemisphere warmest. This makes sense because warm northern summers drive strong tropical monsoons in southern Asia that both encourage the growth of vegetation and cause flooding, during which vegetation rotting in oxygen-poor water will emit methane. Around the Arctic, hot summers thaw wetlands for longer, again promoting both vegetation growth and methane emission.

E. In recent times, however, this regular pattern has changed. The last methane peak occurred around 11,000 years ago, at about 700 parts per billion (ppb), after which levels began to fall. But instead of continuing to fall to what Ruddiman says should have been a minimum of about 450 ppb today, the atmospheric methane began to climb again 5,000 years ago. Working with climate modellers Stephen Serves and John Kutzbach, Ruddiman has shown that if the levels of these gases had continued to fall rather than rising when they did, ice sheets would now cover swathes of northern Canada and Siberia. The world would be heading into another ice age. So why did both methane and $C0_2$ rise over the past few thousand years? In other words, why has this interglacial period been different from previous ones? Could humans be to blame?

F. Agriculture emerged around the eastern Mediterranean some 11,000 years ago, then shortly afterwards in China and several thousand years later in the Americas. Farming can release greenhouse gases in various ways: clearing forests liberates lots of stored carbon as the wood rots or is burned, for instance, while flooded rice paddies release methane just as wetlands do. To find out more about early farming, Ruddiman began to dig around in studies of agricultural history. These revealed that there was a sharp rise in rice cultivation in Asia around 5,000 years ago, with the practice spreading across China and south-east Asia. Here at least was a possible source for the unexpected methane rise.

Questions 27-29

Instructions to follow

- Choose the correct letter, A, B, C or D and write them next to 27-29 on your answer sheet.

27 One of the claims Ruddiman makes is that

A population growth is responsible for global warming.
B people have affected the climate for thousands of years.
C his ideas are not in the least bit controversial.
D so far scientists have been wrong about global warming.

28 What information did the research at Vostok reveal for the first time?

A that methane levels stabilized about 11,000 years ago
B that Antarctic ice contains methane bubbles
C that the methane levels increased about 5,000 years ago
D that we are now living in a warm interglacial period

29 The climate changers' of the title are

A modem humans.
B climate modellers.
C primitive farmers.
D natural causes.

Questions 30-34

Instructions to follow

- Complete the summary.
- Choose NO MORE THAN TWO WORDS from the passage for each answer.

To many people the controversial idea that our 30 _____ were responsible for global warming appears 31 _____ . Yet Ruddiman believes that high levels of carbon dioxide and methane – both 32 _____ , or greenhouse, gases – were being released into the Earth's atmosphere in times prior to 33 _____ . However, Ruddiman claims that this had a positive effect, as it may well have saved us from another 34 _____ .

Questions 35-40

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 3?
  TRUE if the statement agrees with the information
  FALSE if the statement contradicts the information
  NOT GIVEN if there is no information on this

35 Some megafauna has been eliminated by humans in the past 100 years.

36 Agriculture is considered a primary cause of global warming today.

37 Ruddiman's idea caused a great deal of argument among scientists.

38 New scientific evidence proves for certain that Ruddiman's theory is correct.

39 The 20th century has seen the greatest ever increase in global temperatures.

40 Changes in the Earth's orbit can affect global temperatures.

IELTS Reading Test 9

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

Can We Hold Back the *Flood*?

A. Last winter's floods on the rivers of central Europe were among the worst since the Middle Ages, and as winter storms return, the spectre of floods is returning too. Just weeks ago, the river Rhône in south-east France burst its banks, driving 15,000 people from their homes, and worse could be on the way. Traditionally, river engineers have gone for Plan A: get rid of the water fast, draining it off the land and down to the sea in tall-sides rivers re-engineered as high-performance drains. But however big they dig city drains, however wide and straight they make the rivers, and however high they build the banks, the floods keep coming back to haunt them, from the Mississippi to the Danube. And when the floods come, they seem to be worse than ever.

B. No wonder engineers are turning to Plan B: sap the water's destructive strength by dispersing it into fields, forgotten lakes, flood plains and aquifers. Back in the days when rivers took a more tortuous path to the sea, floodwaters lost impetus and volume while meandering across flood plains and idling through wetlands and inland deltas. But today the water tends to have an unimpeded journey to the sea. And this means that when it rains in the uplands, the water comes down all at once. Worse, whenever we close off more flood plain, the river's flow farther downstream becomes more violent and

uncontrollable. Dykes are only as good as their weakest link – and the water will unerringly find it.

C. Today, the river has lost 7 per cent of its original length and runs up to a third faster. When it rains hard in the Alps, the peak flows from several tributaries coincide in the main river, where once they arrived separately. And with four-fifths of the Lower Rhine's flood plain barricaded off, the waters rise ever higher. The result is more frequent flooding that does ever-greater damage to the homes, offices and roads that sit on the flood plain. Much the same has happened in the US on the mighty Mississippi, which drains the world's second-largest river catchment into the Gulf of Mexico.

D. The European Union is trying to improve rain forecasts and more accurately model how intense rains swell rivers. That may help cities prepare, but it won't stop the floods. To do that, say, hydrologists, you need a new approach to engineering, not just Agency – country £1 billion – puts it like this: "The focus is now on working with the forces of nature. Towering concrete walls are out, and new wetlands are in." to help keep London's upstream and reflooding 10 square kilometres outside Oxford. Nearer to London it has spent £100 million creating new wetlands and a relief channel across 16 kilometres.

E. The same is taking place on a much grander scale in Austria, in one of Europe's largest river restorations to date. Engineers are regenerating flood plains along 60 kilometres of the river Drave as it exits the Alps. They are also widening the river bed and channelling it back into abandoned meanders, oxbow lakes and backwaters overhung with willows. The engineers calculate that the restored floodplain can now store up to 10 million cubic metres of floodwaters and slow storm surges coming out of the Alps by more than an hour, protecting towns as far downstream as Slovenia and Croatia.

F. "Rivers have to be allowed to take more space. They have to be turned from flood-chutes into flood-foilers," says Nienhuis. And the Dutch, for whom preventing floods is a matter of survival, have gone furthest. A nation built largely on drained marshes and seabed had the fright of its life in 1993 when the Rhine almost overwhelmed it. The same happened again in 1995 when a quarter of a million people were evacuated from the Netherlands. But a new breed of "soft engineers" wants out cities to become porous, and Berlin is their governed by tough new rules to prevent its drains from becoming overloaded after heavy rains. Herald Kraft, an architect working in the city, says: "We now see rainwater as giant Potsdamer Platz, a huge new commercial redevelopment by DaimlerChrysler in the heart of the city.

G. Los Angeles has spent billions of dollars digging huge drains and concreting river beds to carry away the water from occasional intense storms. "In LA we receive half the water we need in rainfall, and we throw it away. Then we spend hundreds of millions to import water," says Andy Lipkis, an LA environmentalist who kick-started the idea of the porous city by showing it could work on one house. Lipkis, along with citizens groups like Friends of the Los Angeles River and Unpaved LA, want to beat the urban flood hazard and fill the taps by holding onto the city's floodwater. And it's not just a pipe dream. The authorities this year launched a $100 million scheme to road-test the porous city in one flood-hit community in Sun Valley. The plan is to catch the rain that falls on thousands of driveways, parking lots and rooftops in the valley. Trees will soak up water from parking lots. Homes and public buildings will capture roof water to irrigate gardens and parks. And road drains will empty into old gravel pits and other leaky places that should recharge the city's underground water reserves. Result: less flooding and more water for the city. Plan B says every city should be porous, every river should have room to flood naturally and every coastline should be left to build its own defences. It sounds expensive and utopian, until

you realise how much we spend trying to drain cities and protect our watery margins – and how bad we are at it.

Questions 1-6

Instructions to follow

- The Reading Passage has seven paragraphs A-G. Which paragraph contains the following information?
- Write the correct letter A-G, in boxes 1-6 on your answer sheet.

1 A new approach carried out in the UK.

A ○ B ○ C ○ D ○ E ○ F ○ G ○

2 Reasons why the twisty path and dykes failed

A ○ B ○ C ○ D ○ E ○ F ○ G ○

3 Illustration of an alternative Plan in LA which seems much unrealistic

A ○ B ○ C ○ D ○ E ○ F ○ G ○

4 The traditional way of tackling flood

A ○ B ○ C ○ D ○ E ○ F ○ G ○

5 The effort made in the Netherlands and Germany

A ○ B ○ C ○ D ○ E ○ F ○ G ○

6 One project on a river benefits three nations

A ○ B ○ C ○ D ○ E ○ F ○ G ○

Questions 7-11

Instructions to follow

- Complete the following summary of the paragraphs of Reading Passage.
- Using NO MORE THAN TWO WORDS from the Reading Passage for each answer. Write your answers in boxes 7-11 on your answer sheet.

Flood makes the river shorter than it used to be, which means faster speed and more damage to constructions on a flood plain. Not only European rivers pose such a threat but the same thing happens to the powerful 7 ..... in the US.

In Europe, one innovative approach carried out by the UK's Environment Agency, for example, a wetland instead of concrete walls was generated not far from the city of 8 ..... to protect it from flooding.

In 1995, the Rhine flooded again and thousands of people left the country of 9 .....

A league of engineers suggested that cities should be porous, 10 ..... set a good example for others. Another city devastated by heavy storms casually is 11 ....., though its government pours billions of dollars each year in order to solve the problem.

Questions 12-13

Instructions to follow

- Choose TWO correct letters, write your answers in boxes 12-13 on your answer sheet.

What **TWO benefits** will the new approach in the UK and Austria bring to us according to this passage?

A ◯ We can prepare before the flood comes

B ◯ It may stop the flood involving the whole area

C ◯ Decrease strong rainfalls around the Alps simply by engineering constructions

D Reserve water to protect downstream towns

E Store tons of water in the downstream area

Section 2

Instructions to follow

- You should spend about 20 minutes on Questions 14-26 which are based on Reading Passage 2

How deserts are formed?

A. A desert refers to a barren section of land, mainly in arid and semi-arid areas, where there is almost no precipitation, and the environment is hostile for any creature to inhabit. Deserts have been classified in a number of ways, generally combining total precipitation, how many days the rainfall occurs, temperature, humidity, and sometimes additional factors. In some places, deserts have clear boundaries marked by rivers, mountains or other landforms, while in other places, there are no clear-cut borders between desert and other landscape features.

B. In arid areas where there is not any covering of vegetation protecting the land, sand and dust storms will frequently take place. This phenomenon often occurs along the desert margins instead of within the deserts, where there are already no finer materials left. When a steady wind starts to blow, fine particles on the open ground will begin vibrating. As the wind picks up, some of the particles are lifted into the air. When they fall onto the ground, they hit other particles which will then be jerked into the air in their turn, initiating a chain reaction.

C. There has been a tremendous deal of publicity on how severe desertification can be, but the academic circle has never agreed on the causes of desertification. A common misunderstanding is that a shortage of precipitation causes the desertification—even the land in some barren areas will soon recover after the rain falls. In fact, more often than

not, human activities are responsible for desertification. It might be true that the explosion in world population, especially in developing countries, is the primary cause of soil degradation and desertification. Since the population has become denser, the cultivation of crops has gone into progressively drier areas. It's especially possible for these regions to go through periods of severe drought, which explains why crop failures are common. The raising of most crops requires the natural vegetation cover to be removed first; when crop failures occur, extensive tracts of land are devoid of a plant cover and thus susceptible to wind and water erosion. All through the 1990s, dryland areas went through a population growth of 18.5 per cent, mostly in severely impoverished developing countries.

D. Livestock farming in semi-arid areas accelerates the erosion of soil and becomes one of the reasons for advancing desertification. In such areas where the vegetation is dominated by grasses, the breeding of livestock is a major economic activity. Grasses are necessary for anchoring barren topsoil in a dryland area. When a specific field is used to graze an excessive herd, it will experience a loss in vegetation coverage, and the soil will be trampled as well as be pulverised, leaving the topsoil exposed to destructive erosion elements such as winds and unexpected thunderstorms. For centuries, nomads have grazed their flocks and herds to any place where pasture can be found, and oases have offered chances for a more settled way of living. For some nomads, wherever they move to, the desert follows.

E. Trees are of great importance when it comes to maintaining topsoil and slowing down the wind speed. In many Asian countries, firewood is the chief fuel used for cooking and heating, which has caused uncontrolled clear-cutting of forests in dryland ecosystems. When too many trees are cut down, windstorms and dust storms tend to occur.

F. What's worse, even political conflicts and wars can also contribute to desertification. To escape from the invading enemies, the refugees will move altogether into some of the most vulnerable ecosystems on the planet. They bring along their cultivation traditions, which might not be the right kind of practice for their new settlement.

G. In the 20th century, one of the states of America had a large section of farmland that had turned into desert. Since then, actions have been enforced so that such a phenomenon of desertification will not happen again. To avoid the reoccurring of desertification, people shall find other livelihoods which do not rely on traditional land uses, are not as demanding on local land and natural resource, but can still generate viable income. Such livelihoods include but are not limited to dryland aquaculture for the raising of fish, crustaceans and industrial compounds derived from microalgae, greenhouse agriculture, and activities that are related to tourism. Another way to prevent the reoccurring of desertification is bringing about economic prospects in the city centres of drylands and places outside drylands. Changing the general economic and institutional structures that generate new chances for people to support themselves would alleviate the current pressures accompanying the desertification processes.

H. In nowadays society, new technologies are serving as a method to resolve the problems brought by desertification. Satellites have been utilised to investigate the influence that people and livestock have on our planet Earth. Nevertheless, it doesn't mean that alternative technologies are not needed to help with the problems and process of desertification.

Questions 14-20

Instructions to follow

- Reading Passage 2 has eight paragraphs, A-H. Which paragraph contains the following information?
- Write the correct letter, A-H, in boxes 14-20 on your answer sheet.
- NB You may use any letter more than once.

14 a reference to the irregular movement of particles

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

15 mention of a productive land turning into a desert in the 20th century

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

16 types of deserts

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

17 mention of technical methods used to tackle the problems of deserts

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

18 the influence of migration on desertification

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

19 lack of agreement among the scientists about the causes of desertification

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

20 a description of the fatal effects of farming practice

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○

Questions 21-26

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 2?
  In boxes 21-26 on your answer sheet, write
  TRUE if the statement is true
  FALSE if the statement is false
  NOT GIVEN if the information is not given in the passage

21 It is difficult to ascertain where the deserts end in some areas.

22 Media is uninterested in the problems of desertification.

23 The most common cause of desertification is the lack of rainfall.

24 Farming animals in semi-arid areas will increase soil erosion.

25 People in Asian countries no longer use firewood as the chief fuel.

26 Technology studying the relationship of people, livestock and desertification has not yet been invented.

Section 3

Instructions to follow

- You should spend 20 minutes on Questions 27-40 which are based on Reading Passage 3

Architecture in Britain

From the Middle Ages to the 20th century, what are the influences and movements that have shaped the changing face of British architecture? Architecture is about evolution, not revolution. It used to be thought that once the Romans pulled out of Britain in the fifth century, their elegant villas, carefully-planned towns and engineering marvels like Hadrian's Wall simply fell into decay as British culture was plunged into the Dark Ages. It took the Norman Conquest of 1 066 to bring back the light, and the Gothic cathedral-builders of the Middle Ages played an important part in the revival of British culture. However, the truth is not as simple as that. Romano-British culture—and that included architecture along with language, religion, political olilanisation and the arts—survived long after the Roman withdrawal. And ough the Anglo-Saxons had a sophisticated building style of their own, i e survives to bear witness to their achievements as the vast majority of AngloSaxon buildings were made of wood.

Even so, the period between the Norman landing at Pevensey in 1066 and the day in 1485 when Richard III lost his horse and his head at Bosworth, ushering in the Tudors and the Early Modern period, marks a rare flowering of British buildings. And it is all the more remarkable because the underlying ethos of medieval architecture was "fitness for purpose". The great cathedrals and parish churches that lifted up their towers to heaven

were not only acts of devotion in stone; they were also fiercely functional buildings. Castles served their particular purpose and their battlements and turrets were for use rather than ornament. The rambling manor houses of the later Middle Ages, however, were primarily homes, their owners achieving respect and maintaining status by their hospitality and good lordship rather than the grandeur of their buildings. In a sense, the buildings of the 16th century were also governed by fitness for purpose—only now, the 0 pose was very different. In domestic architecture, in particular, buildings are used to display status and wealth.

This stately and curious workmanship showed itself in various ways. A greater sense of security led to more outward-looking buildings, as opposed to the medieval arrangement where the need for defence created houses that faced inward onto a courtyard or series of courtyards. This allowed for much more in the way of exterior ornament. The rooms themselves tended to be bigger and lighter—as an expensive commodity, the use of great expanses of glass was in itself a statement of wealth. There was also a general move towards balanced and symmetrical exteriors with central entrances. With the exception of !nip Jones (1573-1652), whose confident handling of classical detail and proportion set him apart from all other architects of the period, most early 1 7th century buildings tended to take the innocent exuberance of late Tudor work one step further. But during the 1640s and 50s the Civil War and its aftermath sent many gentlemen and nobles to the Continent either to escape the fighting or, when the war was lost, to follow Charles II into exile. There they came into contact with French, Dutch and Italian architecture and, with Charles's restoration in 1 660, there Osa flurry of building activity as royalists reclaimed their property and built m selves houses reflecting the latest European trends. The British Baroque was a reassertion of authority, an expression of absolutist ideology by men who remembered a world turned upside down during the Civil War.

The style is heavy and rich, sometimes overblown and melodramatic. The politics which underpin it are questionable, but its products are breathtaking. The huge glass-and-iron Crystal Palace, designed by Joseph Paxton to house the Great Exhibition of 1851, shows another strand to 19th century architecture—one which embraced new industrial processes. But it wasn't long before even this confidence in progress came to be regarded with suspicion. Mass production resulted in buildings and furnishings that were too perfect, as the individual craftsman no longer had a major role in their creation. Railing against the dehumanising effects of industrialisation, reformers like John Ruskin and William Morris made a concerted effort to return to hand-crafted, pre-industrial manufacturing techniques. Morris's influence grew from the production of furniture and textiles, until by the 1880s a generation of principled young architects was following his call for C) td, honest construction.

Influence grew from the production of furniture and textiles, until by the 1880s a generation of principled young architects was following his call for good, honest construction. The most important trends in early 20th century architecture simply passed Britain by. Whilst Gropius was working on cold, hard expanses of glass, and Le Corbusier was experimenting with the use of reinforced concrete frames, we had staid establishment architects like Edwin Lutyens producing Neo-Georgian and Renaissance country houses for an outmoded landed class. In addition there were slightly batty architectcraftsmen, the heirs of William Morris, still trying to turn the clock back to before the Industrial Revolution by making chairs and spurning new technology. Only a handful of Modern Movement buildings of any real merit were produced here during the 1920s and 1930s, and most of these were the work of foreign architects such as Ckge Chermayeff, Berthold Lubetkin and Erno Gold-finger who had settled is country.

After the Second World War the situation began to change. The Modern Movement's belief in progress and the future struck a chord with the mood of post-war Britain and, as reconstruction began under Attlee's Labour government in 1 945, there was a desperate need for cheap housing which could be produced quickly. The use of prefabricated elements, metal frames, concrete cladding and the absence of decoration—all of which had been embraced by Modernists abroad and viewed with suspicion by the British—were adopted to varying degrees for housing developments and schools. Local authorities, charged with the task of rebuilding city centres, became important patrons of architecture. This represented a shift away from the private individuals who had dominated the architectural scene for turies.

Since the War it has been corporate bodies like these local authorities, together with national and multinational companies, and large educational institutions, which have dominated British architecture. By the late 1 980s the Modern Movement, unfairly blamed for the social experiments implicit in high-rise housing, had lost out to irony and spectacle in the shape of post-modernism, with its cheerful borrowings from anywhere and any period. But now, in the new Millennium, even post-modernism is showing signs of age. What comes next?

Questions 27 — 31

Instructions to follow

- Choose the correct letter, A, B, C or D.

27 After Romans left Britain,

A their achievements were neglected.
B their cultural legacy endured.
C there was an abrupt culture change.
D their buildings were well protected.

28 Medieval architecture aspired all above to be

A immense.
B useful.
C decorative.
D durable.

29 Which of the following architectural features characterize the 16th-century architecture in Britain?

A They faced inward.
B They had plain exteriors.
C They had small windows.
D They used symmetry in architecture.

30 How did the 17th-century British buildings come to be influenced by the styles from continental europe?

- A Fugitives brought ideas from continental Europe back to Britain.
- B British craftsmen went to work in other countries.
- C Monarchs encouraged cultural contact with other countries.
- D Buildings were restored by architects in European countries.

31 What drove building designs after the Second World War?

- A Conservatism
- B a housing shortage
- C foreign architecture
- D wealthy patronage

Questions 32 - 40

Instructions to follow

- Choose NO MORE THAN THREE WORDS from the passage for each answer.

32 Because most Anglo-Saxon buildings were constructed from ...., few of them have survived.

33 The owners of medieval manor houses in Britain earned their reputation through their.... ....and elegance.

34 The 16th-century building was designed to show evidence of.... ....and

35 In the 16th century, the use of glass was fashionable, even though it was an .....

36 Indigo Jones was particularly skilful in designing architecture in .....style.

37 Though William Morris designed..... ....and ...., his emphasis on hand-crafting influenced architects

38 In the early 20th century, architects like..... .... .were producing conservative designs.

39 Before the Second World War, modern movement buildings in Britain were mainly designed by ....

40 After the Second World War, much architecture was commissioned by …….rather than private individuals

IELTS Reading Test 10

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

Why are Finland's Schools Successful?

A. At Kirkkojarvi Comprehensive School in Espoo, a suburb west of Helsinki, Kari Louhivuori, the school's principal, decided to try something extreme by Finnish standards. One of his sixth-grade students, a recent immigrant, was falling behind, resisting his teacher's best efforts. So he decided to hold the boy back a year. Standards in the country have vastly improved in reading, math and science literacy over the past decade, in large part because its teachers are trusted to do whatever it takes to turn young lives around. 'I took Besart on that year as my private student,' explains ▪ Louhivuori. When he was not studying science, geography and math, Besart was seated next to Louhivuori's desk, taking books from a tall stack, slowly reading one, then another, then devouring them by the dozens. By the end of the year, he had conquered his adopted country's vowel-rich language and arrived at the realization that he could, in fact, learn.

B. This tale of a single rescued child hints at some of the reasons for Finland's amazing record of education success. The transformation of its education system began some 40 years ago but teachers had little idea it had been so successful until 2000. In this year, the first results from the r„Programme for International Student Assessment (PISA), a standardized test given to 15-year-olds 6a in more than 40 global venues, revealed Finnish

youth to be the best at reading in the world. Three years later, they led in math. By 2006, Finland was first out of the 57 nations that participated in science. In the latest PISA scores, the nation came second in science, third in reading and sixth in eimath among nearly half a million students worldwide.

C. In the United States, government officials have attempted to improve standards by introducing marketplace competition into public schools. In recent years, a group of Wall Street financiers and Philanthropists such as Bill Gates have put money behind private-sector ideas, such as charter schools, which have doubled in number in the past decade. President Obama, too, apparently thought competition was the answer. One policy invited states to compete for federal dollars using tests and other methods to measure teachers, a philosophy that would not be welcome in Finland. 'I think in fact teachers would tear off their shirts' said Timo Heikkinen, a Helsinki principal with 24 years of teaching experience. `` If you only measure the statistics, you miss the human aspects".

D. There are no compulsory standardized tests in Finland, apart from one exam at the end of cistudents' senior year in high school. There is no competition between students, schools or regions. ori Finland's schools are publicly funded. The people in the government agencies running them, from national officials to local authorities, are educators rather than business people or politicians. Every school has the same national goals and draws from the same pool of university-trained educators. The result is that a Finnish child has a good chance of getting the same quality education no matter whether he or she lives in a rural village or a university town.

E. It's almost unheard of for a child to show up hungry to school. Finland provides three years of maternity leave and subsidized day care to parents, and preschool for all five-year-olds, where the emphasis is on socializing. In addition, the state subsidizes parents, paying them around 150 euros per month for every child until he or she turns 17. Schools

provide food, counseling and taxi service if needed. Health care is even free for students taking degree courses.

F. Finland's schools were not always a wonder. For the first half of the twentieth century, only the privileged got a quality education. But In 1963, the Finnish Parliament made the bold decision to choose public education as the best means of driving the economy forward and out of recession. aPublic schools were organized into one system of comprehensive schools for ages 7 through 16. Teachers from all over the nation contributed to a national curriculum that provided guidelines, not prescriptions, for them to refer to. Besides Finnish and Swedish (the country's second official language), children started learning a third language (English is a favorite) usually beginning at age nine. The equal distribution of equipment was next, meaning that all teachers had their fair share of teaching resources to aid learning. As the comprehensive schools improved, so did the upper secondary schools (grades 10 through 12). The second critical decision came in 1979, when it was required that every teacher gain a fifth-year Master's degree in theory and practice, paid for by the state. From then on, teachers were effectively granted equal status with doctors and lawyers. all Applicants began flooding teaching programs, not because the salaries were so high but because autonomous decision making and respect made the job desirable. And as Louhivuori explains, 'We have our own motivation to succeed because we love the work.'

Questions 1-6

Instructions to follow

- Reading Passage 1 has six paragraphs, A-F. Choose the correct heading for each paragraph from the list of headings below.
- Write the correct number, i-ix, in boxes 1-6 on your answer sheet.

List of Headings

i . A business-model approach to education

ii . The modifications that improved education in Finland

iii . Educational challenges of the future

iv . Ways in which equality is maintained in the Finnish education system

v . The benefits of the introduction of testing

vi . An approach that helped a young learner

vii . Statistical proof of education success

viii . Support for families working and living in Finland

ix . The impact of the education system on Finland's economy

1 Paragraph A

2 Paragraph B

3 Paragraph C

4 Paragraph D

5 Paragraph E

6 Paragraph F

Questions 7-13

Instructions to follow

- Complete the notes below.
- Choose NO MORE THAN TWO WORDS AND/OR A NUMBER from the passage for each answer.
- Write your answers in boxes 7-13 on your answer sheet.

The school system in Finland

PISA tests

In the most recent tests, Finland's top subject was 7 .....

History

1963:

A new school system was needed to improve Finland's 8 .....

Schools followed 9 ..... that were created partly by teachers.

Young pupils had to study an additional 10 .....

All teachers were given the same 11 ..... to use.

1979 **:**

Teachers had to get a 12 ..... but they did not have to pay for this.

Applicants were attracted to the 13 ..... that teaching received.

Section 2

Instructions to follow

- You should spend 20 minutes on Questions 14-26 which are based on Reading Passage 2

Australia's Lost Giants

A. In 1969, a fossil hunter named Rod Wells came to Naracoorte in South Australia to explore what was then known as Victoria Cave. Wells clawed through narrow passages, and eventually into a hug. chamber. Its floor of red soil was littered with strange objects. It took Wells a moment to realize what ho was looking at; the bones of thousands of creatures that must have fallen through holes in the ground above and bacons* trapped. Some of the oldest belonged to mammals far larger than any found today in Australia. They were the ancient Australian megafauna - huge animals of the Pleistocene epoch. In boneyards across the continent, scientists have found the fossils of a giant snake, a huge flightless bird, and a seven foot kangaroo, to name but a few. Given how much ink has been spilled on the extinction of the dinosaurs, it's a wonder that even more hasn't been devoted to megafauna. Prehistoric humans did not throw spears at Tyrannosaurus not but really did hint at mammoths and mastodons.

B. The disappearance of megafauna in America - mammoths, saber-toothed cats, giant sloths, among others. happened relatively soon after the anval of human beings, about 13,000 years ago. In the 1960s. palaeoecologist Paul Martin developed what became known as the blitzkrieg hypothesis. Modern humans, Martin said, created havoc as they spread through Use Americas, wielding spears to annihilate animals that had never faced a technological predator. But this period of extinction wasn't comprehensive. North

America kept its deer, black bears and a small type of bison, and South America its jaguars and llamas.

C. What happened to Australia's large animals baffling. For years scientists blamed the extinctions on climate change. Indeed, Australia has been drying out for over a million years, and the megafauna were faced with a continent where vegetation began to disappear. Australian paleontologist Tim Flannery suggests that people, who arrived on the continent around 50,000 years ago, used fins to hunt, which led to deforestation. Here's what's chain, Flannery says. Something dramatic happened to Australia's dominant land creatures. somewhere around 46,000 years ago, strikingly soon after the Invasion of a tool•wielding, highly intelligent predator.

In Flannery's 1994 book called The Future Eaters, he sets out his thesis that human beings are a new kind of animal on the planet, and are in general, one prone to ruining ecosystems. Flannery's book proved highly controversial. Some viewed it as critical of the Aborigines, who prode themselves on living in harmony with nature. The basic problem with Flannery's thesis is that dant is no direct evidence that they killed any Australian megafauna. It would be helpful if someone uncovered a Diprotodon skeleton with a spear point embedded in a rub - or perhaps Thylacolao bones next to the charcoal of a human campfire. Such kill sites have been found in the Americas but in Australia.

D. The debate about megafauna pivots to a great dopee on the techniques for dating old bones and the sediments in which they are buried. If scientists can show that the megafauna died out fairly quickly and that this extinction went happened within a few hundred, or when a couple thousand years, of the arrival of peoplia, that's a strong case even if a purely circumstantial one • that tie one thing was the direct result of the other. As it happens, there is one dance where there may be such evidence: Cuddie Springs in Now South Wales. Today the person most vocal about the site is archeologist Judith Field.

In 1991, she discovered megafauna bones directly adjacent to stone tools • a headline-making find. She says there are two layers slsong tie association, one about 30,000 years old, the/ other 35,000 years old. If that dating is accurate. n would mean humans and megafauna coexisted in Australia for something like 20,000 years. "What Cuddie springs demonstrates is that you have an extended overlap of humans and megafauna, "Field says. Nonsense, say her critics. They say the fossils have been moved from their ongiral resting places and redeposited in younger sediments.

E. Another famous boneyard in the same region is a place called Wellington Caves, where Diprotodon, the largest known marsupial, was first discovered. Scientist Mike Augee says that: "This is a sacred site in Australian paleontology." Here's why: In 1830 a local official named George Rankin lowered himself into the cave on a rope tied to a protrusion in the cave wall. The protrusion turned out to be a bone. A surveyor named Thomas Mitchell arrived later that year, explored the caws in the area, and shipped fossils off to Richard Owen, the British paleontologist who later gained fame for revealing the existence of dinosaurs. Owen recognized that the Wellington cave bones belonged to an extinct marsupial. Later, between 1909 and 1915 sediments in Mammoth Cava that contained fossils were hauled out and ',twinned in a chaotic manner that no scientist today would approve. Still, one base in particular has drawn extensive attention: a frame with a cut in it, possibly left there by a sharp tool.

F. Unfortunately, the Earth preserves its history haphazardly. Bones disintegrate, the land erodes, the climate changes, forests come and go, rivers change their course - and history, if not destroyed, is steadily concealed. By necessity, narratives are constructed from limited data. Australia's first people expressed themselves in rock art. Paleontologist Peter Murray has studied a rock painting in far northern Australia that shows what looks very much like a megafauna marsupial known as Palorcherstes. In Western Australia

another site shows what appears to be hunter with either a marsupial bon or a Tasmanian tiger • a major distinction, since the marsupial lion went extinct and the much 'math., Tasmanian near survived into the more recent historical era. But as Murray says, "Every step of the way involves interpretation. The data doesn't just speak for itself."

Questions 14-18

Instructions to follow

- Reading Passage has six paragraphs A-F. Which paragraphs contain the following information?
- NB You may use any letter more than once.

14 descriptions of naturally occurring events that make the past hard to trace

A ○ B ○ C ○ D ○ E ○ F ○

15 an account of the discovery of a particular animal which had died out

A ○ B ○ C ○ D ○ E ○ F ○

16 the reason why a variety of animals all died in the same small area

A ○ B ○ C ○ D ○ E ○ F ○

17 the suggestion that a procedure to uncover fossilised secrets was inappropriate

A ○ B ○ C ○ D ○ E ○ F ○

18 example of the kinds of animals that did not die out as a result of hunting

A ○ B ○ C ○ D ○ E ○ F ○

Question 19 and 20

Instructions to follow

- Choose Two letters, A-E

Which Two of these possible reasons for Australian Megafauna extinction are mentioned in the text?

A Human activity
B Disease
C Loss of habitat
D A drop in temperature
E The introduction of new animal species

Question 21 and 22

Instructions to follow

- Choose Two letters, A-E

Which Two possible forms of proof does the write say have been found in Australia?

A Bone injury caused by a man made object
B Bones near to early types of weapon
C Manmade holes designed for trapping animals
D Preserved images of megafauna species
E Animal remains at camp fires

Question 23 - 26

Instructions to follow

- Do the following statements agree with the claims of the writer in the passage?
  YES if the statement agrees with the claims of the writer
  NO if the statement contradicts the claims of the writer
  NOT GIVEN if it is impossible to say what the writer thinks about this

23 Extinct megafauna should receive more attention than the extinction of the dinosaurs

24 There are problems with Paul Martins 'Blitzkrieg' hypothesis for the Americans.

25 The Aborigines should have found a more effective way to protest about Flannery's book

26 There's a sufficient evidence to support Tim Flannery's ideas about megafauna extinction

Section 3

Instructions to follow

- You should spend 20 minutes on Questions 27-40 which are based on Reading Passage 3

The Swiffer

For a fascinating tale about creativity, look at a cleaning product called the Swiffer and how it came about, urges writer Jonah Lehrer. In the story of the Swifter, he argues, we have the key elements in producing breakthrough ideas: frustration, moments of insight and sheer hard work. The story starts with a multinational company which had invented products for keeping homes spotless, and couldn't come up with better ways to clean floors, so it hired designers to watch how people cleaned. Frustrated after hundreds of hours of observation, they one day noticed a woman do with a paper towel what people do all the time: wipe something up and throw it away. An idea popped into lead designer Harry West's head: the solution to their problem was a floor mop with a disposable cleaning surface. Mountains of prototypes and years of teamwork later, they unveiled the Swiffer, which quickly became a commercial success.

Lehrer, the author of imagine, a new book that seeks to explain how creativity works, says this study of the imagination started from a desire to understand what happens in the brain at the moment of sudden insight. 'But the book definitely spiraled out of control,' Lehrer says. When you talk to creative people, they'll tell you about the 'eureka—moment, but when you press them they also talk about the hard work that comes afterwards, so I realised I needed to write about that, too. And then I realised I couldn't

just look at creativity from the perspective of the brain, because it's also about the culture and context, about the group and the team and the way we collaborate.

When it comes to the mysterious process by which inspiration comes into your head as if from nowhere, Lehrer says modern neuroscience has produced a 'first draft' explanation of what is happening in the brain. He writes of how burnt-out American singer Bob Dylan decided to walk away from his musical career in 1965 and escape to a cabin in the woods, only to be overcome by a desire to write. Apparently 'Like a Rolling Stone' suddenly flowed from his pen. 'It's like a ghost is writing a song,' Dylan has reportedly said. 'It gives you the song and it goes away.' But it's no ghost, according to Lehrer.

Instead, the right hemisphere of the brain is assembling connections between past influences and making something entirely new. Neuroscientists have roughly charted this process by mapping the brains of people doing word puzzles solved by making sense of remotely connecting information. For instance, subjects are given three words —such as 'age', 'mile' and 'sand' — and asked to come up with a single word that can precede or follow each of them to form a compound word. (It happens to be 'stone'.) Using brain-imaging equipment, researchers discovered that when people get the answer in an apparent flash of insight, a small fold of tissue called the anterior superior temporal gyrus suddenly lights up just beforehand. This stays silent when the word puzzle is solved through careful analysis. Lehrer says that this area of the brain lights up only after we've hit the wall on a problem. Then the brain starts hunting through the 'filing cabinets of the right hemisphere' to make the connections that produce the right answer.

Studies have demonstrated it's possible to predict a moment of insight up to eight seconds before it arrives. The predictive signal is a steady rhythm of alpha waves emanating from the brain's right hemisphere, which are closely associated with relaxing

activities. 'When our minds are at ease —when those alpha waves are rippling through the brain — we're more likely to direct the spotlight of attention towards that stream of remote associations emanating from the right hemisphere,' Lehrer writes. 'In contrast, when we are diligently focused, our attention tends to be towards the details of the problems we are trying to solve.' In other words, then we are less likely to make those vital associations. So, heading out for a walk or lying down are important phases of the creative process, and smart companies know this. Some now have a policy of encouraging staff to take time out during the day and spend time on things that at first glance are unproductive (like playing a PC game), but day-dreaming has been shown to be positively correlated with problem-solving. However, to be more imaginative, says Lehrer, it's also crucial to collaborate with people from a wide range of backgrounds because if colleagues are too socially intimate, creativity is stifled.

Creativity, it seems, thrives on serendipity. American entrepreneur Steve Jobs believed so. Lehrer describes how at Pixar Animation, Jobs designed the entire workplace to maximise the chance of strangers bumping into each other, striking up conversations and learning from one another. He also points to a study of 766 business graduates who had gone on to own their own companies. Those with the greatest diversity of acquaintances enjoyed far more success. Lehrer says he has taken all this on board, and despite his inherent shyness, when he's sitting next to strangers on a plane or at a conference, forces himself to initiate conversations. As for predictions that the rise of the Internet would make the need for shared working space obsolete, Lehrer says research shows the opposite has occurred; when people meet face•to• face, the level of creativity increases. This is why the kind of place we live in is so important to innovation. According to theoretical physicist Geoffrey West, when corporate institutions get bigger, they often become less receptive to change. Cities, however, allow our ingenuity to grow by pulling huge numbers of different people together, who then exchange ideas. Working from the

comfort of our homes may be convenient, therefore, but it seems we need the company of others to achieve our finest 'eureka' moments.

Questions 27-28

Instructions to follow

- Choose the correct letter, A, B, C or D.

27 What are we told about the product called a 'Swifter'? 1 9:47

A Its designers had little experience working with household objects.
B Once the idea for it was conceived, it did not take tong to develop.
C it achieved profits beyond the manufacturer's expectations.
D Its design was inspired by a common housework habit.

28 When Jonah Lehrer began writing his book,

A he had not intended to focus on creativity.
B he ended up revising his plans for the content.
C he was working in a highly creative environment.
D he was driven by his own experience of the 'eureka' moment.

Questions 29-30

Instructions to follow

- Choose the correct letter, A, B, C or D.

29 Lehrer refers to the singer Bob Dylan in order to

A ○ illustrate how ideas seem spontaneous.
B ○ exemplify ways in which we might limit our inventiveness.
C ○ contrast different approaches to stimulating the imagination.
D ○ propose particular approaches to regaining lost creativity.

30 What did neuroscientists discover from the word puzzle experiment?

A ○ Memories are easier to retrieve when they are more meaningful.
B ○ An analytical approach to problem-solving is not necessarily effective.
C ○ One part of the brain only becomes active when a connection is made suddenly.
D ○ Creative people tend to take a more instinctive approach to languag problems.

Questions 31-34

Instructions to follow

- Complete each sentence with the correct ending, A-G, below.

31 Scientists know a moment of insight is coming

A ○ B ○ C ○ D ○ E ○ F ○ G ○

32 Mental connections are much harder to make

A ○ B ○ C ○ D ○ E ○ F ○ G ○

33 Some companies require their employees to stop working

A ○ B ○ C ○ D ○ E ○ F ○ G ○

34 A team will function more successfully

A ○ B ○ C ○ D ○ E ○ F ○ G ○

A when people are not too familiar with one another.

B because there is greater activity in the right side of the brain.

C if people are concentrating on the specifics of a problem.

D so they can increase the possibility of finding answers.

E when people lack the experience required for problem-solving.

F when the brain shows strong signs of distraction.

G when both hemispheres of the brain show activity.

Questions 35-39

Instructions to follow

- Complete the notes below. Choose ONE WORD ONLY from the passage.

How other people influence our creativity

Steve Jobs

— made changes to the 35 _____ encourage Interaction at Pine.

Lehrer

— company mown must have a wide range of 36 _____ to do well.

— it's Important to start 37_____ with new people

— the 38_____has not replaced the need for physical contact.

Geoffrey West

— living In 39_____ encourage creativity.

Question 40

Instructions to follow

- Choose the correct letter, A, B, C or D.

Which of the following is the most suitable title for Reading Passage 3?

A Understanding what drives our moments of inspiration

B Challenging traditional theories of human creativity

C Creative solutions for enhancing professional relationships

D Mow the future is shaped by innovative ideas and inspired people

IELTS Reading Test 11

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-14 which are based on Reading Passage 1

Tikopia

A. There are still debates about the origins of Polynesian culture, but one thing we can ensure is that Polynesia is not a single tribe but a complex one. Polynesians, which includes Marquesan , Samoans, Niueans, Tongans, Cook Islanders, Hawaiians, Tahitians, and Maori, are genetically linked to indigenous peoples of parts of Southeast Asia. It's a sub-region of Oceania, comprising a large grouping of over 1 ,000 islands scattered over the central and southern Pacific Ocean, within a triangle that has New Zealand, Hawaii and Easter Island as its corners.

B. Polynesian history has fascinated the western world since Pacific cultures were first contacted by European explorers in the late 18th century. The small island of Tikopia, for many people - even for many Solomon Islanders-- is so far away that it seems like a mythical land; a place like Namia that magical land in C. S. Lewis, classic, 'The Chronicles of Namia." Maybe because of it — Tikopia, its people, and their cultures have long fascinated scholars, travelers, and casual observers. Like the pioneers Peter Dillion, Dumoni D' Urville and John Colleridge Patterson who visited and wrote about the island in the 1800s, Raymond Firth is one of those people captured by the alluring attraction of Tikopia. As a result, he had made a number of trips to the island since the 1920s and recorded his experiences, observations and reflections on Tikopia, its people, cultures and

the changes that have occurred.

C. While engaged in study of the kinship and religious life of the people of Tikopia, Firth made a few observations on their tattooing. Brief though these notes are, they may be worth putting on record as an indication of the sociological setting of the practice in this primitive Polynesian community. The origin of the English word ‘tattoo' actually comes from the Tikopia word 'tatau1. The word for tattoo marks in general is tau， and the operation of tattooing is known as ta tau, ta being the generic term for the act of striking.

D. The technique of tattooing was similar throughout Polynesia. Traditional tattoo artists create their indelible tattoos using pigment made from the candlenut or kukui nut. First, they bum the nut inside a bowl made of half a coconut shell. They then scrape out the soot and use a pestle to mix it with liquid. Bluing is sometimes added to counteract the reddish hue of the carbon-based pigment. It also makes the outline of the inscribed designs bolder on the dark skin of tattooing subjects.

E. For the instruments used when tattooing, specialists used a range of chisels made from albatross wing bone which were hafted onto a handle which was made from the heartwood of the bush and struck with a mallet. The tattooer began by sketching with charcoal a design on the supine subject, whose skin at that location was stretched taut by one more apprentice. The tattooer then dipped the appropriate points - either a single one or a whole comb into the ink (usually contained in a coconut-shell cup) and tapped it into the subject's skin, holding the blade handle in one hand and tapping it with the other. The blood that usually trickled from the punctures was wiped away either by the tattooer or his apprentice, the latter having also served by restraining a pain-wracked subject from moving, for the operation was inevitably painful a test of fortitude that tattooers sought to shorten by working as fast as possible. In fact, tattoos nearly always festered and often led to sickness - and in some cases death.

F. In ancient Polynesian society, nearly everyone was tattooed. It was an integral part of ancient culture and was much more than a body ornament. Tattooing indicated ones genealogy and/or rank in society. It was a sign of wealth, of strength and of the ability to endure pain. Those who went without them were seen as persons of lower social status. As such, chiefs and warriors generally had the most elaborate tattoos. Tattooing was generally begun at adolescence and would often not be completed for a number of years. Receiving a tattoo constituted an important milestone between childhood and adulthood, and was accompanied by many rites and rituals. Apart from signaling status and rank, another reason for the practice in traditional times was to make a person more attractive to the opposite sex.

G. The male facial tattoo is generally divided into eight sections of the face. The center of the forehead designated a person's general rank. The area around the brows designated his position. The area around the eyes and the nose designated his hapu, or sub-tribe rank. The area around the temples served to detail ms marital status, like the number of marriages. The area under the nose displayed his signature. This signature was once memorized by tribal chiefs who used it when buying property, signing deeds, and officiating orders. The cheek area designated the nature of the person's work. The chin area showed the person's mana. Lastly, the jaw area designated a person's birth status.

H. A person's ancestry is indicated on each side of the face. The left side is generally the father's side, and the right side was the mother's. The manutahi design is worked on the men's back. It consists of two vertical lines drawn down the spine, with short vertical lines between them. When a man had the manutahi on his back, he took pride in himself. At gatherings of the people he could stand forth in their midst and display his tattoo designs with songs. And rows of triangles design on the men's chest indicate his bravery.

I. The tattoo was a way of delivering information of its owner. It's also a traditional method to fetch spiritual power, protection and strength. The Polynesians use this as a sign of character, position and levels in a hierarchy. Polynesian peoples believe that a person's mana, their spiritual power or life force, is displayed through their tattoo.

Questions 1-4

Instructions to follow

- Do the following statements agree with the information given in the text? Write
  TRUE if the statement agrees with the information
  FALSE if the statement contradicts the information
  NOT GIVEN if there is no information on this

1. Scientists like to do research in Tikopia because this tiny place is of great remoteness.
2. Firth was the first scholar to study on Tikopia.
3. Firth studied the culture differences on Tikopia as well as on some other islands of Pacific.
4. The English word 'tattoo' is evolved from the local language of the island.

Questions 5-9

Instructions to follow

- Label the diagram below.
- Choose NO MORE THAN TWO WORDS from the passage for each answer.

bowl made of 5 .....
burn the material inside to get 6 ....,
and stir in the 7 .....

produced from 8 ..... of small trees

produced from 9 .....of seabird

Questions 10-14

Instructions to follow

- Complete the table below. Choose NO MORE THAN TWO WORDS from the passage for each answer.

LOCATION ON THE BODY	SIGNIFICANCE	GEOMETRIC PATTERNS
10 _____ of male face	general rank	
11 _____ of male face	prestige	
Female's right side of the face	12 _____	
Male back	Sense of pride	13 _____
Male chest	bravery	14 _____

Section 2

Instructions to follow

- You should spend 20 minutes on Questions 14-27 which are based on Reading Passage 2

Brand Loyalty Runs Deep

A. At almost any supermarket in Sydney, Australia, food from all over the world fills the shelves. Perhaps you fancy some Tick Tock Rooibos tea made in South Africa, or some Maharaja's Choice Rogan Josh sauce from India. Alongside local Foster's beer, Chinese Tsingtao and Indonesian Bintang are both to be found. For homesick Britons, the confectionary aisle is stocked with Mars Bars and Bountys, while for pining Poles sweets manufactured by firms like Wawel or Solidarnosc are available. Restaurants in Sydney range from Afghan to Zambian, catering for different ethnic groups as well as the rest of the curious general public.

B. All of this variety is a result of population movement and changes in global trade, and, to a lesser extent, reduced production and transportation costs. While Australia can claim around 40% of its population as the first generation, other countries, like Switzerland, may have fewer international migrants, but still, have people who move from city to city in search of work. Even since the 1990s, taxes or tariffs on imported goods have decreased dramatically. The World Trade Organisation, for example, has promulgated the idea of zero tariffs, which has been adopted into legislation by many member states. It is estimated that within a century, agriculture worldwide has increased its efficiency five-fold. Faster and better-integrated road and rail services, containerisation, and the ubiquitous aeroplane have sped up transport immeasurably.

C. Even with this rise in the availability of non-local products, recent studies suggest that supermarkets should do more to increase their number to match more closely the proportion of shoppers from those countries or regions. Thus, if 10% of a supermarket's customers originate in Vietnam, there ought to be 10% Vietnamese products in store. If Americans from southern states dominate in one northern neighbourhood, southern brands should also be conspicuous. Admittedly, there are already specialist shops that cater to minority groups, but minorities do frequent supermarkets.

D. Two separate studies by Americans Bart Bronnenberg and David Atkin have found that brand loyalty (choosing Maharaja's Choice over Patak's, or Cadbury's over Nestlé) is not only determined by advertising, but also by a consumer's past. If a product featured in a person's early life in one place, then, as a migrant, he or she is likely to buy that same product even though it is more expensive than an otherwise identical locally-produced one.

E. In the US context, between 2006 and 2008, Bronnenberg analysed data from 38,000 families who had bought 238 different kinds of packaged goods. Although the same brands could be found across America, there were clear differences in what people purchased. In general, there were two leading brands in each kind of packaged goods, but there were smaller brands that assumed a greater proportion of consumers' purchases than was statistically likely. One explanation for this is that 16% of people surveyed came from interstate, and these people preferred products from their home states. Over time, they did buy more products from their adopted state, but, surprisingly, it took two decades for their brand loyalty to halve. Even people who had moved interstate 50 years previously maintained a preference for home-state brands. It seems the habits of food buying change more slowly than we think.

F. Bronnenberg's findings were confirmed by Atkin's in India although there was something more unexpected that Atkin discovered. Firstly, during the period of his survey, the cost of all consumables rose considerably in India. As a result, families reduced their spending on food, and their caloric intake fell accordingly. It is also worth noting that although India is one country, states impose tariffs or taxes on products from other Indian states, ensuring that locally-produced goods remain cheaper. As in the US, internal migrants bought food from their native place even when it was considerably more expensive than local alternatives, and at a time when you might expect families to be economising. This element made the brand-loyalty theory even more convincing.

G. There is one downside to these findings. In relatively closed economies, such as India's, people develop tastes that they take with them wherever they go; in a more globalised economy, such as America's, what people eat may be more varied, but still dependent on early exposure to brands. Therefore, according to both researchers, more advertising may now be directed at minors since brand loyalty is established in childhood and lasts a lifetime. In a media-driven world where children are already bombarded with information, their parents may not consider it appropriate yet more advertising is hardly welcome.

H. For supermarkets, this means that wherever there are large communities of expatriates or immigrants, it is essential to calculate the demographics carefully in order to supply those shoppers with their favourite brands as in light of Atkin and Bronnenberg's research, advertising and price are not the sole motivating factors for purchase as was previously thought.

Questions 15-19

Instructions to follow

- Choose the correct letter A, B, C or D. Write the correct letter in boxes 15-19 on your answer sheet.

A In this article, the writer refers to food products that are sold

- A at markets.
- B wholesale.
- C online.
- D retail.

16 In Sydney, shoppers can buy beer from

- A China and Indonesia.
- B India and South Africa.
- C Poland.
- C Vietnam.

17 The greater variety of goods and brands now available is mainly due to:

- A cheaper production and more migration.
- A changes in migration and international trade.
- C cheaper production and transport.
- C changes in migration and transport.

C The writer thinks supermarkets …… should change their products slightly.

A in Australia

A in India and the US

C in Switzerland

D worldwide

19 The writer suggests that:

A the quality of products at specialist shops will always be better than at supermarkets.

A specialist shops will close down because supermarkets will be cheaper.

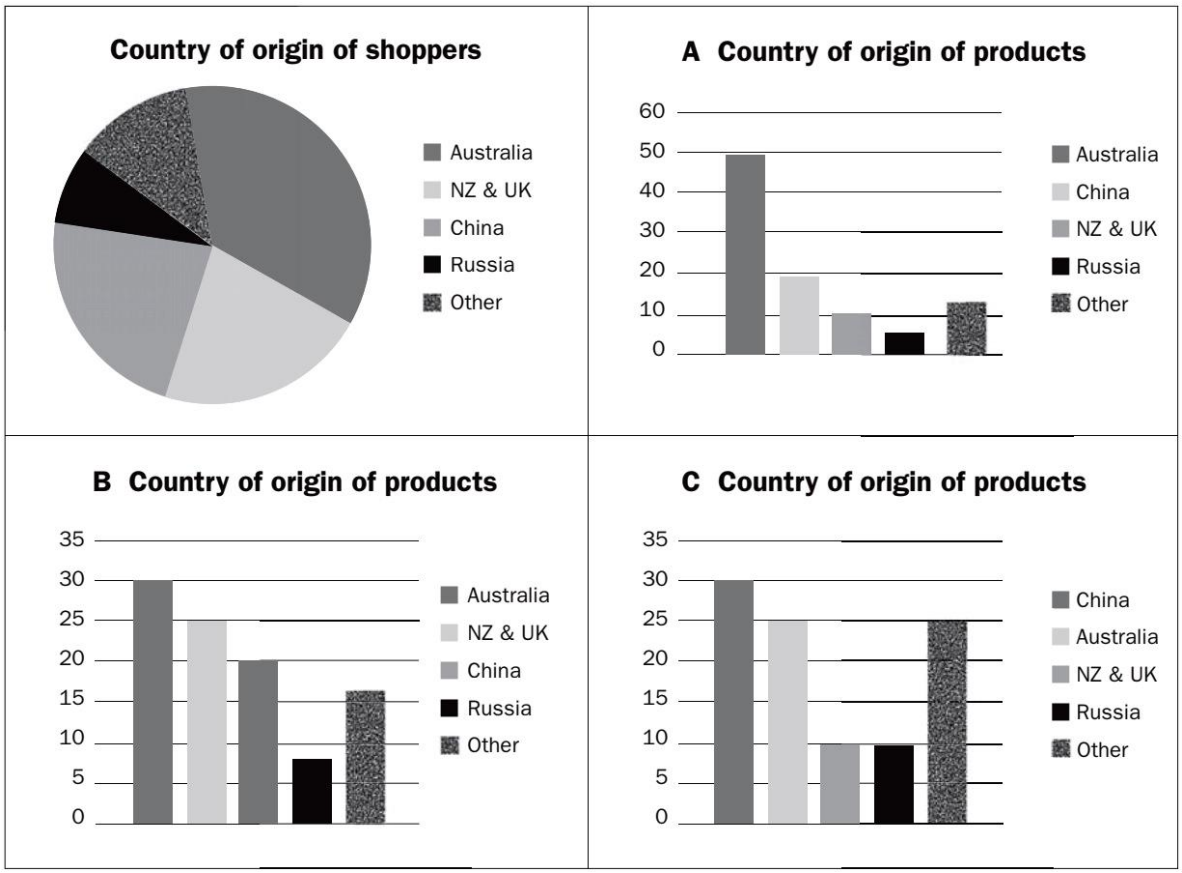
C specialist shops already supply minority groups, so supermarkets shouldn't bother.

C specialist shops already supply minority groups, yet supermarkets should compete with them.

Question 20

Instructions to follow

- Write chart below – A, B or C – best describes the relationship between shoppers at one Sydney supermarket, and what research suggests that same supermarket should sell?
- Write your answer in box 20 on your answer sheet.



Questions 21-27

Instructions to follow

- Which study/studies do the following statements relate to? In boxes 21-27 on your answer sheet, write:

A if the information relates only to Atkin's study

B if the information relates only to Bronnenberg's study

C if the information relates to both Atkin's and Bronnenberg's studies

21 There was a correlation between brands a shopper used in childhood, and his or her preferences as an adult.

22 One reason for the popularity of smaller brands was that many people surveyed came from another state where those brands were bigger.

23 Even living in a new state for a very long time did not mean that shoppers chose new brands.

24 In general, food became more expensive during the time of the study. Despite this, families bought favourite brands and ate less.

A ○ B ○ C ○

25 Taxes on products from other states also increased the cost of food. This did not stop migrants from buying what they were used to.

A ○ B ○ C ○

26 Children may be the target of more food advertising now.

A ○ B ○ C ○

27 Advertising and price were once thought to be the main reasons for buying products. This theory has been modified now.

A ○ B ○ C ○

Section 3

Instructions to follow

- You should spend 20 minutes on Questions 28-40 which are based on Reading Passage 3

Animal Personhood

A. Aristotle, a 4th-century-BC Greek philosopher, created the Great Chain of Being, in which animals, lacking reason, ranked below humans. The Frenchman, Rene Descartes, in the 17th century AD, considered animals as more complex creatures; however, without souls, they were mere automatons. One hundred years later, the German, Immanuel Kant, proposed animals are treated less cruelly, which might seem an improvement, but Kant believed this principally because he thought acts of cruelty affect their human perpetrators detrimentally. The mid-19th century saw the Englishman, Jeremy Bentham, questioning not their rationality or spirituality, but whether animals could suffer irrespective of the damage done to their victimisers; he concluded they could; and, in 1824, the first large organisation for animal welfare, the Royal Society for the Prevention of Cruelty to Animals, was founded in England. In 1977, the Australian, Peter Singer, wrote the highly influential book Animal liberation, in which he debated the ethics of meat-eating and factory farming, and raised awareness about inhumane captivity and experimentation. Singer's title deliberately evoked other liberation movements, like those for women, which had developed in the post-war period.

B. More recently, an interest in the cognitive abilities of animals has resurfaced. It has been known since the 1960s that chimpanzees have sophisticated tool use and social interactions, but research from the last two decades has revealed they are also capable

of empathy and grief, and they possess self-awareness and self-determination. Other primates, dolphins, whales, elephants, and African grey parrots are highly intelligent too. It would seem that with each new proof of animals' abilities, questions are being posed as to whether creatures so similar to humans should endure the physical pain or psychological trauma associated with habitat loss, captivity, or experimentation. While there may be more laws protecting animals than 30 years ago, in the eyes of the law, no matter how smart or sentient an animal may be, it still has a lesser status than a human being.

C. Steven Wise, an American legal academic, has been campaigning to change this. He believes animals, like those listed above, are autonomous - they can control their actions, or rather, their actions are not caused purely by reflex or from innateness. He wants these animals categorized legally as nonhuman persons because he believes existing animal-protection laws are weak and poorly enforced. He famously quipped that an aquarium may be fined for cruel treatment of its dolphins but, currently, the dolphins can't sue the aquarium.

D. While teaching at Vermont Law School in the 1990s, Wise presented his students with a dilemma: should an anencephalic baby be treated as a legal person? (Anencephaly is a condition where a person is born with a partial brain and can breathe and digest, due to reflex, but otherwise is barely alert, and not autonomous.) Overwhelmingly, Wise's students would say 'Yes'. He posed another question: could the same baby be killed and eaten by humans? Overwhelmingly, his students said 'No' His third question, always harder to answer, was: why is an anencephalic baby legally a person yet not so a fully functioning bonobo chimp?

E. Wise draws another analogy: between captive animals and slaves. Under slavery in England, a human was a chattel, and if a slave were stolen or injured, the thief or violator

could be convicted of a crime, and compensation paid to the slave's owner though not to the slave. It was only in 1772 that the chief justice of the King's Bench, Lord Mansfield, ruled that a slave could apply for habeas corpus, Latin for: '"You must have the body', as few men and women had done since ancient times. Habeas corpus does not establish innocence or guilt; rather, it means a detainee can be represented in court by a proxy. Once slaves had been granted habeas corpus, they existed as more than chattels within the legal system although it was another 61 years before slavery was abolished in England. Aside from slaves, Wise has studied numerous cases in which a writ of habeas corpus had been filed on behalf of those unable to appear in court, like children, patients, prisoners, or the severely intellectually impaired. In addition, Wise notes there are entities that are not living people that have legally become non-human persons, including ships, corporations, partnerships, states, a Sikh holy book, some Hindu idols and the 'Wanganui River in New Zealand.

F. In conjunction with an organisation called the Non-human Rights Project (NhRP), Wise has been representing captive animals in US courts in an effort to have their legal status reassigned. Thereafter, the NhRP plans to apply, under habeas corpus, to represent the animals in other cases. Wise and the NhRP believe a new status will discourage animal owners or nation-states from neglect or abuse, which current laws fail to do. Richard Epstein, a professor of law at New York University, is a critic of Wise's. His concern is that if animals are treated as independent holders of rights there would be little left of human society, in particular, in the food and agricultural industries. Epstein agrees some current legislation concerning animal protection may need overhauling, but he sees no underlying problem.

G. Other detractors say that the push for personhood misses the point: it focuses on animals that are similar to humans without addressing the fundamental issue that all species have

an equal right to exist. Thomas Berry, of the Gaia Foundation, declares that rights do not emanate from humans but from the universe itself, and, as such, all species have the right to existence, habitat, and role (be that predator, plant, or decomposer). Dramatically changing human behaviour towards other species is necessary for their survival - and that doesn't mean declaring animals as non-human persons.

H. To date, the NhRP has not succeeded in its applications to have the legal status of chimpanzees in New York State changed, but the NhRP considers it some kind of victory that the cases have been heard. Now, the NhRP can proceed to the Court of Appeals, where many emotive cases are decided, and where much common law is formulated.

I. Despite setbacks, Wise doggedly continues to expose brutality towards animals. Thousands of years of perceptions may have to be changed in this process. He may have lost the battle, but he doesn't believe he's lost the war.

Questions 28-33

Instructions to follow

- Choose the correct letter A, B, C or D.
- Write the correct letter in boxes 28-33 on your answer sheet.

28 Why did Aristotle place animals below human beings?

A He doubted they behaved rationally.

A He thought them less intelligent.

C He considered them physically weaker.

C He believed they did not have souls.

29 Why did Kant think humans should not treat animals cruelly?

- A Animals were important in agriculture.
- A Animals were used by the military.
- C Animals experience pain in the same way humans do.
- C Humans' exposure to cruelty was damaging to themselves.

D What concept of animals did Bentham develop?

- A The existence of their suffering
- A The magnitude of their suffering
- C Their surprising brutality
- C Their surprising spirituality

31 Where and when was the RSPCA founded?

- A In Australia in 1977
- A In England in 1824
- C In Germany in 1977
- C In the US in 1824

32 Why might Singer have chosen the title Animal Liberation for his book?

- A He was a committed vegetarian.
- A He was concerned about endangered species.
- C He was comparing animals to other subjugated groups.
- C He was defending animals against powerful lobby groups.

33 What has recent research shown about chimpanzees?

- A They have equal intelligence to dolphins.
- A They have superior cognitive abilities to most animals.
- C They are rapidly losing their natural habitat.
- D They are far better protected now than 30 years ago.

Questions 34-40

Instructions to follow

- Complete the summary below. Choose NO MORE THAN TWO WORDS from the passage for each answer.
- Write your answer in boxes 34-40 on your answer sheet.

A new legal status for animals	
Arguments for:	Steven Wise believes some highly intelligent animals that are 34..... should have a new legal status. While animals are not humans, the law has a status for 35..... already applied to ships, companies, and a river in New Zealand. If the legal status of animals were changed, Wise and the NhRP could file for 36....., where a detainee is represented by someone else. Then, they could take more effective action against animal abusers.
Arguments against	Richard Epstein believes the 37..... of animals is important, but if animals had rights, the cost to human society would be too great. Others, like Thomas Berry, argue that rights are bestowed by the universe

	and not by humans. Furthermore, 38..... species have an equal right to exist.
Current situation in US	Although the NhRP has not 39.....in having the legal status of any animals altered, it continues its struggle. Changing two millennia's worth of 40..... could prove difficult.

IELTS Reading Test 12

Section 1

Instructions to follow

- You should spend 20 minutes on Questions 1-13 which are based on Reading Passage 1

Networking

Networking as a concept has acquired what is in all truth an unjustified air of modernity. It is considered in the corporate world as an essential tool for the modern businessperson, as they trot round the globe drumming up business for themselves or a corporation. The concept is worn like a badge of distinction, and not just in the business world.

People can be divided basically into those who keep knowledge and their personal contacts to themselves, and those who are prepared to share what they know and indeed their friends with others. A person who is insecure, for example, someone who finds it difficult to share information with others and who is unable to bring people, including friends, together does not make a good networker. The classic networker is someone who is strong enough within themselves to connect different people including close friends with each other. For example, a businessman or an academic may meet someone who is likely to be a valuable contact in the future, but at the moment that person may benefit from meeting another associate or friend.

It takes quite a secure person to bring these people together and allow a relationship to develop independently of himself. From the non-networker's point of view, such a development may be intolerable, especially if it is happening outside their control. The

unfortunate thing here is that the initiator of the contact if he did but know it, would be the one to benefit most. And why?

Because all things being equal, people move within circles and that person has the potential of being sucked into ever-growing spheres of new contacts. It is said that, if you know eight people, you are in touch with everyone in the world. It does not take much common sense to realize the potential for any kind of venture as one is able to draw on the experience of more and more people.

Unfortunately, making new contacts, business or otherwise, while it brings success, does cause problems. It enlarges the individual's world. This is in truth not altogether a bad thing, but it puts more pressure on the networker through his having to maintain an ever-larger circle of people. The most convenient way out is, perhaps, to cull old contacts, but this would be anathema to our networker as it would defeat the whole purpose of networking. Another problem is the reaction of friends and associates. Spreading oneself thinly gives one less time for others who were perhaps closer to one in the past. In the workplace, this can cause tension with jealous colleagues, and even with superiors who might be tempted to rein in a more successful inferior. Jealousy and envy can prove to be very detrimental if one is faced with a very insecure manager, as this person may seek to stifle someone's career or even block it completely.

The answer here is to let one's superiors share in the glory; to throw them a few crumbs of comfort. It is called leadership from the bottom. In the present business climate, companies and enterprises need to co-operate with each other in order to expand. As globalization grows apace, companies need to be able to span not just countries but continents. Whilst people may rail against this development it is for the moment here to stay. Without cooperation and contacts, specialist companies will not survive for long.

Computer components, for example, need to be compatible with the various machines on the market and to achieve this, firms need to work in conjunction with others. No business or institution can afford to be an island in today's environment. In the not very distant past, it was possible for companies to go it alone, but it is now more difficult to do so.

The same applies in the academic world, where ideas have been jealously guarded. The opening-up of universities and colleges to the outside world in recent years has been of enormous benefit to industry and educational institutions. The stereotypical academic is one who moves in a rarefied atmosphere living a life of sometimes splendid isolation, a prisoner of their own genius. This sort of person does not fit easily into the mould of the modern networker. Yet even this insular world is changing. The ivory towers are being left ever more frequently as educational experts forge links with other bodies; sometimes to stunning effect as in Silicon Valley in America and around Cambridge in England, which now has one of the most concentrated clusters of high-tech companies in Europe.

It is the networkers, the wheeler-dealers, the movers and shakers, call them what you will, that carry the world along. The world of the Neanderthals was shaken between 35,000 and 40,000 BC; they were superseded by Homo Sapiens with the very 'networking' skills that separate us from other animals: understanding thought abstraction and culture, which are inextricably linked to planning survival and productivity in humans. It is said the meek will inherit the earth. But will they?

Questions 1-5

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1? In boxes 1-5 on your answer sheet, write:
  YES if the statement agrees with the writer's claims
  NO if the statement contradicts the writer's claims
  NOT GIVEN if it is impossible to say what the writer thinks about this

Example	Answer
Networking is a concept	Yes

1. Networking is not a modern idea.
2. Networking is worn like a badge exclusively in the business world.
3. People fall into two basic categories.
4. A person who shares knowledge and friends makes a better networker than one who does not.
5. The classic networker is physically strong and generally in good health.

Questions 6-10

Instructions to follow

- Using NO MORE THAN THREE WORDS from the passage, complete the sentences below.

6. Making new acquaintances ..... but also has its disadvantages.
7. At work, problems can be caused if the manager is .....
8. A manager can suppress, or even totally ..... the career of an

employee.

9 In business today, working together is necessary in order for ..... to grow.

10 Businesses that specialize will not last for long without .....

Questions 11-13

Instructions to follow

- Using NO MORE THAN THREE WORDS from the passage, complete the sentences below.

11 In which sphere of life have ideas been protected jealously? .....

12 Which type of individual does not easily become a modern networker? .....

13 Where is one of the greatest concentrations of high-tech companies in Europe? .....

Section 2

Instructions to follow

- You should spend about 20 minutes on Questions 14-27, which are based on Reading Passage 2.

Money As The Unit Of Account

A. The most difficult aspect of money to understand is its function as a unit of account. In linear measurement we find the definition of a yard, or a metre, easy to accept. In former times these lengths were defined in terms of fine lines etched onto brass rods maintained in standard laboratories at constant temperatures. Money, however, is much more difficult to define because the value of anything is ultimately in the mind of the observer, and such values will change with time and circumstance.

Sir Isaac Newton, as Master of the Royal Mint, defined the pound sterling (£) in 1717 as 113 grains of pure gold. This took Britain off silver and onto gold as defining the unit of account. The pound was 113 grains of pure gold, the shilling was 1/20 of that, and the penny 1/240 of it.

By the end of the 19th century, the gold standard had spread around most of the trading world, with the result that there was a single world money. It was called by different names in different countries, but all these supposedly different currencies were rigidly interconnected through their particular definition in terms of a quantity of gold.

B. In economic life the prices of different commodities and services are always changing with respect to each other. If the potato crop, for example, is ruined by frost or flood, then the

price of potatoes will go up. The consequences of that particular price increase will be complex and unpredictable. Because of the high price of potatoes, prices of other things will decline, as demand for them declines. Similarly, the argument that the Middle East crisis following the Iraqi annexation of Kuwait would, because of increased oil prices, have led to sustained general inflation is, although widely accepted, entirely without foundation. With sound money (money whose purchasing power does not decline over time) a sudden price shock in any one commodity will not lead to a general price increase, but to changes in relative prices throughout the economy. As oil increases, other goods and services will drop in price, and oil substitutes will rise in price, as the consequences of the oil price increase work their unpredictable and complex way through the economy.

The use of gold as the unit of account during the days of the gold standard meant that the price of all other commodities and services would swing up and down with reference to the price of gold, which was fixed. If gold supplies diminished, as they did when the 1850s gold rushes in California and Australia were finishing, then deflation (a general price level decrease] would set in. When new gold rushes followed in South Africa and again in Australia, in the 1880s and 1890s, the general price level increased, gently, around the world, as there was more money in circulation.

C. The end of the gold standard began with the introduction of the Bretton-Woods Agreement in 1946. This fixed the value of all world currencies relative to the US dollar, which in turn was fixed to a specific value of gold (US$0.35/oz). However, in 1971 the US government finally refused to exchange US dollars for gold, and other countries soon followed. Governments printed as much paper money or coinage as they wanted, and the more that was printed, the less each unit of currency was worth.

The key problem with these government 'fiat' currencies is that their value is not defined;

such value is subject to how much money a government cares to print. Their future value is unpredictable, depending as it does on political chance. In past economic calculations of the Australian Institute for Public Policy, incomes and expenditures were automatically converted to dollars of a particular year, using CPI deflators, which are stored in the Institute's computers. When the Institute performs economic calculations into the future, it guesses at inflation rates and includes these guesses in its figures. The guesses are entirely based on past experience. In Australia most current calculations assume a three to four per cent inflation rate.

D. The great advantage of the 19th century gold standard was not just that it defined the unit of account, but that it operated throughout almost the entire world. Anthony Trollope tells us in his diaries about his Australian travels in 1872 that a pound of meat, selling in Australia for twopence, would have cost tenpence or even a shilling in the UK. It was this price difference which drove investment and effort into the development of shipboard refrigeration, and opening up of major new markets for Australian meat, at great benefit to the British public.

Today we can determine price differences between countries by considering the exchange rate of the day. In twelve months' time, even a month's time, however, a totally different situation may prevail, and investments of time and money made on the basis of an opportunity at an exchange rate of the day, may actually perform poorly because of subsequent exchange rate movements.

The great advantage of having a single stable world currency is that such currency would have very high information content. It tells people where to invest their time, energy and capital, all around the world, with much greater accuracy and predictability than would otherwise be possible.

Questions 14-17

Instructions to follow

- Reading Passage 2 has four sections, A-D.
- Choose the correct heading for each section from the list of headings below.
- Write the correct number, i-vii, in boxes 14-17 on your answer sheet.

List of Headings

i The effects of inflation

ii The notion of money and its expression

iii The rise of problematic modern currencies

iv Stable money compared to modern 'fiat' currencies

v The function of money

vi The interrelationship of prices

vii Stability of modern currencies

14 ..... SECTION A

A ..... SECTION B

16 ..... SECTION C

17 ..... SECTION D

Questions 18-22

Instructions to follow

- Look at the following causes and the list of results below.
- Match each cause with the appropriate result.
- Write the correct letter, A-I, in boxes 18-22 on your answer sheet.

18 Oil prices rise. .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

19 The price of potatoes goes up. .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

20 Gold was the unit of account. .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

21 The amount of gold available went down. .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

22 Meat in Australia was cheaper than elsewhere. .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

List of Results

C The price of goods fluctuated in relation to a fixed gold price

B People developed techniques of transporting it to other places.

C Oil substitutes become more expensive

D More people went to live in Australia

E The price of other things goes down, because fewer people could afford to buy them

F The price of commodities remained fixed

G There is no observable effect.

H All prices went down,everywhere.

I Oil substitutes drop in price

Questions 23-27

Instructions to follow

- Write the appropriate letter, A, B, or C in boxes 23-27 on your answer sheet.
- Classify the following characteristics as belonging to

A Money based on a gold standard

B Government 'fiat' monopoly currencies

C Both money based on a gold standard and 'fiat' currencies

23 it has a clearly defined value

A ○ B ○ C ○

24 its value by definition varies over time

25 its future value is predictable

26 its past value can be calculated

27 it makes international investment easier

Section 3

Instructions to follow

- You should spend 20 minutes on Questions 28-40 which are based on Reading Passage 3

Walking on water

The availability of groundwater has always been taken for granted by Australians. Groundwater supplies have in prior times been perceived as a resource of infinite bounds – the prevailing mindset was “out of sight out of mind”. This has all changed with the modern epoch. Persistent neglect has resulted in numerous complications for groundwater users and many interest groups have great stake in its management and allocation. Over-allocation of surface water and persistent water shortages mean that reliance of groundwater supplies is expected to swell.

The main point of concern now is whether or not a groundwater source can deliver a sustainable yield. This relies on a proper management of discharge (outflow) and recharge (inflow) rates. Discharge occurs when humans extract water as well as through vegetation and evaporation into the atmosphere. Sustainable use therefore depends on more than keeping within the recharge rate: if humans use water at precisely the recharge rate, discharge through other ways can be adversely affected.

Queensland has been one of the most active states in managing groundwater supplies. This is because the territory sits atop the Great Artesian Basin (GAB) an expansive underwater aquifer that covers nearly one-fifth of the Australian continent. This resource has long been used by indigenous people and outback communities, particularly in times

of drought (when surface water could dry up for hundreds of kilometres on end). Since farmers at Kerribee pioneered the use of bores in the country, the number has spiralled beyond sustainable levels and caused water pressure and flow rates across the region to decline. Furthermore, estimates indicate that 80% of GAB outflow is wasted because of inefficient and out-dated delivery systems. Open drains used to keep livestock hydrated are a particular scourge – much water is lost due to seepage and evaporation.

A number of initiatives have been undertaken to help stem this problem. The Queensland government declared in 2005 a moratorium on issuing new licences for water extraction from GAB. A strategy group known as the Great Artesian Basin Consultative Council has also published a management plan that involved capping some bores (to prevent further declines in pressure) and rehabilitating hundreds of other bores and bore drains with troughs and polyester piping (to prevent water seeping into the earth).

It is now also apparent that corruption of groundwater supplies by humans is going to be an issue to contend with. In 2006, thousands of Sydney residents had their groundwater usage curtailed due to industrial pollution of the Botany Stands aquifer. Bore water for any domestic purposes has since been off limits due to chemical seepage from an estimated 8 industrial sites.

Nevertheless, groundwater plans continue apace. Development of a controversial desalination plant has been postponed indefinitely while the feasibility of exploiting two aquifers near Sydney is explored. Authorities intend to use the aquifers to provide up to 30 gigalitres of water a year during dry spells and then leave them alone to replenish during higher rainfall years. But the proposed scheme it riddled with difficulties: low flow rates are hampering extraction: replenishment rates are lower than expected, and salinity imbalances caused by the procedure could wreak havoc on efforts to preserve wetland

flora and fauna ecosystems that rely on a plentiful, clean and steady supply of water from the aquifers.

It is not too late to turn groundwater into a sustainable resource. Groundwater is renewable through surface runoff (and, at a much slower rate, in organic springs where it is literally drip fed through rock on its way to aquifers). At present however, experts believe excessive amounts of groundwater are being squandered on aesthetic projects such as keeping parks, gardens and golf courses green.

Aside from more judicious use of groundwater, many experts also believe that we need to look at harnessing other potential sources in order to meet our water needs. During rainy seasons for example urban areas are inundated with storm water and flash flooding that can bring cities to a standstill. Better storm water control mechanisms could potentially capture and preserve this rainwater for use at a later date.

Questions 28-31

Instructions to follow

- Choose FOUR letter A-J. Write the correct letters A-J in boxes 28-31 on your answer sheet.
- The Writer mentions a number of uses of groundwater in Australia. Which FOUR of the following uses are mentioned by the writer of the test?

A maintaining recreational areas

B helping sewer systems function

C providing opportunities for underground adventure sports

D supporting wildlife habitats

E storing excess amounts of surface water in cities

F naturally removing salt content from water

G personal household use

H forming hot springs for bathing

I providing water for animals

J dumping toxic waste products

28 .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

29 .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

30 .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

31 .....

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

Questions 32-35

Instructions to follow

- Do the following statements agree with the information given in the text? Write
  TRUE if the statement agrees with the information
  FALSE if the statement contradicts the information
  NOT GIVEN if there is no information on this

32 Australians have always seen groundwater as a precious resource.

33 Use of groundwater is predicted to increase.

34 Humans cannot alter the recharge rate of groundwater.

35 Using water at the recharge rate or lower will ensure sustainable use.

Questions 36-40

Instructions to follow

- Complete each sentence with the correct ending A-I below.

36 Outback communities

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

37 Farmers at Kerribee station

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

38 In 2005, Queensland authorities

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

39 The Great Artesian Basin Consultative Committee

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○

40 Some residents in Sydney

A ○ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○

J ○

C took action to stop more people from being able to use groundwater.

B released a plan to improve bores and lessen wasted water.

C used groundwater to create artificial rivers.

D began a formal register to control access to groundwater.

E decreased the amount of water in movement.

F used their bore holes to dispose of waste products.

H were prevented from using ground water due to contamination.

I relied on ground water during long periods of dry weather.

J were the first to use a bore in Australia.

Answer Keys

Reading Test 1

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	vii	14	ii	28	True
2	i	15	viii	29	False
3	Iv	16	iv	30	Not Given
4	Ii	17	x	31	True
5	Iii	18	i	32	Not Given
6	vi	19	vii	33	Costly
7	Not Given	20	v	34	Gutta-Percha
8	True	21	ix	35	Lead pipe
9	True	22	B	36	Impedance
10	Not Given	23	D	37	James Buchanan
11	False	24	C	38	Camels

12	True	25	By accident	39	Tropical rains
13	False	26	Pollution	40	Several hours
		27	Formed an alliance		

Reading Test 2

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	No	14	Black stripes	27	D
2	No	15	12 million	28	C
3	Not Given	16	Australia	29	E
4	Yes	17	European	30	B
5	Not Given	18	A	31	Environmental
6	Not Given	19	D	32	Light
7	Yes	20	C	33	Multitasking
8	Carbon dioxide	21	B	34	Food
9	NGO	22	A	35	Predator
10	Renewable Energy Law	23	D	36	E
11	Solar, Wind, Biomass	24	B	37	H
12	Technology	25	D	38	B

13	The climate group	26	A	39	B
				40	A

Reading Test 3

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	Role	14	C	27	B
2	Survival	15	F	28	A
3	The wild	16	E	29	D
4	Protection	17	A	30	No
5	Genes	18	C	31	Yes
6	American football	19	D	32	Not Given
7	Passing the ball	20	D	33	No
8	Opinions	21	A	34	Yes
9	Filmed	22	D	35	Not Given
10	Moved her foot	23	Yes	36	No
11	A	24	Not Given	37	C
12	B	25	No	38	E

13	C	26	Not Given	39	A
				40	B

Reading Test 4

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	Transportation	14	Space X	27	Yes
2	Pharmaceuticals	15	US Scientists	28	Not Given
3	Manuscripts	16	Nearly ready	29	No
4	Sublimation	17	Safety	30	Yes
5	Simple drying (techniques)	18	Mother ship	31	B
6	(freeze-drying) chamber	19	Plane	32	C
7	Shelves	20	UN's 1967 Treaty	33	A
8	Freezing coil	21	C	34	D
9	(refrigerator) compressor	22	G	35	B
10	Enzymes	23	F	36	B
11	Composition	24	B	37	F
12	Overheating	25	I	38	E

13	High altitudes	26	E	39	A
				40	D

Reading Test 5

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	False	14	Not Given	27	E
2	Not Given	15	Yes	28	D
3	True	16	No	29	C
4	True	17	Not Given	30	E
5	Not Given	18	Fertilizer	31	A
6	False	19	Lasers	32	B
7	Not Given	20	Cereals	33	C
8	Not Given	21	Communication	34	D
9	A	22	C	35	B
10	B	23	F	36	C
11	C	24	H	37	Generation
12	C	25	A	38	Citizen

13	A	26	D	39	Abstract
				40	Music

Reading Test 6

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	(severe) drought	14	Navigation and communication	27	iii
2	large seeds	15	radiation	28	vii
3	heavy rains	16	antennae	29	i
4	Small seeds	17	smoke	30	iv
5	Finch evolution	18	C	31	ix
6	Medium-sized bills	19	D	32	viii
7	Human population	20	B	33	v
8	rice	21	E	34	ii
9	FALSE	22	A	35	FALSE
10	NOT GIVEN	23	FALSE	36	TRUE
11	TRUE	24	TRUE	37	NOT GIVEN
12	FALSE	25	NOT GIVEN	38	TRUE

13	TRUE	26	NOT GIVEN	39	TRUE
				40	B

Reading Test 7

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	FALSE	14	D	27	NO
2	FALSE	15	B	28	YES
3	TRUE	16	A	29	YES
4	NOT GIVEN	17	C	30	NO
5	TRUE	18	D	31	NOT GIVEN
6	H	19	B	32	B
7	E	20	A	33	C
8	I	21	FALSE	34	C
9	F	22	NOT GIVEN	35	D
10	A	23	TRUE	36	A
11	A	24	TRUE	37	B
12	A	25	NOT GIVEN	38	B
13	C	26	TRUE	39	C

	40	B

Reading Test 8

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	candlewax	14	B	27	B
2	synthetic	15	A	28	C
3	chemistry	16	D	29	C
4	novalak	17	YES	30	ancestors
5	fillers	18	NOT GIVEN	31	Far-fetched
6	hexa	19	NOT GIVEN	32	Climate-warning
7	raw	20	YES	33	Recorded history
8	pressure	21	NO	34	Ice age
9	B	22	A	35	FALSE
10	C	23	B	36	NOT GIVEN
11	TRUE	24	C	37	TRUE
12	FALSE	25	A	38	FALSE
13	FALSE	26	C	39	NOT GIVEN

	40	TRUE

Reading Test 9

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	D	14	B	27	B
2	B	15	G	28	B
3	G	16	A	29	D
4	A	17	H	30	C
5	F	18	D	31	B
6	E	19	C	32	Wood
7	Mississippi	20	C	33	Hospitality
8	London	21	TRUE	34	Status, Wealth
9	The Netherlands	22	FALSE	35	Expensive commodity
10	Berlin	23	FALSE	36	Classical
11	Los Angeles/LA	24	TRUE	37	Furniture, Textiles
12	B	25	FALSE	38	Edwin Lutyens

13	D	26	FALSE	39	Foreign Architects
				40	Local Authorities

Reading Test 10

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	vi	14	F	27	D
2	vii	15	E	28	B
3	i	16	A	29	A
4	iv	17	E	30	C
5	viii	18	B	31	B
6	ii	19	A/C (in any order)	32	C
7	Science	20	C/A (in any order)	33	D
8	Economy	21	A/D (in any order)	34	A
9	Guidelines	22	D/A (in any order)	35	workplace
10	Language	23	TRUE	36	Accquaintances

11	Equipment/resources	24	NOT GIVEN	37	Conversions
12	Master's degree/masters degree	25	NOT GIVEN	38	Internet
13	Respect/status	26	FALSE	39	Cities
				40	A

Reading Test 11

Section 1	Section 2			Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	TRUE	15	D	28	A
2	FALSE	16	A	29	D
3	NOT GIVEN	17	B	30	A
4	TRUE	18	D	31	B
5	Coconut shell	19	D	32	C
6	Soot	20	B	33	B
7	Liquid	21	C	34	autonomous
8	Heartwood	22	C	35	Non-human persons
9	Wing Bone	23	B	36	Habeas corpus
10	(the) forehead	24	A	37	protection
11	Chin (area)	25	A	38	all
12	Mother's ancestry	26	C	39	succeeded

13	Vertical lines	27	C	40	perceptions
14	triangles				

Reading Test 12

Section 1		Section 2		Section 3	
Question	**Answer**	**Question**	**Answer**	**Question**	**Answer**
1	YES	14	ii	28	A
2	NO	15	vi	29	D
3	YES	16	iii	30	G
4	YES	17	iv	31	I
5	NOT GIVEN	18	C	32	FALSE
6	Brings success	19	E	33	TRUE
7	(very) insecure/jealous/envious	20	A	34	NOT GIVEN
8	Block	21	H	35	FALSE
9	Companies and enterprise	22	B	36	H
10	Co-operation and contacts	23	A	37	I
11	(the) academic world	24	B	38	A

12	(the) stereotypical academic	25	A	39	B
13	Cambridge/around Cambridge/Cambridge in England	26	C	40	G
		27	A		