

IELTS

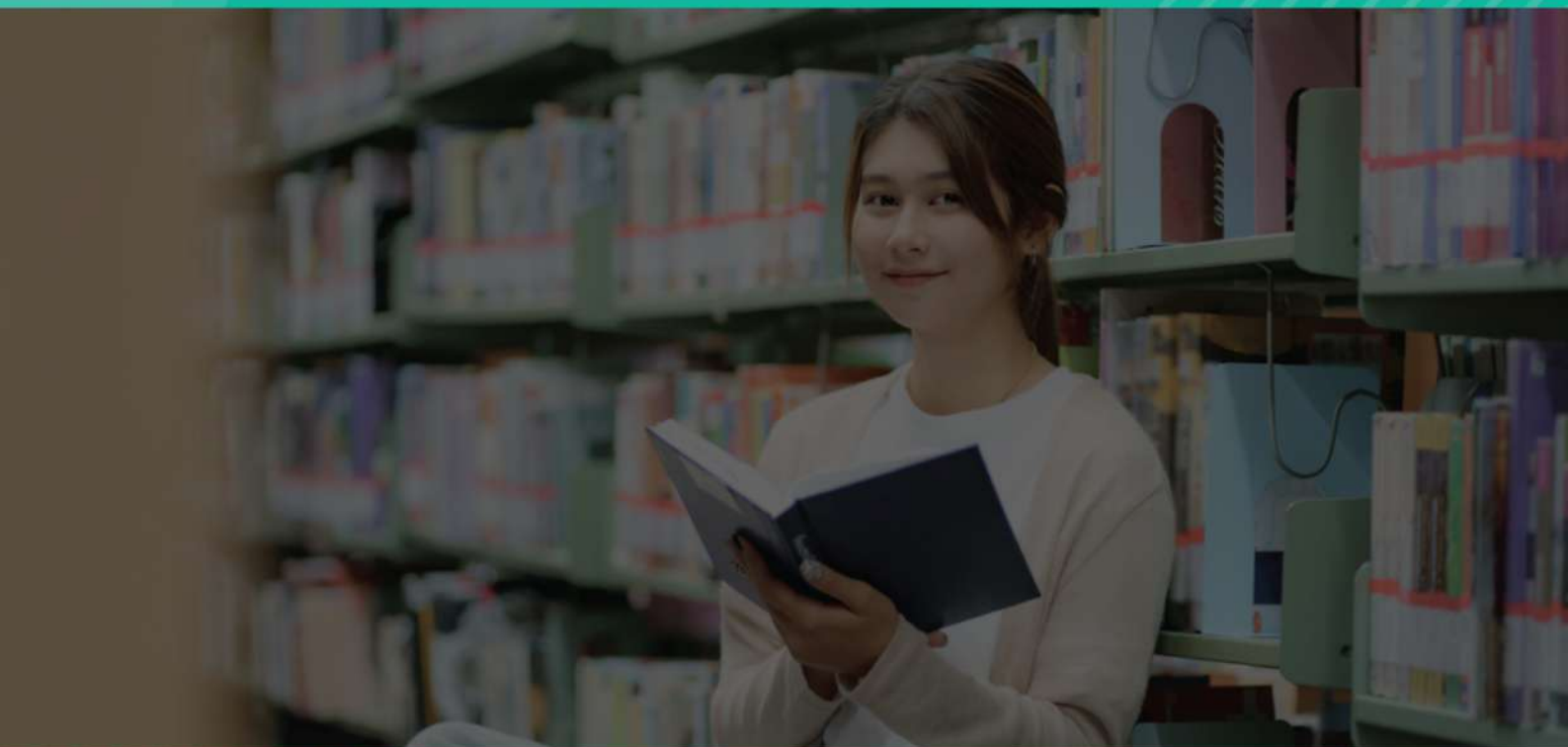
READING

(ACADEMIC)

Actual Tests With Answers

October - November 2022

TARGET SERIES



Published by

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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.

The authors are convinced that you will find IELTS Reading Recent Actual Tests extremely helpful on your path to success with the International English Language Testing System.

Don't just trust luck in your IELTS exam – the key is practice!

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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.

The Concept of Childhood in Western Countries

The history of childhood has been a heated topic in social history since the highly influential book 'Centuries of Childhood', written by French historian Philippe Aries, emerged in 1960. He claimed that 'childhood' is a concept created by modern society.

Whether childhood is itself a recent invention has been one of the most intensely debated issues in the history of childhood. Historian Philippe Aries asserted that children were regarded as miniature adults, with all the intellect and personality that this implies, in Western Europe during the Middle Ages (up to about the end of the 15th century). After scrutinising medieval pictures and diaries, he concluded that there was no distinction between children and adults for they shared similar leisure activities and work; However, this does not mean children were neglected, forsaken or despised, he argued. The idea of childhood corresponds to awareness about the peculiar nature of childhood, which distinguishes the child from adult, even the young adults. Therefore, the concept of childhood is not to be confused with affection for children.

Traditionally, children played a functional role in contributing to the family income in the history. Under this circumstance, children were considered to be useful. Back in the Middle Ages, children of 5 or 6 years old did necessary chores for their parents. During the 16th century, children of 9 or 10 years old were often encouraged or even forced to leave their family to work as servants for wealthier families or apprentices for a trade.

In the 18th and 19th centuries, industrialisation created a new demand for child labour; thus many



children were forced to work for a long time in mines, workshops and factories. The issue of whether long hours of labouring would interfere with children's growing bodies began to perplex social reformers. Some of them started to realise the potential of systematic studies to monitor how far these early deprivations might be influencing children's development.

The concerns of reformers gradually had some impact upon the working condition of children. For example, in Britain, the Factory Act of 1833 signified the emergence of legal protection of children from exploitation and was also associated with the rise of schools for factory children. Due partly to factory reform, the worst forms of child exploitation were eliminated gradually. The influence of trade unions and economic changes also contributed to the evolution by leaving some forms of child labour redundant during the 19th century. Initiating children into work as 'useful' children was no longer a priority, and childhood was deemed to be a time for play and education for all children instead of a privileged minority. Childhood was increasingly understood as a more extended phase of dependency, development and learning with the delay of the age for starting full-time work. Even so, work continued to play a significant, if less essential, role in children's lives in the later 19th and 20th centuries. Finally, the 'useful child' has become a controversial concept during the first decade of the 21st century, especially in the context of global concern about large numbers of children engaged in child labour.

The half-time schools established upon the Factory Act of 1833 allowed children to work and attend school. However, a significant proportion of children never attended school in the 1840s, and even if they did, they dropped out by the age of 10 or 11. By the end of the 19th century in Britain, the situation changed dramatically, and schools became the core to the concept of a 'normal' childhood.

It is no longer a privilege for children to attend school and all children are expected to spend a significant part of their day in a classroom. Once in school, children's lives could be separated from domestic life and the adult world of work. In this way, school turns into an institution dedicated to shaping the minds, behaviour and morals of the young. Besides, education dominated the management of children's waking hours through the hours spent in the classroom, homework (the growth of 'after school' activities), and the importance attached to parental involvement.

Industrialisation, urbanisation and mass schooling pose new challenges for those who are responsible for protecting children's welfare, as well as promoting their learning. An increasing number of children are being treated as a group with unique needs, and are organised into groups



in the light of their age. For instance, teachers need to know some information about what to expect of children in their classrooms, what kinds of instruction are appropriate for different age groups, and what is the best way to assess children's progress. Also, they want tools enabling them to sort and select children according to their abilities and potential.

Questions 1-7

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1? In boxes 1-7 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 Aries pointed out that children did different types of work to adults during the Middle Ages.
- 2 Working children during the Middle Ages were generally unloved.
- 3 Some scientists thought that overwork might damage the health of young children.
- 4 The rise of trade unions majorly contributed to the protection of children from exploitation in the 19th century.
- 5 the aid of half-time schools, most children went to school in the mid-19th century.
- 6 the 20th century, almost all children needed to go to school with a full-time schedule.
- 7 Nowadays, children's needs are much differentiated and categorised based on how old they are.

Questions 8-13

Instructions to follow

- Complete the sentences below.
- Choose NO MORE THAN TWO WORDS AND/OR A NUMBER from the passage for each answer.
- Write your answers in boxes 8-13 on your answer sheet.



- 8 What had not become a hot topic until the French historian Philippe Aries' book caused great attention?
- 9 According to Aries, what was the typical image of children in Western Europe during the Middle Ages?
- 10 What historical event generated the need for a large number of children to work for a long time in the 18th and 19th centuries?
- 11 What bill was enacted to protect children from exploitation in Britain in the 1800s?
- 12 Which activities were becoming regarded as preferable for almost all children in the 19th century?
- 13 In what place did children spend the majority of time during their day in school?





Section 2

Instructions to follow

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

The Study of Chimpanzee Culture

A After studying the similarities between chimpanzees and humans for years, researchers have recognised these resemblances run much deeper than anyone first thought in the latest decade. For instance, the nut cracking observed in the Tai Forest is not a simple chimpanzee behaviour, but a separate adaptation found only in that particular part of Africa, as well as a trait which is considered to be an expression of chimpanzee culture by biologists. These researchers frequently quote the word 'culture' to describe elementary animal behaviours, like the regional dialects of different species of songbirds, but it turns out that the rich and varied cultural traditions chimpanzees enjoyed rank secondly in complexity only to human traditions.

B During the past two years, the major research group which studies chimpanzees collaborated unprecedentedly and documented some distinct cultural patterns, ranging from animals' use of tools to their forms of communication and social customs. This emerging picture of chimpanzees affects how human beings ponder upon these amazing creatures. Also, it alters our conception of human uniqueness and shows us the extraordinary ability of our ancient ancestors to create cultures.

C Although we know that Homo sapiens and Pan Troglodytes have coexisted for hundreds of millennia and their genetic similarities surpass 98 per cent, we still knew next to nothing about chimpanzee behaviour in the wild until 40 years ago. All this began to change in the 1960s when Toshisada Nishida of Kyoto University in Japan and renowned British primatologist Jane Goodall launched their studies of wild chimpanzees at two field sites in Tanzania. (Goodall's research station at Gombe—the first of its kind—is more famous, but Nishida's site at Mahale is the second oldest



chimpanzee research site in the world.)

D During these primary studies, as the chimpanzees became more and more accustomed to close observation, the remarkable discoveries emerged. Researchers witnessed a variety of unexpected behaviours, ranging from fashioning and using tools, hunting, meat eating, food sharing to lethal fights between members of neighbouring communities.

E In 1973, 13 forms of tool use and 8 social activities which appeared to differ between the Gombe chimpanzees and chimpanzee species elsewhere were recorded by Goodall. She speculated that some variations shared what she referred to as a 'cultural origin'. But what exactly did Goodall mean by 'culture'? According to the Oxford Encyclopedic English Dictionary, culture is defined as 'the customs. . .and achievements of a particular time or people.' The diversity of human cultures extends from technological variations to marriage rituals, from culinary habits to myths and legends. Of course, animals do not have myths and legends, but they do share the capacity to pass on behavioural traits from one generation to another, not through their genes but via learning. From biologists' view, this is the fundamental criterion for a cultural trait—something can be learnt by observing the established skills of others and then passed on to following generations.

F What are the implications for chimpanzees themselves? We must place a high value upon the tragic loss of chimpanzees, who are decimated just when finally, we are coming to appreciate these astonishing animals more completely. The population of chimpanzees has plummeted and continued to fall due to illegal trapping, logging and, most recently, the bushmeat trade within the past century. The latter is particularly alarming because logging has driven roadways, which are now used to ship wild animal meat—including chimpanzee meat to consumers as far afield as Europe, into forests. Such destruction threatens not only the animals themselves but also a host of fascinatingly different ape cultures.

G However, the cultural richness of the ape may contribute to its salvation. For example, the conservation efforts have already altered the attitudes of some local people. After several organisations showed videotapes illustrating the cognitive prowess of chimpanzees, one Zairian viewer was heard to exclaim, 'Ah, this ape is so like me, I can no longer eat him.'

H How did an international team of chimpanzee experts perform the most comprehensive survey of the animals ever attempted? Although scientists have been delving into chimpanzee culture for several decades, sometimes their studies contained a fatal defect. So far, most attempts to



document cultural diversity among chimpanzees have solely relied upon officially published accounts of the behaviours reported at each research site. But this approach probably neglects a good deal of cultural variation for three reasons.

I First, scientists normally don't publish an extensive list of all the activities they do not see at a particular location. Yet this is the very information we need to know—which behaviours were and were not observed at each site. Second, there are many reports describing chimpanzee behaviours without expressing how common they are; without this information, we can't determine whether a particular action was a transient phenomenon or a routine event that should be considered part of its culture. Finally, researchers' description of potentially significant chimpanzee behaviours often lacks sufficient detail, which makes it difficult for scientists from other spots to report the presence or absence of the activities.

J To tackle these problems, my colleague and I determined to take a new approach. We asked field researchers at each site to list all the behaviours which they suspected were local traditions. With this information, we assembled a comprehensive list of 65 candidates for cultural behaviours.

K Then we distributed our list to team leaders at each site. They consulted with their colleagues and classified each behaviour regarding its occurrence or absence in the chimpanzee community. The major brackets contained customary behaviour (occurs in most or all of the able-bodied members of at least one age or sex class, such as all adult males), habitual (less common than customary but occurs repeatedly in several individuals), present (observed at the site but not habitual), absent (never seen), and unknown.

Questions 14-18

Instructions to follow

- The Reading Passage 2 has eleven paragraphs A-K.
- Which paragraph contains the following information?
- Write the correct letter, A-K, in boxes 14-18 on your answer sheet.



14 an approach to research on chimpanzees culture that is only based on official sources

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐
J ☐ K ☐

15 mention of a new system designed by two scientists who aim to solve the problem

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐
J ☐ K ☐

16 reasons why previous research on ape culture is problematic

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐
J ☐ K ☐

17 new classification of data observed or collected

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐
J ☐ K ☐

18 an example showing that the tragic outcome of animals leads to an indication of a change in local people's attitude in the preservation

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐
J ☐ K ☐

Questions 19-23



Instructions to follow

- Do the following statements agree with the information given in Reading Passage 2?
In boxes 19-23 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

- 19 The research found that scientists can make chimpanzees possess the same complex culture as human beings.
- 20 Humans and apes lived together long time ago and shared most of their genetic substance.
- 21 Even Toshisada Nishida and Jane Goodall's beginning studies observed many surprising features of civilised behaviours among chimpanzees.
- 22 Chimpanzees, like humans, have the ability to deliver cultural behaviours mostly from genetic inheritance.
- 23 For decades, researchers have investigated chimpanzees by data obtained from both unobserved and observed approaches.

Questions 24-27

Instructions to follow

- Answer the questions below.
- Choose NO MORE THAN THREE WORDS AND/OR A NUMBER from the passage for each answer.
- Write your answers in boxes 24-27 on your answer sheet.

- 24 When did the unexpected discoveries of chimpanzee behaviour start?
- 25 Which country is the researching site of Toshisada Nishida and Jane Goodall?
- 26 What did the chimpanzee have to get used to in the initial study?
- 27



27 What term can be used to depict that Jane Goodall found the chimpanzees in different regions used the different tools in 1973?

Section 3

Instructions to follow

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

Texting the Television

A Once upon a time, if a television show with any self-respect wanted to target a young audience, it needed to have an e-mail address. However, in Europe's TV shows, such addresses are gradually substituted by telephone numbers so that audiences can text the show from their mobile phones. Therefore, it comes as no shock that according to Gartner's research, texting has recently surpassed Internet usage across Europe. Besides, among the many uses of text messaging, one of the fastest-growing uses is to interact with television. The statistics provided by Gartner can display that 20% of French teenagers, 11% in Britain and 9% in Germany have responded to TV programmes by sending a text message.

B This phenomenon can be largely attributed to the rapid growth of reality TV shows such as 'Big Brother', where viewers get to decide the result through voting. The majority of reality shows are now open to text-message voting, and in some shows like the latest series of Norway's 'Big Brother', most votes are collected in this manner. But TV-texting isn't just about voting. News shows encourage viewers to, comment by texting messages; game shows enable the audience to be part of the competition; music shows answer requests by taking text messages; and broadcasters set up on-screen chatrooms. TV audiences tend to sit on the sofa with their mobile phones right by their sides, and 'it's a supernatural way to interact,' says Adam Daum of Gartner.

C Mobile service providers charge appreciable rates for messages to certain numbers, which is why TV-texting can bring in a lot of cash. Take the latest British series of 'Big Brother' as an example. It brought about 5.4m text-message votes and £1.35m (\$2,1m) of profit. In Germany, MTV's



'Videoclash' encourages the audience to vote for one of two rival videos, and induces up to 40,000 texts per hour, and each one of those texts costs €0.30 (\$0.29), according to a consultancy based in Amsterdam. The Belgian quiz show '1 Against 100' had an eight-round texting match on the side, which brought in 110,000 participants in one month, and each of them paid €0.50 for each question. In Spain, a cryptic-crossword clue invites the audience to send their answers through text at the expense of €1, so that they can be enrolled in the poll to win a €300 prize. Normally, 6,000 viewers would participate within one day.

At the moment, TV-related text messaging takes up a considerable proportion of mobile service providers' data revenues. In July, Mm02 (a British operator) reported an unexpectedly satisfactory result, which could be attributed to the massive text waves created by 'Big Brother'. Providers usually own 40%-50% of the profits from each text, and the rest is divided among the broadcaster, the programme producer and the company which supplies the message-processing technology. So far, revenues generated from text messages have been an indispensable part of the business model for various shows. Obviously, there has been grumbling that the providers take too much of the share. Endemol, the Netherlands-based production firm that is responsible for many reality TV, shows including 'Big Brother', has begun constructing its own database for mobile-phone users. It plans to set up a direct billing system with the users and bypass the providers.

D How come the joining forces of television and text message turn out to be this successful? One crucial aspect is the emergence of one-of-a-kind four-, five- or six-digit numbers known as 'short codes'. Every provider has control over its own short codes, but not until recently have they come to realise that it would make much more sense to work together to offer short codes compatible with all networks. The emergence of this universal short codes was a game-changer, because short codes are much easier to remember on the screen, according to Lars Becker of Flytxt, a mobile-marketing company.

E Operators' co-operation on enlarging the market is by a larger trend, observes Katrina Bond of Analysys, a consultancy. When challenged by the dilemma between holding on tight to their margins and permitting the emergence of a new medium, no provider has ever chosen the latter. WAP, a technology for mobile-phone users to read cut-down web pages on their screens, failed because of service providers' reluctance towards revenue sharing with content providers. Now that they've learnt their lesson, they are altering the way of operating. Orange, a French operator, has come such a long way as to launch a rate card for sharing revenue of text messages, a new level of transparency that used to be unimaginable.



F At a recent conference, Han Weegink of CMG, a company that offers the television market text-message infrastructure, pointed out that the television industry is changing in a subtle yet fundamental way. Instead of the traditional one-way presentation, more and more TV shows are now getting viewers' reactions involved.

Certainly, engaging the audiences more has always been the promise of interactive TV. An interactive TV was originally designed to work with exquisite set-top devices, which could be directly plugged into the TV. However, as Mr Daum points out, that method was flawed in many ways. Developing and testing software for multiple and incompatible types of set-top box could be costly, not to mention that the 40% (or lower) market penetration is below that of mobile phones (around 85%). What's more, it's quicker to develop and set up apps for mobile phones. 'You can approach the market quicker, and you don't have to go through as many greedy middlemen,' Mr Daum says. Providers of set-top box technology are now adding texting function to the design of their products.

G The triumph of TV-related texting reminds everyone in the business of how easily a fancy technology can all of a sudden be replaced by a less complicated, lower-tech method. That being said, the old-fashioned approach to interactive TV is not necessarily over; at least it proves that strong demands for interactive services still exist. It appears that the viewers would sincerely like to do more than simply staring at the TV screen. After all, couch potatoes would love some thumb exercises.

Questions 28-32

Instructions to follow

- The Reading Passage 3 has six paragraphs **A-G**.
- Choose the correct heading for **B-E** and **G** from the list of headings below.
- Write the correct number, i-x, in boxes 28-32 on your answer sheet.

List of Headings

- i An application of short codes on the TV screen



- ii An overview of a fast-growing business
- iii The trend that profitable games are gaining more concerns
- iv Why Netherlands takes the leading role
- v A new perspective towards sharing the business opportunities
- vi Factors relevant to the rapid increase in interactive TV
- vii The revenue gains and bonus share
- viii The possibility of the complex technology replaced by the simpler ones
- ix The mind change of set-top box providers

Example Answer

Section A ii

28 Section B

29 Section C

30 Section D

31 Section E

Example Answer

Section F ix

32 Section G

Questions 33-35

Instructions to follow

- Write the appropriate letters A, B, C or D in boxes 33-35 on your answer sheet.

33 In Europe, a research hints that young audiences spend more money on

- A ☐ thumbing text messages.
- B ☐ writing e-mails.
- C ☐ watching TV programmes.
- D ☐



D talking through mobile phones.

34. What would happen when reality TV shows invite the audience to vote?

- A ☐ Viewers would get attractive bonus.
- B ☐ They would be part of the competition.
- C ☐ Their questions would be replied.
- D ☐ Their participation could change the result.

35. Interactive TV will change from concentrating on set-top devices to

- A ☐ increasing their share in the market.
- B ☐ setting up a modified set-top box.
- C ☐ building an embedded message platform.
- D ☐ marching into the European market.

Questions 36-40

Instructions to follow

- Look at the following descriptions (Questions **36-40**) and the list of companies below.
- Match each description with the correct company, **A-F**.
- Write the correct letter, **A-F**, in boxes **36-40** on your answer sheet.

List of Companies

- A Flytxt
- B Analysys
- C Endemol
- D CMG
- E Mm02



F Gartner

36 offered mobile phone message technology

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

37 earned considerable amount of money through a famous programme

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

38 expressed the view that short codes are convenient to remember when turning up

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

39 built their own mobile phone operating application

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

40 indicated that it is easy for people to send message in an interactive TV

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐



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 Innovation of Grocery Stores

A At the very beginning of the 20th century, the American grocery stores offered comprehensive services: the customers would ask help from the people behind the counters (called clerks) for the items they liked, and then the clerks would wrap the items up. For the purpose of saving time, customers had to ask delivery boys or go in person to send the lists of what they intended to buy to the stores in advance and then went to pay for the goods later. Generally speaking, these grocery stores sold only one brand for each item. Such early chain stores as A&P stores, although containing full services, were very time-consuming and inefficient for the purchase.

B Born in Virginia, Clarence Saunders left school at the age of 14 in 1895 to work first as a clerk in a grocery store. During his working in the store, he found that it was very inefficient for people to buy things there. Without the assistance of computers at that time, shopping was performed in a quite backward way. Having noticed that this inconvenient shopping mode could lead to tremendous consumption of time and money, Saunders, with great enthusiasm and innovation, proposed an unprecedented solution—let the consumers do self-service in the process of shopping—which might bring a thorough revolution to the whole industry.

C In 1902, Saunders moved to Memphis to put his perspective into practice, that is, to establish a grocery wholesale cooperative. In his newly designed grocery store, he divided the store into three



different areas: 'A front lobby' served as an entrance, an exit, as well as the checkouts at the front. 'A sales department' was deliberately designed to allow customers to wander around the aisle and select their needed groceries. In this way, the clerks would not do the unnecessary work but arrange more delicate aisle and shelves to display the goods and enable the customers to browse through all the items. In the gallery above the sales department, supervisors can monitor the customers without disturbing them. 'Stockroom', where large fridges were placed to maintain fresh products, is another section of his grocery store only for the staff to enter. Also, this new shopping design and layout could accommodate more customers to go shopping simultaneously and even lead to some unimaginable phenomena: impulse buying and later supermarket.

D On September 6, 1916, Saunders performed the self-service revolution in the USA by opening the first Piggly Wiggly featured by the turnstile at the entrance store at 79 Jefferson Street in Memphis, Tennessee. Quite distinct from those in other grocery stores, customers in Piggly Wiggly chose the goods on the shelves and paid the items all by themselves. Inside the Piggly Wiggly, shoppers were not at the mercy of staff. They were free to roam the store, check out the products and get what they needed by their own hands. There, the items were clearly priced, and no one forced customers to buy the things they did not need. As a matter of fact, the biggest benefit that the Piggly Wiggly brought to customers was the money-saving effect. Self-service was optimistic for the improvement. 'It is good for both the consumer and retailer because it cuts costs,' noted George T. Haley, a professor at the University of New Haven and director of the Centre for International Industry Competitiveness, 'if you look at the way in which grocery stores (previous to Piggly Wiggly and Alpha Beta) were operated, what you can find is that there are a great number of workers involved, and labour is a major expense.' Fortunately, the chain stores such as Piggly Wiggly cut the fat.

E Piggly Wiggly and this kind of self-service stores soared at that time. In the first year, Saunders opened nine branches in Memphis. Meanwhile, Saunders immediately applied a patent for the self-service concept and began franchising Piggly Wiggly stores. Thanks to the employment of self-service and franchising, the number of Piggly Wiggly had increased to nearly 1,300 by 1923. Piggly Wiggly sold \$100 million (worth \$1.3 billion today) in groceries, which made it the third-biggest grocery retailer in the nation. After that, this chain store experienced company listing on the New York Stock Exchange, with the stocks doubling from late 1922 to March 1923. Saunders contributed significantly to the perfect design and layout of grocery stores. In order to keep the flow rate smooth, Saunders even invented the turnstile to replace the common entrance mode.

F Clarence Saunders died in 1953, leaving abundant legacies mainly symbolised by Piggly Wiggly,



the pattern of which spread extensively and lasted permanently.

Questions 1-5

Instructions to follow

- Reading Passage 1 has seven paragraphs, A-G.
- Which paragraph contains the following information?
- Write the correct letter, A-G, in boxes 1-5 on your answer sheet.
- **NB** You may use any letter more than once.

1 layout of Clarence Saunders' store

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

2 a reference to a reduction by chain stores in labour costs

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

3 how Clarence Saunders' idea had been carried out

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

4 how people used to shop before Clarence Saunders' stores opened

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

5 a description of economic success brought by Clarence Saunders's stores

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

Questions 6-8

Instructions to follow



- Complete the sentences below.
- Choose NO MORE THAN TWO WORDS AND/OR A NUMBER from the passage for each answer.
- Write your answers in boxes 9-14 on your answer sheet

- 6 Clarence Saunders' first job was as in a grocery store.
- 7 In Clarence Saunders' store, people should pay for goods at a
- 8 Customers would be under surveillance at the
- 9 Another are in his store was called '.....', which was only accessible to the internal staff.
- 10 In Clarence Saunders' shopping design, much work was done by

Questions 11-13

Instructions to follow

- Choose the correct letter, A, B, C or D.
- Write the correct letter in boxes 11-13 on your answer sheet.

- 11 Why did Clarence Saunders want to propel the improvement of grocery stores at his age?
- A ☐ He wanted to transfer business to retailing.
- B ☐ He thought it was profitable.
- C ☐ He thought this could enable customers' life to be more convenient.
- D ☐ He wanted to create a new shop by himself.
- 12 The Piggly Wiggly store was
- A ☐ located in Memphis Tennessee.
- B ☐ mainly featured in self-service.



- C initially very unpopular with customers.
- D developed with a pessimistic future.
- 13 Today, the main thing associated with Clarence Saunders is that
- A ☐ a fully automatic store system opened soon near his first store.
- B ☐ his Piggly Wiggly store was very popular at that time.
- C ☐ his name was usually connected with Piggly Wiggly stores.
- D ☐ his name was printed together with that of his famous store.



Section 2

Instructions to follow

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

Bestcom – Considerate Computing

‘Your battery is now fully charged,’ announced the laptop to its owner Donald A. Norman in a synthetic voice, with great enthusiasm and maybe even a hint of pride. For the record, humans are not at all unfamiliar with distractions and multitasking. ‘We are used to a complex life that gets constantly interrupted by computer’s attention-seeking requests, as much as we are familiar with procreation,’ laughs Ted Selker of the Massachusetts Institute of Technology (MIT) Media Lab.

Humanity has been connected to approximately three billion networked telephones, computers, traffic lights and even fridges and picture frames since these things can facilitate our daily lives. That is why we do not typically turn off the phones, shut down the e-mail system, or close the office door even when we have a meeting coming or a stretch of concentrated work. We merely endure the consequences.

Countless research reports have confirmed that if people are unexpectedly interrupted, they may suffer a drop in work efficiency, and they are more likely to make mistakes. According to Robert G. Picard from the University of Missouri, it appears to build up the feeling of frustration cumulatively, and that stress response makes it difficult to focus again. It is not solely about productivity and the pace of life. For some professionals like pilots, drivers, soldiers and doctors, loss of focus can be



downright disastrous. 'If we could find a way to make our computers and phones realise the limits of human attention and memory, they may come off as more thoughtful and courteous,' says Eric Horvitz of Microsoft Research. Horvitz, Selker and Picard are just a few of a small but prospering group of researchers who are attempting to make computers, phones, cars and other devices to function more like considerate colleagues instead of egocentric oafs.

To do this, the machines need new skills of three kinds: sensing, reasoning and communicating. First, a system must: sense or infer where its owner is and what he or she is doing. Next, it must weigh the value of the messages it wants to convey against the cost of the disruption. Then it has to choose the best mode and time to interject: Each of these pushes the limits of computer science and raises issues of privacy, complexity or reliability. Nevertheless, 'Attentive' Computing Systems, have started to make an appearance in the latest Volvos, and IBM has designed and developed a communications software called WebSphere that comes with an underlying sense of busyness. Microsoft has been conducting extensive in-house tests of a way more sophisticated system since 2003. In a couple of years, companies might manage to provide each office employee with a software version of the personal receptionist which is only available to corner-suite executives today.

However, the truth is that most people are not as busy as they claim to be, which explains why we can often stand interruptions from our inconsiderate electronic paraphernalia. To find out the extent to which such disruption may claim people's daily time, an IBM Research team led by Jennifer Lai from Carnegie Mellon University studied ten managers, researchers and interns at the workplace. They had the subjects on videotape, and within every period of a specific time, they asked the subjects to evaluate their 'interruptibility'. The time a worker spent in leave-me-alone state varied from individual to individual and day to day, and the percentage ranged from 10 to 51. Generally, the employees wished to work without interruption for roughly 1/3 of the time. Similarly, by studying Microsoft workers, Horvitz also came to the discovery that they ordinarily spend over 65 per cent of their day in a low-attention mode.

Obviously, today's phones and computers are probably correct about two-thirds of time by assuming that their users are always available to answer a call, check an email, or click the 'OK' button on an alert box. But for the considerate systems to be functional and useful, their accuracy has to be above 65 in sending when their users are about to reach their cognitive limit.

Inspired by Horvitz's work, Microsoft prototype Bestcom-Enhanced Telephony (Bestcom-ET) digs a bit deeper into every user's computer to find out clues about what they are dealing with. As I said



earlier, Microsoft launched an internal beta test of the system in mid-2003. Horvitz points out that by the end of last October, nearly 3,800 people had been relying on the system to field their incoming calls.

Horvitz is, in fact, a tester himself, and as we have our conversation in his office, Bestcom silently takes care of all the calls. Firstly, it checks if the caller is in his address book, the company directory, or the 'recent call' list. After triangulating all these resources at the same time, it attempts to figure out what their relationship is. The calls that get through are from family, supervisors and people he called earlier that day. Other callers will get a message on their screens that say he cannot answer now because he is in a meeting, and will not be available until 3pm. The system will scan both Horvitz's and the caller's calendar to check if it can reschedule a callback at a time which works for both of them. Some callers will take that option, while others simply leave a voicemail. The same happens with e-mails. When Horvitz is not in his office, Bestcom automatically offers to transfer selected callers to his cellphone, unless his calendar implies that he is in a meeting.

Questions 14-19

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 2?
In boxes 14-19 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

- 14 According to Ted Selker, human reproduction has been disturbed throughout history.
- 15 If people are interrupted by calls or e-mails, they usually put up with it.
- 16 Microsoft is now investigating a software which is compatible with ordinary offices.
- 17 People usually have a misperception about whether they are busy or not.
- 18 Experts in Carnegie Mellon University conducted a research observing all occupations of IBM.
- 19 Current phone and computer systems have shortcut keys for people receiving information immediately.

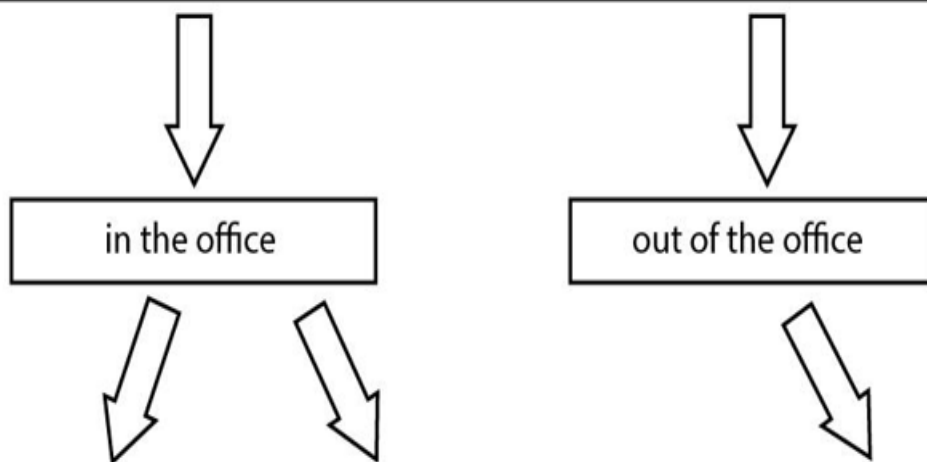


Questions 20-26

Instructions to follow

- Complete the flow-chart below.
- Choose only ONE WORD FROM the passage for each answer
- Write your answers in boxes 20-26 on your answer sheet.

Bestcom system makes further efforts in order to find **20** about what users are doing.





Check the 21..... between the caller and the user, whether the caller has contact information of the user, such as their family, friends or colleagues

If callers are not in directory, a(n) 22..... will show up on their screen, saying the user is not available at moment. The system will 23..... a suitable time for both, or callers can choose to leave a(n) 24..... to users.

Bestcom will provide a solution by transferring your call to the user's 25..... if there is no 26..... in his or her schedule.

Section 3

Instructions to follow

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

The Olympic Torch

Since 776 B.C., when the Greek people held their first-ever Olympic Games, the Games were hosted every four years at the Olympia city. Back then, a long journey for the Olympic torch was made before the opening ceremony of each Olympic Games. The Greek people would light a cauldron of flames on the altar, a ritual devoted to Hera, the Greek Goddess of birth and marriage.

The reintroduction of flame to the Olympics occurred at the Amsterdam 1928 Games, for which a cauldron was lit yet without a torch relay. The 1936 Berlin Summer Games held the first Olympic torch relay, which was not resumed in the Winter Olympics until in 1952. However, in that year the torch was lit not in Olympia, Greece, but in Norway, which was considered as the birthplace of



skiing. Until the Innsbruck 1964 Winter Olympics in Austria, the Olympic flame was reignited at Olympia.

The torch is originally an abstract concept of a designer or groups of designers. A couple of design groups hand in their drafts to the Olympic Committee in the hope that they would get the chance to create the torch. The group that wins the competition will come up with a design for a torch that has both aesthetic and practical value. After the torch is completed, it has to succeed in going through all sorts of severe weather conditions. The appearance of the modern Olympic torch is attributed to a Disney artist John Hench, who designed the torch for the 1960 Winter Olympics in Squaw Valley, California. His design laid a solid foundation for all the torches in the future.

The long trip to the Olympic area is not completed by one single torch, but by thousands of them, so the torch has to be replicated many times. Approximately 10,000 to 15,000 torches are built to fit thousands of runners who take the torches through every section of the Olympic relay. Every single runner can choose to buy his or her torch as a treasurable souvenir when he or she finishes his or her part of the relay.

The first torch in the modern Olympics (the 1936 Berlin Games) was made from a slender steel rod with a circular platform at the top and a circular hole in the middle to jet flames.

The name of the runner was also inscribed on the platform as a token of thanks. In the earlier days, torches used everything from gunpowder to olive oil as fuels. Some torches adopted a combination of hexamine and naphthalene with a flammable fluid. However, these materials weren't exactly the ideal fuel sources, and they could be quite hazardous sometimes. In the 1956 Olympics, the torch in the final relay was ignited by magnesium and aluminium, but some flaming pieces fell off and seared the runner's arms.

To promote the security rate, liquid fuels made its first appearance at the 1972 Munich Games. Since then, torches have been using fuels which are pressurised into the form of a liquid. When the fuels are burnt, they turn into gas to produce a flame. Liquid fuel becomes safer for the runner and can be stored in a light container. The torch at the 1996 Atlanta Summer Olympics is equipped with an aluminium base that accommodates a tiny fuel tank. As the fuel ascends through the modified handle, it is squeezed through a brass valve that has thousands of little openings. As the fuel passes through the tiny openings, it accumulates pressure. Once it makes its way through the openings, the pressure decreases and the liquid becomes gas so it can burn up.

The torch in 1996 was fuelled by propylene, a type of substance that could give out a bright flame.



However, since propylene was loaded with carbon, it would produce plenty of smoke which was detrimental to the environment. In 2000, the designers of the Sydney Olympic torch proposed a lighter and cheaper design, which was harmless to the environment. For the fuel, they decided to go with a combination of 35 per cent propane (a gas that is used for cooking and heating) and 65 per cent butane (a gas that is obtained from petroleum), thus creating a powerful flame without generating much smoke.

Both the 1996 and 2000 torches adopted a double flame burning system, enabling the flames to stay lit even in severe weather conditions. The exterior flame burns at a slower rate and at a lower temperature. It can be perceived easily with its big orange flame, but it is unstable. On the other hand, the interior flame burns faster and hotter, generating a small blue flame with great stability, due to the internal site offering protection of it from the wind. Accordingly, the interior flame would serve as a pilot light, which could relight the external flame if it should go out.

As for the torch of 2002 Olympics in Salt Lake City, the top section was made of glass in which the flame burned, for the purpose of echoing the theme of 'Light the Fire Within' of that Olympics. This torch was of great significance for the following designs of the torches.

Questions 27-29

Instructions to follow

- Complete the sentences below.
- Choose NO MORE THAN THREE WORDS from the passage for each answer.
- Write your answers in boxes 9-14 on your answer sheet.

The Olympic torch, as requested by the Olympic Committee, will be carefully designed so that it is capable of withstanding all kinds of ²⁷ Generally, the design of the modern Olympic torch ²⁸ value. The torch must be copied, and thousands of torches are constructed to accommodate thousands of runners who will carry them through each leg of the Olympic relay. Each runner has an opportunity to purchase ²⁹ the torch as a(n) ²⁹ at the end of his or her leg of the relay.

Questions 30-35



Instructions to follow

- Look at the following statements (Questions 30-35) and the list of Olympic Torches below.
- Make each statement with the correct Olympic torch, A-H.
- Write the correct letter, A-H in boxes 30-35 on your answer sheet.

List of Olympic Torches

- A ancient Greek Olympic flames
- B Berlin Games torch (1936)
- C 1952 Winter Games flame
- D 1956 Games torch
- E Munich Games torch (1972)
- F 1996 torch (Atlanta)
- G 2000 torch (Sydney)
- H 2002 torch (Salt Lake City)

30 first liquid fuel

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

31 not environmentally friendly

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

32 beginning to record the runners' name

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

33



33 potentially risky as it burnt the runner's arms

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

34 special for a theme of 'Light'

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

35 not lit in Greek

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

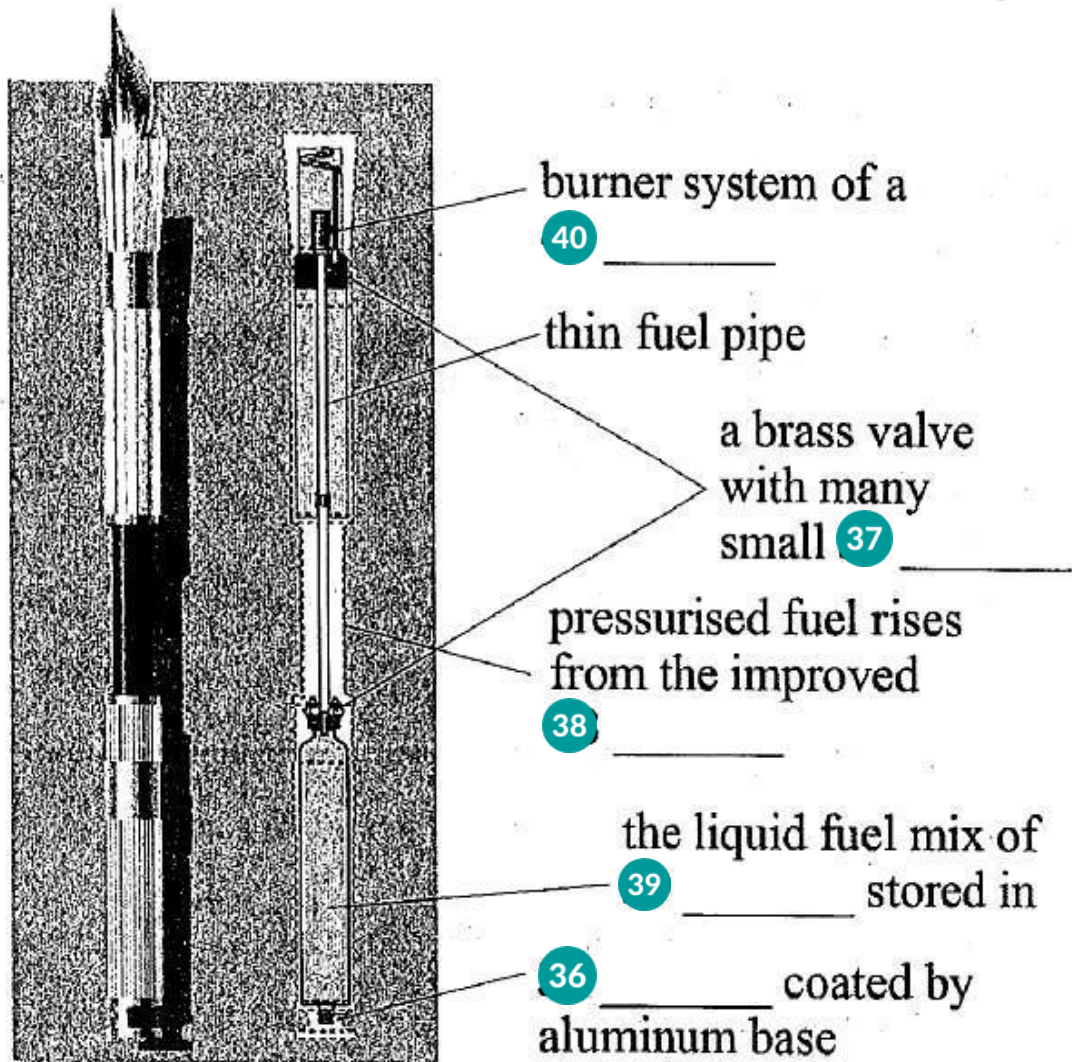
Questions 36-40

Instructions to follow

- Label the diagram below.
- Choose **NO MORE THAN WORDS** from the correct ending, A-D below.
- Write your answers in boxes 36-40 on your answer sheet.



The structure of the 1996 and 2000 Olympic torches



IELTS Reading Test 3

Section 1

Instructions to follow



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

History of Refrigeration

Refrigeration is a process of removing heat, which means cooling an area or a substance below the environmental temperature. Mechanical refrigeration makes use of (the evaporation of a liquid refrigerant, which goes through a cycle so that it can be reused. The main cycles include vapour-compression, absorption steam-jet or steam-ejector, and airing. The term 'refrigerator' was first introduced by a Maryland farmer Thomas Moore in 1803, but it is in the 20th century that the appliance we know today first appeared.

People used to find various ways to preserve their food before the advent of mechanical refrigeration systems. Some preferred using cooling systems of ice or snow, which meant that diets would have consisted of very little fresh food or fruits and vegetables, but mostly of bread, cheese and salted meals. For milk and cheeses, it was very difficult to keep them fresh, so such foods were usually stored in a cellar or window box. In spite of those measures, they could not survive rapid spoilage. Later on, people discovered that adding such chemical as sodium nitrate or potassium nitrate to water could lead to a lower temperature. In 1550 when this technique was first recorded, people used it to cool wine, as was the term 'to refrigerate'. Cooling drinks grew very popular in Europe by 1600, particularly in Spain, France, and Italy. Instead of cooling water at night, people used a new technique: rotating long-necked bottles of water which held dissolved saltpeter. The solution was intended to create very low temperatures and even to make ice. By the end of the 17th century, iced drink including frozen juices and liquors had become extremely fashionable in France.

People's demand for ice soon became strong. Consumers' soaring requirement for fresh food, especially for green vegetables, resulted in reform in people's dieting habits between 1830 and the American Civil War, accelerated by a drastic expansion of the urban areas and the rapid amelioration in an economy of the populace. With the growth of the cities and towns, the distance between the consumer and the source of food was enlarged. In 1799 as a commercial product, ice was first transported out of Canal Street in New York City to Charleston, South Carolina.

Unfortunately, this transportation was not successful because when the ship reached the destination, little ice left. Frederick Tudor and Nathaniel Wyeth, two New England' businessmen,



grasped the great potential opportunities for ice business and managed to improve the storage method of ice in the process of shipment. The acknowledged 'Ice King' in that time, Tudor concentrated his efforts on bringing the ice to the tropical areas. In order to achieve his goal and guarantee the ice to arrive at the destination safely he tried many insulating materials in an experiment and successfully constructed the ice containers, which reduce the ice loss from 66 per cent to less than 8 per cent drastically. Wyeth invented an economical and speedy method to cut the ice into uniform blocks, which had a tremendous positive influence on the ice industry. Also, he improved the processing techniques for storing, transporting and distributing ice with less waste.

When people realised that the ice transported from the distance was not as clean as previously thought and gradually caused many health problems, it was more demanding to seek the clean natural sources of ice. To make it worse, by the 1890s water pollution and sewage dumping made clean ice even more unavailable. The adverse effect first appeared in the brewing industry, and then seriously spread to such sectors as meat packing and dairy industries. As a result, the clean, mechanical refrigeration was considerably in need.

Many inventors with creative ideas took part in the process of inventing refrigeration, and each version was built on the previous discoveries. Dr William Cullen initiated to study the evaporation of liquid under the vacuum conditions in 1720. He soon invented the first man-made refrigerator at the University of Glasgow in 1748 with the employment of ethyl ether boiling into a partial vacuum. American inventor Oliver Evans designed the refrigerator firstly using vapour rather than liquid in 1805. Although his conception was not put into practice in the end the mechanism was adopted by an American physician John Gorrie, who made one cooling machine similar to Evans' in 1842 with the purpose of reducing the temperature of the patient with yellow fever in a Florida hospital. Until 1851, Evans obtained the first patent for mechanical refrigeration in the USA. In 1820, Michael Faraday, a Londoner, first liquefied ammonia to cause cooling. In 1859, Ferdinand Carre from France invented the first version of the ammonia water cooling machine. In 1873, Carl von Linde designed the first practical and portable compressor refrigerator in Munich, and in 1876 he abandoned the methyl ether system and began using ammonia cycle. Linde later created a new method ('Linde technique') for liquefying large amounts of air in 1894. Nearly a decade later, this mechanical refrigerating method was adopted subsequently by the meat packing industry in Chicago.

Since 1840, cars with the refrigerating system had been utilised to deliver and distribute milk and butter. Until 1860, most seafood and dairy products were transported with cold-chain logistics. In 1867, refrigerated, railroad cars are patented to J.B. Sutherland from Detroit, Michigan, who invented insulated cars by installing the ice bunkers at the end of the cars: air came in from the top,



passed through the bunkers, circulated through the cars by gravity and controlled by different quantities of hanging flaps which caused different air temperatures. Depending on the cargo (such as meat, fruits etc.) transported by the cars, different car designs came into existence. In 1867, the first refrigerated car to carry fresh fruit was manufactured by Parker Earle of Illinois, who shipped strawberries on the Illinois Central Railroad. Each chest was freighted with 100 pounds of ice and 200 quarts of strawberries. Until 1949, the trucking industry began to be equipped with the refrigeration system with a roof-mounted cooling device, invented by Fred Jones.

From the late 1800s to 1929, the refrigerators employed toxic gases – methyl chloride, ammonia, and sulfur dioxide – as refrigerants. But in the 1920s, a great number of lethal accidents took place due to the leakage of methyl chloride out of refrigerators. Therefore, some American companies started to seek some secure methods of refrigeration. Frigidaire detected a new class of synthetic, refrigerants called halocarbons or CFCs (chlorofluorocarbons) in 1928. This research led to the discovery of chlorofluorocarbons (Freon), which quickly became the prevailing material in compressor refrigerators. Freon was safer for the people in the vicinity, but in 1973 it was discovered to have detrimental effects on the ozone layer. After that, new improvements were made, and Hydrofluorocarbons, with no known harmful effects, was used in the cooling system. Simultaneously, nowadays, Chlorofluorocarbons (CFCs) are no longer used; they are announced illegal in several places, making the refrigeration far safer than before.

Questions 1-5

Instructions to follow

- Look at the following events (Questions 1-5) and the list of dates below.
- Match each event with correct date, A-F.
- Write the correct letter, A-F, in boxes 1-5 on your answer sheet.

List of Dates

- A 1550
- B 1799
- C 1803



- D 1840
- E 1949
- F 1973

1 Vehicles with refrigerator were used to transport on the road.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

2 Ice was sold around the United States for the first time.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

3 Some kind of chemical refrigerant was found harmful to the atmosphere.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

4 The term 'refrigerator' was firstly introduced.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

5 Some chemicals were added to refrigerate wine.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

Questions 6-10

Instructions to follow

- Look at the following opinions or deeds (Questions 6-10) and the list of people below.
- Match each statement or description with the correct person or people A, B, C or D.
- Write the correct letter, A-G, in boxes 6-10 on your answer sheet.



List of People

- A Thomas Moore
- B Frederick Tudor
- C Carl Von Linde
- D Nathaniel Wyeth
- E J.B. Sutherland
- F Fred Jones
- G Parker Earle

6 patented the idea that refrigerating system can be installed on tramcars

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

7 invented an ice-cutting technical method that could save money and time

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

8 enabled the cold storage technology to be applied in fruit

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

9 invented a cooling device applied into the trucking industry

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

10 created a new technique to liquefy the air

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

Questions 11-14

**Instructions to follow**

- Complete each sentence with the correct ending, A-E, below.
- Write the correct letter, A-E, in boxes 11-14 on your answer sheet.

- A new developments, such as the application of Hydrofluorocarbons.
- B consumers' demand for fresh food, especially for vegetables.
- C the discovery of chlorofluorocarbons (Freon).
- D regional transportation system for refrigeration for a long distance.
- E extensive spread of the refrigeration method.

11 A healthy dietary change between 1830 and the American Civil War was greatly associated with

- A ☐ B ☐ C ☐ D ☐

12 The development of urbanisation was likely to cause

- A ☐ B ☐ C ☐ D ☐

13 Problems due to water treatment contributed to

- A ☐ B ☐ C ☐ D ☐

14 The risk of the environmental devastation from the refrigeration led to

- A ☐ B ☐ C ☐ D ☐

Section 2

**Instructions to follow**

- You should spend 20 minutes on Questions 15-27 which are based on Reading Passage 2.

The Evolutionary Mystery: Crocodile Survives

A Even though crocodiles have existed for 200 million years, they're anything but primitive. As crocodiles' ancestors, crocodilia came to adapt to an aquatic lifestyle. When most of the other contemporary reptiles went extinct, crocodiles were able to make it because their bodies changed and they adapted better to the climate. They witnessed the rise and fall of the dinosaurs, which once ruled the planet, and even the 65 million years of alleged mammalian dominance didn't wipe them off. Nowadays, the crocodiles and alligators are not that different from their prehistoric ancestors, which proves that they were (and still are) incredibly adaptive.

B The first crocodile-like ancestors came into existence approximately 230 million years ago, and they had many of the features which make crocodiles natural and perfect stealth hunters: streamlined body, long tail, protective armour and long jaws. They are born with four short, webbed legs, but this does not mean that their capacity to move on the ground shall ever be underestimated. When they move, they are so fast that you won't even have any chance to try making the same mistake again by getting too close, especially when they're hunting.

C Like other reptiles, crocodiles are poikilothermal animals (commonly known as coldblooded, whose body temperature changes with that of the surroundings) and consequently, require exposure to sunlight regularly to raise body temperature. When it is too hot, they would rather stay in water or shade. Compared with mammals and birds, crocodiles have a slower metabolism, which makes them less vulnerable to food shortage. In the most extreme case, a crocodile can slow its metabolism down even further, to the point that it would survive without food for a whole year, enabling them to outlive mammals in relatively volatile environments.

D Crocodiles have a highly efficient way of catching prey. The prey rarely realises there might be a crocodile under the water because the crocodile makes a move without any noise or great vibration when spotting its prey. It only keeps its eyes above the water level. As soon as it feels close enough to the victim, it jerks out of the water with its wide open jaws. Crocodiles are successful because



they are capable of switching feeding methods. It chases after fish and snatches birds at the water surface, hides in the waterside bushes in anticipation of a gazelle, and when the chance to ambush presents itself, the crocodile dashes forward, knocks the animal out with its powerful tail and then drags the prey into the water to drown.

E In many crocodilian habitats, the hot season brings drought that dries up their hunting grounds, leaving it harder for them to regulate body temperatures. This actually allowed reptiles to rule. For instance, many crocodiles can protect themselves by digging holes and covering themselves in mud, waiting for months without consuming any food or water until the rains finally return. They transform into a quiescent state called aestivation.

F The majority of crocodilians are considered to go into aestivation during the dry season. In a six-year study by Kennett and Christian, the King Crocodiles, a species of Australian freshwater crocodiles, spent nearly four months a year underground without access to water resources. Doubly labelled water was applied to detect field metabolic rates and water flux, and during some years, plasma fluid samples were taken once a month to keep track of the effects of aestivation regarding the accumulation of nitrogenous wastes and electrolyte concentrations.

G The study discovered that the crocodiles' metabolic engines function slowly, creating waste and exhausting water and fat reserves. Waste is stored in the urine, becoming more and more concentrated. Nevertheless, the concentration of waste products in blood doesn't fluctuate much, allowing the crocodiles to carry on their normal functions. Besides, even though the crocodiles lost water reserves and body weight when underground, the losses were proportional; upon emerging, the aestivating animals had no dehydration and displayed no other harmful effects such as a slowed-down growth rate. The two researchers reckon that this capacity of crocodiles to get themselves through the harsh times and the long starvation periods is sure to be the answer to the crocodilian line's survival throughout history.

Questions 15-21

Instructions to follow

- Reading Passage 2 has seven paragraphs, A-G.
- Which paragraph contains the following information?
- Choose the correct heading for each paragraph from the list of headings below.
- Write the correct number, i-xi, in boxes 15-21 on your answer sheet.



List of Headings

- i The favourable feature in the impact of a drought
- ii A unique finding that was recently achieved
- iii Slow metabolism which makes crocodile a unique reptile
- iv The perfectly designed body for a great land roamer
- v Shifting eating habits and food intake
- vi A project on a special mechanism
- vii Regulating body temperature by the surrounding environment
- viii Underwater aid in body structure offered to a successful predator
- ix A historical story for the supreme survivors
- x What makes the crocodile the fastest running animal on land
- xi The competition between the crocodiles and other animals

15 Paragraph A

16 Paragraph B

17 Paragraph C

18 Paragraph D

19 Paragraph E

20 Paragraph F

21 Paragraph G

Questions 22-27

Instructions to follow

- Complete the summary below.
- Choose no more than two words from the passage for each answer.



- Write answers in the box 22-27 on your answer sheet.

Aestivation

In many places inhabited by crocodilians, most types of crocodiles have evolved a successful scheme to survive in the drought brought by a **22** According to Kennett and Christian's six-year study of Australian freshwater crocodiles' aestivation, they found estivating crocodiles spent around **23** of the year and had **24** The amount of water in the **25** declined proportionately with **25** **26**; thus there is no sign of **26** and other health-damaging impact on the crocodiles even after an aestivation period. This super capacity helps croco**27**s endure the tough drought without slowing their speed of **27**.....

Section 3

**Instructions to follow**

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

Elephant Communication

O' Connell-Rodwell, a postdoctoral fellow at Stanford University, has travelled to Namibia's first-ever wildlife reserve to explore the mystical and complicated realm of elephant communication. She, along with her colleagues, is part of a scientific revolution that started almost 20 years ago. This revolution has made a stunning revelation: elephants are capable of communicating with each other over long distances with low-frequency sounds, also known as infrasounds, which are too deep for humans to hear.

As might be expected, African elephants able to detect seismic sound may have something to do with their ears. The hammer bone in an elephant's inner ear is proportionally huge for a mammal, but it is rather normal for animals that use vibrational signals. Thus, it may be a sign that suggests elephants can use seismic sounds to communicate.

Other aspects of elephant anatomy also support that ability. First, their massive bodies, which enable them to give out low-frequency sounds almost as powerful as the sound a jet makes during takeoff, serve as ideal frames for receiving ground vibrations and transmitting them to the inner ear. Second, the elephant's toe bones are set on a fatty pad, which might be of help when focusing vibrations from the ground into the bone. Finally, the elephant has an enormous brain that sits in the cranial cavity behind the eyes in line with the auditory canal. The front of the skull is riddled with sinus cavities, which might function as resonating chambers for ground vibrations.

It remains unclear how the elephants detect such vibrations, but O' Connell-Rodwell raises a point that the pachyderms are 'listening' with their trunks and feet instead of their ears. The elephant trunk may just be the most versatile appendage in nature. Its utilization encompasses drinking, bathing, smelling, feeding and scratching. Both trunk and feet contain two types of nerve endings that are sensitive to pressure – one detects infrasonic vibration, and another responds to vibrations higher in frequencies. As O' Connell-Rodwell sees, this research has a boundless and unpredictable future. 'Our work is really interfaced of geophysics, neurophysiology and ecology,' she says. 'We're



raising questions that have never even been considered before.'

It has been well-known to scientists that seismic communication is widely observed among small animals, such as spiders, scorpions, insects and quite a lot of vertebrate species like white-lipped frogs, blind mole rats, kangaroo rats and golden moles. Nevertheless, O'Connell-Rodwell first argued that a giant land animal is also sending and receiving seismic signals. 'I used to lay a male planthopper on a stem and replay the calling sound of a female, and then the male one would exhibit the same kind of behaviour that happens in elephants—he would freeze, then press down on his legs, move forward a little, then stay still again. I find it so fascinating, and it got me thinking that perhaps auditory communication is not the only thing that is going on.'

Scientists have confirmed that an elephant's capacity to communicate over long distance is essential for survival, especially in places like Etosha, where more than 2,400 savanna elephants range over a land bigger than New Jersey. It is already difficult for an elephant to find a mate in such a vast wild land, and the elephant reproductive biology only complicates it. Breeding herds also adopt low-frequency sounds to send alerts regarding predators. Even though grown-up elephants have no enemies else than human beings, baby elephants are vulnerable and are susceptible to lions and hyenas attack. At the sight of a predator, older ones in the herd will clump together to form protection before running away.

We now know that elephants can respond to warning calls in the air, but can they detect signals transmitted solely through the ground? To look into that matter, the research team designed an experiment in 2002, which used electronic devices that enabled them to give out signals through the ground at Mushara. 'The outcomes of our 2002 study revealed that elephants could indeed sense warning signals through the ground,' O'Connell-Rodwell observes.

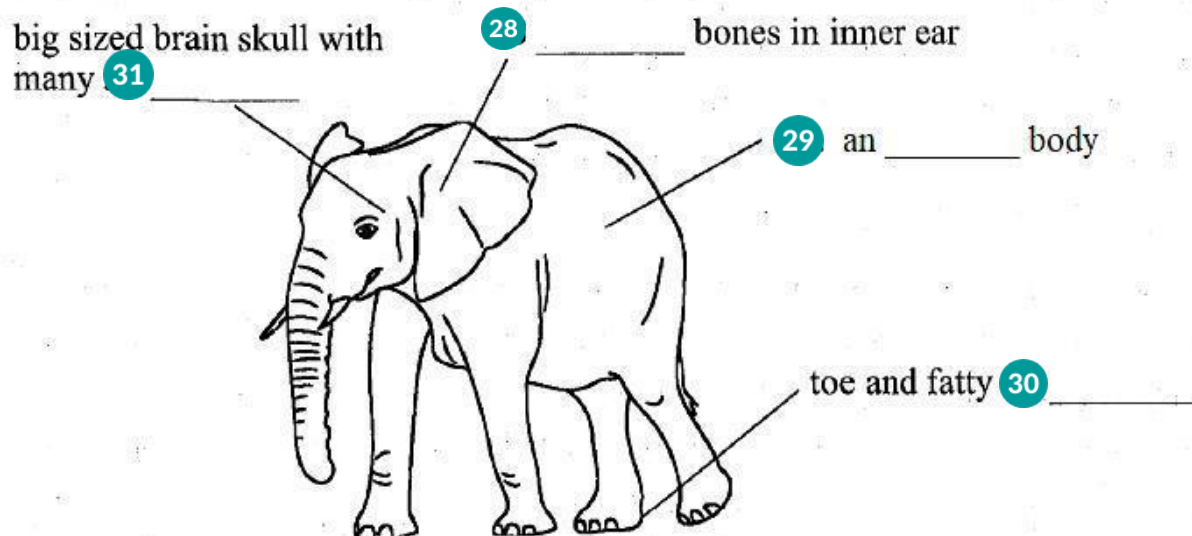
Last year, an experiment was set up in the hope of solving that problem. It used three different recordings—the 1994 warning call from Mushara, an anti-predator call recorded by scientist Joyce Poole in Kenya and a made-up warble tone. 'The data I've observed to this point implies that the elephants were responding the way I always expected. However, the fascinating finding is that the anti-predator call from Kenya, which is unfamiliar to them, caused them to gather around, tense up and rumble aggressively as well—but they didn't always flee. I didn't expect the results to be that clear-cut.'

Questions 28-31



Instructions to follow

- Label the diagram below.
- Choose NO MORE THAN TWO WORDS from the passage for each answer.
- Write your answers in boxes 28-31 on your answer sheet.



Questions 32-38

Instructions to follow

- Complete the summary below.
- Choose NO MORE THAN THREE WORDS from the passage for each answer.
- Write your answers in boxes 32-38 on your answer sheet.

How the elephants sense these sound vibrations is still unknown, but O'Connell-Rodwell, a



postdoctoral researcher at Stanford University, proposes that elephants are 'listening' with their
 32..... by two kinds of nerve endings that respond to vibrations with both
 33..... frequency and slightly higher frequencies. O'Connell-Rodwell's work is at
 the combination of geophysics, neurophysiology and 34..... It was known that
 seismic communication existed extensively within small animals, but O'Connell-Rodwell was the
 first person to indicate that a large land animal would send and receive 35.....
 too. Also, he noticed the freezing behaviour by putting a male planthopper on a stem and play back
 a female call, which might prove the existence of other communicative approaches besides
 36..... Scientists have determined that an elephant's ability to communicate over
 long distances is essential, especially, when elephant herds are finding a
 37....., or are warning of predators. Finally, the results of our 2002 study
 showed us that elephants could detect warning calls through the 38.....

Questions 39-40

Instructions to follow

- Choose the correct letter, A, B, C, or D
- Write the correct letter in boxes 39-40 on your answer sheet.

39 According to the passage, it is determined that an elephant needs to communicate over long distances for its survival

- A ☐ when a threatening predator appears.
- B ☐ when young elephants meet humans.
- C ☐ when older members of the herd want to flee from the group.
- D ☐ when a male elephant is in estrus.

40 What is the author's attitude toward the experiment by using three different recordings in the last paragraph?

- A ☐
- B ☐
- C ☐
- D ☐



- A The outcome is definitely out of the original expectation.
- B The data cannot be very clearly obtained.
- C The result can be somewhat undecided or inaccurate.
- D The result can be unfamiliar to the public.



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.

The Pearl

A The pearl has always had a special status in the rich and powerful all through history. For instance, women from ancient Rome went to bed with pearls on them, so that they could remind themselves how wealthy they were after waking up. Pearls used to have more commercial value than diamonds until jewellers learnt to cut gems. In the eastern countries like Persia, ground pearl powders could be used as a medicine to cure anything including heart diseases and epilepsy.

B Pearls can generally be divided into three categories: natural, cultured and imitation. When an irritant (such as a grain of sand) gets inside a certain type of oyster, mussel, or clam, the mollusc will secrete a fluid as a means of defence to coat the irritant. Gradually, layers are accumulated around the irritant until a lustrous natural pearl is formed.

C A cultured pearl undergoes the same process. There is only one difference between cultured pearls and natural ones: in cultured pearls, the irritant is a head called 'mother of pearl' and is placed in the oyster through surgical implantation. This results in much larger cores in cultivated pearls than those in natural pearls. As long as there are enough layers of nacre (the secreted fluid covering the irritant) to create a gorgeous, gem-quality pearl; the size of the nucleus wouldn't make a difference to beauty or durability.

D Pearls can come from both salt and freshwater sources. Typically, pearls from salt water usually have high quality, although several freshwater pearls are considered high in quality, too. In addition, freshwater pearls often have irregular shapes, with a puffed rice appearance. Nevertheless, it is the individual merits that determine the pearl's value more than the sources of pearls. Saltwater pearl



oysters are usually cultivated in protected lagoons or volcanic atolls, while most freshwater cultured pearls sold today come from China. There are a number of options for producing cultured pearls: use fresh water or sea water shells, transplant the graft into the mantle or into the gonad, add a spherical bead or do it non-beaded.

E No matter which method is used to get pearls, the process usually takes several years. Mussels must reach a mature age, which may take up to almost three years, and then be transplanted as an irritant. When the irritant is put in place, it takes approximately another three years for a pearl to reach its full size. Sometimes, the irritant may be rejected. As a result, the pearl may be seriously deformed, or the oyster may directly die from such numerous complications as diseases. At the end of a 5- to 10-year cycle, only half of the oysters may have made it through. Among the pearls that are actually produced in the end, only about 5% of them will be high-quality enough for the jewellery makers.

F Imitation pearls are of another different story. The Island of Mallorca in Spain is renowned for its imitation pearl industry. In most cases, a bead is dipped into a solution made from fish scales. But this coating is quite thin and often wears off. One way to distinguish the imitation pearls is to have a bite on it. Fake pearls glide through your teeth, while the layers of nacre on the real pearls feel gritty.

G Several factors are taken into account to evaluate a pearl: size, shape, Colour, the quality of surface and luster. Generally, the three types of pearls come in such order (with the value decreasing): natural pearls, cultured pearls and imitation pearls (which basically are worthless). For jewellers, one way to tell whether a pearl is natural or cultured is to send it to a gem lab and perform an X-ray on it. High-quality natural pearls are extremely rare. Japan's Akoya pearls are one of the glossiest pearls out there, while the south sea water of Australia is a cradle to bigger pearls.

H Historically, the pearls with the highest quality around the globe are found in the Persian Gulf, particularly around Bahrain. These pearls have to be hand-harvested by divers with no advanced



equipment. Unfortunately, when the large reserve of oil was discovered in the early 1930s, Persian Gulf's natural pearl industry came to a sudden end because the contaminated water destroyed the once pristine pearls. In the present days, India probably has the largest stock of natural pearls. However, it is quite an irony that a large part of India's stock of natural pearls are originally from Bahrain.

Questions 1-4

Instructions to follow

- Reading Passage 1 has seven paragraphs, A-H.
- Which paragraph contains the following information?
- Write the correct letter, A-H, in boxes 1-4 on your answer sheet.

1 ancient stories around pearls and its customers

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

2 difficulties in cultivating process

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

3 factors which decide the value of natural pearls

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

4 a growth mechanism that distinguishes cultured pearls from natural ones

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

Questions 5-13

Questions 5-10

Instructions to follow



- Complete the summary below.
- Choose NO MORE THAN TWO WORDS from the passage for each answer.
- Write your answers in boxes 5-10 on your answer sheet.

In history, pearls have had great importance within the men of wealth and power, which were treated as gems for women in **5** Also, pearls were even used as a medicine for people **6** There are essentially three types of pearls: natural, cultured and imitation. Most freshwater cultured pearls sold today come from China while **7** Island is famous for its imitation pearl industry. Good-quality natural pearls are exceedingly **8** unusual. **8** often manufactures some of the glittering **9** pearls while **9** produces larger size ones due to the favourable environment **10** along the coastline. In the past, **10** in Persian Gulf produced the world's best pearls. Nowadays, the major remaining suppliers of natural pearls belong to India.

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** Generally speaking, the centre of cultured pearl is significantly larger than that of a natural pearl.
- 12** Sometimes, fake pearls can be more expensive.
- 13** The size of the pearls produced in Japan is usually smaller than those in Australia.



Section 2

**Instructions to follow**

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

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 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 resources, 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 utilized 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 1 has seven 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 11-13

**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 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 below.

Can Hurricanes be Moderated or Diverted?

A Each year, massive swirling storms bringing along winds greater than 74 miles per hour wipe across tropical oceans and land on shorelines—usually devastating vast swaths of territory. When these roiling tempests strike densely inhabited territories, they have the power to kill thousands and cause property damage worth of billions of dollars. Besides, absolutely nothing stands in their way. But can we ever find a way to control these formidable forces of nature?

B To see why hurricanes and other severe tropical storms may be susceptible to human intervention, a researcher must first learn about their nature and origins. Hurricanes grow in the form of thunderstorm clusters above the tropical seas. Oceans in low-latitude areas never stop giving out heat and moisture to the atmosphere, which brings about warm, wet air above the sea surface. When this kind of air rises, the water vapour in it condenses to form clouds and precipitation. Condensation gives out heat in the process the solar heat is used to evaporate the water at the ocean surface. This so-called invisible heat of condensation makes the air more buoyant, leading to it ascending higher while reinforcing itself in the feedback process. At last, the tropical depression starts to form and grow stronger, creating the familiar eye — the calm centre hub that a hurricane spins around. When reaching the land, the hurricane no longer has a continuous supply of warm water, which causes it to swiftly weaken.

C Our current studies are inspired by my past intuition when I was learning about chaos theory 30 years ago. The reason why long-range forecasting is complicated is that the atmosphere is highly sensitive to small influences and tiny mistakes can compound fast in the weather-forecasting models. However, this sensitivity also made me realise a possibility: if we intentionally applied some slight inputs to a hurricane, we might create a strong influence that could affect the storms, either by steering them away from densely populated areas or by slowing them down. Back then, I was not able to test my ideas, but thanks to the advancement of computer simulation and



remote-sensing technologies over the last 10 years, I can now renew my enthusiasm in large-scale weather control.

D To find out whether the sensitivity of the atmospheric system could be exploited to adjust such robust atmospheric phenomena as hurricanes, our research team ran simulation experiments on computers for a hurricane named Iniki that occurred in 1992. The current forecasting technologies were far from perfect, so it took us by surprise that our first simulation turned out to be an immediate success. With the goal of altering the path of Iniki in mind, we first picked the spot where we wanted the storm to stop after six hours. Then we used this target to generate artificial observations and put these into the computer model.

E The most significant alteration turned out to be the initial temperatures and winds. Usually, the temperature changes across the grid were only tenths of a degree, but the most noteworthy change, which was an increase of almost two degrees Celsius, took place in the lowest model layer to the west of the storm centre. The calculations produced wind-speed changes of two or three miles per hour. However, in several spots, the rates shifted by as much as 20 mph due to minor redirections of the winds close to the storm's centre. In terms of structure, the initial and altered versions of Hurricane Iniki seemed almost the same, but the changes in critical variables were so substantial that the latter one went off the track to the west during the first six hours of the simulation and then travelled due north, leaving Kauai untouched.

F Future earth-orbiting solar power stations, equipped with large mirrors to focus the sun's rays and panels of photovoltaic cells to gather and send energy to the Earth, might be adapted to beam microwaves which turn to be absorbed by water vapour molecules inside or around the storm. The microwaves would cause the water molecules to vibrate and heat up the surrounding air, which then leads to the hurricane slowing down or moving in a preferred direction.

G Simulations of hurricanes conducted on a computer have implied that by changing the precipitation, evaporation and air temperature, we could make a difference to a storm's route or abate its winds. Intervention could be in many different forms: exquisitely targeted clouds bearing silver iodide or other rainfall-inducing elements might deprive a hurricane of the water it needs to grow and multiply from its formidable eyewall, which is the essential characteristic of a severe tropical storm.

Questions 27-33



Instructions to follow

- Reading Passage 3 has seven paragraphs, A-G.
- Choose the correct heading for each paragraph from the list of headings below.
- Write the correct number, i-viii, in boxes 27-33 on your answer sheet.

List of Headings

- i Hurricanes in history
- ii How hurricanes form
- iii How a laboratory exercise re-route a hurricane
- iv Exciting ways to utilise future technologies
- v Are hurricanes unbeatable?
- vi Re-visit earlier ideas
- vii How lives might have been saved
- viii A range of low-tech methods

- 27 Paragraph A
- 28 Paragraph B
- 29 Paragraph C
- 30 Paragraph D
- 31 Paragraph E
- 32 Paragraph F
- 33 Paragraph G

Questions 34-38

Instructions to follow



- Complete the summary below.
- Choose ONE WORD ONLY from the passage for each answer.
- Write your answers in boxes 34-38 on your answer sheet.

Hurricanes originate as groups of **34** over the tropical oceans. Low-latitude seas continuously provide heat and moisture to the atmosphere, producing warm, humid air above the sea surface. When this air rises, the water vapour in it condenses to form clouds and precipitation. **35** releases heat—the solar heat it took to evaporate the water at the ocean surface. This so-called **36** latent **36** of condensation makes the air more buoyant, causing it to ascend still higher in a self-reinforcing feedback process. Eventually, the tropical depression begins to organise and strengthen, **37** ming the familiar **37** —the calm central hub around which a hurricane **38** spins. On passing over **38**, the hurricane's sustaining source of warm water is cut off, which leads to the storm's rapid weakening.

Questions 39-40

Instructions to follow

- Choose the correct letter, A, B, C or D.
- Write the correct letter in boxes 39 and 40 in boxes 39 and 40 on your answer sheet.

39 What encouraged the writer to restart researching hurricane control?

- A** ☐ the huge damage hurricane triggers
- B** ☐ the developments in computer technologies
- C** ☐ the requirement of some local people
- D** ☐ the chaos theory learnt as a student



- 40 What was the writer's reaction after their first experiment?
- A ☐ surprised that their intervention had not achieved a lot.
 - B ☐ ecstatic with the achievement the first experiment had
 - C ☐ surprised that their intervention had the intended effect
 - D ☐ regretful about the impending success.



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.

Education Philosophy

A Although we lack accurate statistics about child mortality in the pre-industrial period, we do have evidence that in the 1660s, the mortality rate for children who died within 14 days of birth was as much as 30 per cent. Nearly all families suffered some premature death. Since all parents expected to bury some of their children, they found it difficult to invest in their newborn children. Moreover, to protect themselves from the emotional consequences of children's death, parents avoided making any emotional commitment to an infant. It is no wonder that we find mothers leave their babies in gutters or refer to the death in the same paragraph with reference to pickles.

B The 18th century witnessed the transformation from an agrarian economy to an industrial one, one of the vital social changes taking place in the Western world. An increasing number of people moved from their villages and small towns to big cities where life was quite different. Social supports which had previously existed in smaller communities were replaced by ruthless problems such as poverty, crime, substandard housing and disease. Due to the need for additional income to support the family, young children from the poorest families were forced into early employment and thus their childhood became painfully short. Children as young as 7 might be required to work full-time, subjected to unpleasant and unhealthy circumstances, from factories to prostitution. Although such a role has disappeared in most wealthy countries, the practice of childhood employment still remains a staple in underdeveloped countries and rarely disappeared entirely.

C The lives of children underwent a drastic change during the 1800s in the United States. Previously, children from both rural and urban families were expected to participate in everyday labour due to the bulk of manual hard working. Nevertheless, thanks to the technological advances of the mid-1800s, coupled with the rise of the middle class and redefinition of roles of family



members, work and home became less synonymous over time. People began to purchase toys and books for their children. When the country depended more upon machines, children in rural and urban areas were less likely to be required to work at home. Beginning from the Industrial Revolution and rising slowly over the course of the 19th century, this trend increased exponentially after the civil war. John Locke, one of the most influential writers of his period, created the first clear and comprehensive statement of the 'environmental position' that family education determines a child's life, and via this, he became the father of modern learning theory. During the colonial period, his teachings about child care gained a lot of recognition in America.

D According to Jean Jacques Rousseau, who lived in an era of the American and French Revolution, people were 'noble savages' in the original state of nature, meaning they are innocent, free and uncorrupted. In 1762, Rousseau wrote a famous novel Emile to convey his educational philosophy through a story of a boy's education from infancy to adulthood. This work was based on his extensive observation of children and adolescents, their individuality, his developmental theory and on the memories of his own childhood. He contrasts children with adults and describes their age-specific characteristics in terms of historical perspective and developmental psychology. Johan Heinrich Pestalozzi, living during the early stages of the Industrial Revolution, sought to develop schools to nurture children's all-round development. He agreed with Rousseau that humans are naturally good but were spoiled by a corrupt society. His approach to teaching consists of the general and special methods, and his theory was based upon establishing an emotionally healthy homelike learning environment, which had to be in place before more specific instructions occurred.

E One of the best-documented cases of Pestalozzi's theory concerned a so-called feral child named Victor, who was captured in a small town in the south of France in 1800. Prepubescent, mute, naked, and perhaps 11 or 12 years old, Victor had been seen foraging for food in the gardens of the locals in the area and sometimes accepted people's direct offers of food before his final capture. Eventually, he was brought to Paris and expected to answer some profound questions about the nature of humans, but that goal was quashed very soon. A young physician Jean Marc Gaspard Itard was optimistic about the future of Victor and initiated a five-year education plan to civilise him and teach him to speak. With a subsidy from the government, Itard recruited a local woman Madame Guerin to assist him to provide a semblance of a home for Victor, and he spent an enormous amount of time and effort working with Victor. Itard's goal to teach Victor the basics of speech could never be fully achieved, but Victor had learnt some elementary forms of communication.

F Although other educators were beginning to recognise the simple truth embedded in Rousseau's



philosophy, it is not enough to identify the stages of children's development alone. There must be a certain education which has to be geared towards those stages. One of the early examples was the invention of kindergarten, which was a word and a movement created by a German-born educator, Friedrich Froebel in 1840. Froebel placed a high value on the importance of play in children's learning. His invention would spread around the world eventually in a variety of forms. Froebel's ideas were inspired through his cooperation with Johann Heinrich Pestalozzi. Froebel didn't introduce the notion of kindergarten until 58 years old, and he had been a teacher for four decades. The notion was a haven and a preparation for children who were about to enter the regimented educational system. The use of guided or structured play was a cornerstone of his kindergarten education because he believed that play was the most significant aspect of development at this time of life. Play serves as a mechanism for a child to grow emotionally and to achieve a sense of self-worth. Meanwhile, teachers served to organise materials and a structured environment in which each child, as an individual, could achieve these goals. When Froebel died in 1852, dozens of kindergartens had been created in Germany. Kindergartens began to increase in Europe, and the movement eventually reached and flourished in the United States in the 20th century.

Questions 1-4

Instructions to follow

- Reading Passage 1 has six paragraphs, A-F.
- Choose the correct heading for each paragraph A and C-E from the list of headings below.
- Write the correct number, i-vii, in boxes 1-4 on your answer sheet.

List of Headings

- i The inheritance and development of educational concepts of different thinkers
- ii Why children had to work to alleviate the burden on family
- iii Why children are not highly valued
- iv The explanation for children dying in hospital at their early age
- v The first appearance of modern educational philosophy



- vi The application of a creative learning method on a wild kid
- vii The emergence and spread of the notion of kindergarten

1 Paragraph A

Example Answer

Paragraph B ii

2 Paragraph C

3 Paragraph D

4 Paragraph E

Questions 5-8

Instructions to follow

- Look at the following opinions or deeds (Questions 5-8) and the list of people below.
- Match each statement or description with the correct person or people A, B, or C.
- Write the correct letter, A-G, in boxes 5-8 on your answer sheet.

List of Dates

- A the 18th century (1700-1799)
- B the 19th century (1800-1899)
- C the 20th century (1900-1999)

5 the need for children to work

A ☐ B ☐ C ☐

6 the rise of the middle class

A ☐ B ☐ C ☐



7 the emergence of a kindergarten

- A ☐ B ☐ C ☐

8 the spread of kindergartens around the U.S.

- A ☐ B ☐ C ☐

Questions 9-13

Instructions to follow

- Look at the following opinions or deeds (Questions 9-10) and the list of people below.
- Match each statement or description with the correct person or people A, B, C or D.
- Write the correct letter, A-D, in boxes 9-13 on your answer sheet.
- **NB** You may use any letter more than once.

List of People

- A Jean Jacques Rousseau
B Johan Heinrich Pestalozzi
C Jean Marc Gaspard Itard
D Friedrich Froebel

9 was not successful to prove the theory

- A ☐ B ☐ C ☐ D ☐

10 observed a child's record

- A ☐ B ☐ C ☐ D ☐

11 requested a study setting with emotional comfort firstly



A ☐ B ☐ C ☐ D ☐

12 proposed that corruption was not a characteristic in people's nature

A ☐ B ☐ C ☐ D ☐

13 was responsible for an increase in the number of a type of school

A ☐ B ☐ C ☐ D ☐



Section 2

Instructions to follow

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

The start of the automobile's history went all the way back to 1769 when automobiles running on the steam engine were invented as carriers for human transport. In 1806, the first batch of cars powered by an internal combustion engine came into being, which pioneered the introduction of the widespread modern petrol-fueled internal combustion engine in 1885.

It is generally acknowledged that the first practical automobiles equipped with petrol/gasoline-powered internal combustion engines were invented almost at the same time by different German inventors who were working on their own. Karl Benz first built the automobile in 1885 in Mannheim. Benz attained a patent for his invention on 29 January 1886, and in 1888, he started to produce automobiles in a company that later became the renowned Mercedes-Benz.

As this century began, the automobile industry marched into the transportation market for wealth. Drivers at that time were an adventurous bunch; they would go out regardless of the weather condition even if they weren't even protected by an enclosed body or a convertible top. Everybody in the community knew who owned what car, and cars immediately became a symbol of identity and status. Later, cars became more popular among the public since it allowed people to travel whenever and wherever they wanted. Thus, the price of automobiles in Europe and North America kept dropping, and more people from the middle class could afford them. This was especially attributed to Henry Ford who did two crucial things. First, he set the price as reasonable as possible for his cars; second, he paid his employees enough salaries so that they could afford the cars made by their very own hands.

The trend of interchangeable parts and mass production in an assembly line style had been led by America, and from 1914, this concept was significantly reinforced by Henry Ford. This large-scale, production-line manufacture of affordable automobiles debuted. A Ford car would come off the assembly line every 15 minutes, an interval shorter than any of the former methods. Not only did it raise productivity, but also cut down on the requirement for manpower. Ford significantly lowered the chance of injury by carrying out complicated safety procedures in



production—particularly assigning workers to specific locations rather than giving them the freedom to wander around. This mixture of high wages and high efficiency was known as Fordism, which provided a valuable lesson for most major industries.

The first Jeep automobile that came out as the prototype Bantam BRC was the primary light 4-wheel-drive automobile of the U.S. Army and Allies, and during World War II and the postwar period, its sale skyrocketed. Since then, plenty of Jeep derivatives with similar military and civilian functions have been created and kept upgraded in terms of overall performance in other nations.

Through all the 1950s, engine power and automobile rates grew higher, designs evolved into a more integrated and artful form, and cars were spreading globally. In the 1960s, the landscape changed as Detroit was confronted with foreign competition. The European manufacturers used the latest technology, and Japan came into the picture as a dedicated car-making country. General Motors, Chrysler, and Ford dabbled with radical tiny cars such as the GM A-bodies with little success. As joint ventures such as the British Motor Corporation unified the market, captive imports and badge imports swept all over the US and the UK. BMC first launched a revolutionary space-friendly Mini in 1959, which turned out to harvest large global sales. Previously remaining under the Austin and Morris names, Mini later became an individual marque in 1969. The trend of corporate consolidation landed in Italy when niche makers such as Maserati, Ferrari, and Lancia were bought by larger enterprises. By the end of the 20th century, there had been a sharp fall in the number of automobile marques.

In the US, car performance dominated marketing, justified by the typical cases of pony cars and muscle cars. However, in the 1970s, everything changed as the American automobile industry suffered from the 1973 oil crisis, competition with Japanese and European imports, automobile emission-control regulations* and moribund innovation. The irony in all this was that full-size sedans such as Cadillac and Lincoln scored a huge comeback between the years of economic crisis.

In terms of technology, the most mentionable developments that postwar era had seen were the widespread use of independent suspensions, broader application of fuel injection, and a growing emphasis on safety in automobile design. Mazda achieved many triumphs with its engine firstly installed in the fore-wheel, though it gained itself a reputation as a gas-guzzler.

The modern era also has witnessed a sharp elevation of fuel power in the modern engine management system with the help from the computer. Nowadays, most automobiles in use are powered by an internal combustion engine, fueled by gasoline or diesel. Toxic gas from both fuels is



known to pollute the air and is responsible for climate change as well as global warming.

Questions 14-19

Instructions to follow

- Look at the following descriptions (Questions 14-19) and the list of people below.
- Match each description with the correct automobile, A-G.
- Write the correct letter, A-G, in boxes 14-19 on your answer sheet.

List of Automobile Brands

- A Ford
- B the BMC Mini
- C Cadillac and Lincoln
- D Mercedes Benz
- E Mazda
- F Jeep
- G Maserati, Ferrari, and Lancia

14 began producing the first automobiles

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

15 produced the industrialised cars that common consumers could afford

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

16 improved the utilisation rate of automobile space

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

17



17 upgraded the overall performance of the car continuously

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

18 maintained leading growth even during an economic recession

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

19 installed its engine on the front wheel for the first time

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

Questions 20-26

Instructions to follow

- Answer the question below.
- Choose NO MORE THAN THREE WORDS AND/OR A NUMBER from the passage for each answer.
- Write your answers in boxes 20-26 on your answer sheet.

20 What is the important feature owned by the modern engine since the 19th century?

21 What did a car symbolise to the rich at the very beginning of this century?

22 How long did Ford assembly line take to produce a car?

23 What is the major historical event that led American cars to suffer when competing with Japanese imported cars?

24 What do people call the Mazda car which was designed under the front-wheel engine?

25 What has greatly increased with the computerised engine management systems in modern society?

26 What factor is blamed for contributing to pollution, climate change and global warming?



Question 27

Instructions to follow

- Choose the correct letter, A, B, C or D.
- Write the correct letter in box 27 on your answer sheet.

27 What is the main idea of the passage?

- A ☐ The influence of the cars on the environment
- B ☐ The historical development and innovation in car design
- C ☐ The beginning of the modern designed gasoline engines
- D ☐ The history of human and the Auto industry



Section 3

Instructions to follow

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

Company Innovation

A In a shabby office in downtown Manhattan, a group of 30 AI (artificial intelligence) programmers from Umagic are attempting to mimic the brains of a famous sexologist, a celebrated dietitian, a popular fitness coach and a bunch of other specialists, Umagic Systems is an up-and-coming firm, which sets up websites that enable their clients to seek advice from the virtual versions of those figures. The users put in all the information regarding themselves and their objectives; then it's Umagic's job to give advice that a star expert would give. Even though the neuroses of American consumers have always been a marketing focus, the future of Umagic is difficult to predict (who knows what it'll be like in ten years? Asking a computer about your sex life might be either normal or crazy). However, companies such as Umagic¹ are starting to intimidate major American firms, because these young companies regard the half-crazy 'creative' ideas as the portal to their triumph in the future.

B Innovation has established itself as the catchword of American business management Enterprises have realised that they are running out of things that can be outsourced or re-engineered (worryingly, by their competitors too) Winners of today's American business tend to be companies with innovative powers such as Dell, Amazon and Wal-Mart, which have come up with concepts or goods that have reshaped their industries.

C According to a new book by two consultants from Arthur D. Little, during the last 15 years, the top 20% of firms in Fortune magazine's annual innovation survey have attained twice as much the shareholder returns as their peers. The desperate search for new ideas is the hormone for a large part of today's merger boom. The same goes for the money spent on licensing and purchasing others' intellectual property. Based on the statistics from Pasadena-based Patent & Licence



Exchange, trade volume in intangible assets in America has gone up from \$15 billion in 1990 to \$100 billion in 1998, with small firms and individuals taking up an increasing share of the rewards.

D And that terrifies big companies: it appears that innovation works incompatible with them. Some major famous companies that are always known for 'innovative ideas', such as 3M, Procter & Gamble, and Rubbermaid, have recently had dry spells. Peter Chernin, who runs the Fox TV and film empire for News Corporation, points out that 'In the management of creativity, size is your enemy.' It's impossible for someone who's managing 20 movies to be as involved as someone doing 5. Therefore, he has tried to divide the studio into smaller parts, disregarding the risk of higher expenses.

E Nowadays, ideas are more likely to prosper outside big companies. In the old days, when a brilliant scientist came up with an idea and wanted to make money out of it, he would take it to a big company first. But now, with all this cheap venture capital around, he would probably want to commercialise it by himself. So far, Umagic has already raised \$5m and is on its way to another \$25m. Even in the case of capital-intensive businesses like pharmaceuticals, entrepreneurs have the option to conduct early-stage research and sell out to the big firms when they're faced with costly, risky clinical trials. Approximately 1/3 of drug firms' total revenue is now from licensed-in technology.

F Some of the major enterprises such as General Electric and Cisco have been impressively triumphant when it comes to snatching and incorporating small companies' scores. However, other grants are concerned about the money they have to spend and the way to keep those geniuses who generated the idea. It is the dream of everyone to develop more ideas within their organisations Procter & Gamble is currently switching their entire business focus from countries to products; one of the goals is to get the whole company to accept the innovations. In other places, the craving for innovation has caused a frenzy for intrapreneurship' transferring power and establishing internal idea-workshops and tracking inventory so that the talents will stay.

G Some people don't believe that this kind of restructuring is sufficient. Clayton Christensen argues in new book that big firms' many advantages, such as taking care of their existing customers, can get in the way of innovative behaviour that is necessary for handling disruptive technologies That's why there's been the trend of cannibalisation, which brings about businesses that will confront and jeopardise the existing ones. For example, Bank One has set up Wingspan, which is an online bank that in fact competes with its actual branches.



H There's no denying that innovation is a big deal. However, do major firms have to be this pessimistic? According to a recent survey of the top 50 innovations in America by Industry Week, ideas are equally likely to come from both big and small companies. Big companies can adopt new ideas when they are mature enough and the risks and rewards have become more quantifiable.

Questions 28-33

Instructions to follow

- Reading Passage 3 has nine paragraphs, A-I.
- Which paragraph contains the following information?
- Write the correct letter, A-I, in boxes 28-33 on your answer sheet.
- **NB** You may use any letter more than once

28 an approach to retain the best employees

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐

29 safeguarding expenses on innovative ideas

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐

30 a certain counter-effect produced by integrating outside firms

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐

31 an example of three famous American companies' innovation

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐

32 an example of one company changing its focus

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐



33 an example of a company resolving financial difficulties itself

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐

Questions 34-37

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 3? In boxes 34-37 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

- 34 Umagic is the most successful innovative company in this new field.
- 35 Amazon and Wal-Mart exchanged their innovation experience.
- 36 New ideas' holders had already been known to take it to small companies in the past.
- 37 IBM failed to understand Umagic's proposal of a new idea.

Questions 38-40

Instructions to follow

- Choose the correct letter, A, B, C or D.
- Write the correct letter in box 38-40 on your answer sheet.

38 What is the author's opinion on innovation in paragraph C?

- A ☐ It only works for big companies.
- B ☐ Fortune magazine has a globally huge influence.



- C It is becoming increasingly important.
- D Its effects on American companies are more evident.

39 What is Peter Chernin's point of view on innovation?

- A ☐ Small companies are more innovative than big ones.
- B ☐ Film industry needs more innovation than other industries
- C ☐ We need to cut the cost when risks occur.
- D ☐ New ideas are more likely going to big companies.

40 What is the author's opinion on innovation at the end of this passage?

- A ☐ Umagic success lies on the accidental 'virtual expert'.
- B ☐ Innovation is easy and straightforward.
- C ☐ IBM sets a good example on innovation.
- D ☐ The author's attitude is uncertain on innovation.



IELTS Reading Test 6

Instructions to follow

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

Development of Adolescence

A. The American Academy of Pediatrics recognizes three stages of adolescence. These are early, middle and late adolescence, and each has its own developmental tasks. Teenagers move through these tasks at their own speed depending on their physical development and hormone levels. Although these stages are common to all teenagers, each child will go through them in his or her own highly individual ways.

B. During the early years young people make the first attempts to leave the dependent, secure role of a child and to establish themselves as unique individuals, independent of their parents. Early adolescence is marked by rapid physical growth and maturation. The focus of adolescents' self-concepts is thus often on their physical self and their evaluation of their physical acceptability. Early adolescence is also a period of intense conformity to peers. 'Getting along,' not being different, and being accepted seem somehow pressing to the early adolescent. The worst possibility, from the view of the early adolescent, is to be seen by peers as 'different'.

C. Middle adolescence is marked by the emergence of new thinking skills. The intellectual world of the young person is suddenly greatly expanded. Their concerns about peers are more directed toward their opposite sexed peers. It is also during this period that the move to establish



psychological independence from one's parents accelerates. Delinquency behavior may emerge since parental views are no longer seen as absolutely correct by adolescents. Despite some delinquent behavior, middle adolescence is a period during which young people are oriented toward what is right and proper. They are developing a sense of behavioral maturity and learning to control their impulsiveness.

D. Late adolescence is marked by the final preparations for adult roles. The developmental demands of late adolescence often extend into the period that we think of as young adulthood. Late adolescents attempt to crystallize their vocational goals and to establish a sense of personal identity. Their needs for peer approval are diminished and they are largely psychologically independent from their parents. The shift to adulthood is nearly complete.

E. Some years ago, Professor Robert Havighurst of the University of Chicago proposed that stages in human development can best be thought of in terms of the developmental tasks that are part of the normal transition. He identified eleven developmental tasks associated with the adolescent transition. One developmental task an adolescent needs to achieve is to adjust to a new physical sense of self. At no other time since birth does an individual undergo such rapid and profound physical changes as during early adolescence. Puberty is marked by sudden rapid growth in height and weight. Also, the young person experiences the emergence and accentuation of those physical traits that make him or her a boy or girl. The effect of this rapid change is that young adolescent often becomes focused on his or her body.

F. Before adolescence, children's thinking is dominated by a need to have a concrete example for any problem that they solve. Their thinking is constrained to what is real and physical. During adolescence, young people begin to recognize and understand abstractions. The adolescent must adjust to increased cognitive demands at school. Adults see high school in part as a place where adolescents prepare for adult roles and responsibilities and in part as preparatory for further



education. School curricula are frequently dominated by the inclusion of more abstract, demanding material, regardless of whether the adolescents have achieved formal thought. Since not all adolescents make the intellectual transition at the same rate, demands for abstract thinking prior to achievement of that ability may be frustrating.

G. During adolescence, as teens develop increasingly complex knowledge systems and a sense of self, they also adopt an integrated set of values and morals. During the early stages of moral development, parents provide their child with a structured set of rules of what is right and wrong, what is acceptable and unacceptable. Eventually, the adolescent must assess the parents' values as they come into conflict with values expressed by peers and other segments of society. To reconcile differences, the adolescent restructures those beliefs into a personal ideology.

H. The adolescent must develop expanded verbal skills. As adolescents mature intellectually, as they face increased school demands, and as they prepare for adult roles, they must develop new verbal skills to accommodate more complex concepts and tasks. Their limited language of childhood is no longer adequate. Adolescents may appear less competent because of their inability to express themselves meaningfully.

I. The adolescent must establish emotional and psychological independence from his or her parents. Childhood is marked by a strong dependence on one's parents. Adolescents may yearn to keep that safe, secure, supportive, dependent relationship. Yet, to be an adult implies a sense of independence, of autonomy, of being one's own person. Adolescents may vacillate between their desire for dependence and their need to be independent. In an attempt to assert their need for independence and individuality, adolescents may respond with what appears to be hostility and lack of cooperation.

J. Adolescents do not progress through these multiple developmental tasks separately. At any given



time, adolescents may be dealing with several. Further, the centrality of specific developmental tasks varies with early, middle, and late periods of the transition.

Questions 1-6

Instructions to follow

- Write the correct letter, A, B or C, in boxes 1-6 on your answer sheet.

Match the following characteristics with the correct stages of the adolescent.

- A early adolescence
- B middle adolescence
- C later adolescence

1 interested in the opposite sex

A ☐ B ☐ C ☐

2 exposure to danger

A ☐ B ☐ C ☐

3 the same as others

A ☐ B ☐ C ☐

4 beginning to form individual thinking without family context

A ☐ B ☐ C ☐

5 less need the approval of friends

A ☐ B ☐ C ☐



6 intellectual booming

- A ☐ B ☐ C ☐

Questions 7-10

Instructions to follow

- Complete each sentence with the correct ending, A-F, below.
- Write the correct letters, A-F, in boxes 7-10 on your answer sheet.

7 One of Havighurst's research

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

8 High School Courses

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

9 Adolescence is a time when young people

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

10 The developmental speed of thinking patterns

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

List of the statements

- A form personal identity with a set of morals and values
- B develops a table and productive peer relationships
- C are designed to be more challenging than some can accept
- D varies from people to people
- E focuses on creating a self-image



- F become an extension of their parents

Questions 11-13

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1?
Write
- TRUE If the statement is true
- FALSE If the statement is false
- NOT GIVEN If the information is not given in the passage

- 11 The adolescent lacks the ability to think abstractly.
- 12 Adolescents may have a deficit in their language ability.
- 13 The adolescent experiences a transition from reliance on his parents to independence.



Section 2

Instructions to follow

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

Intelligence and Giftedness

A. In 1904 the French minister of education, facing limited resources for schooling, sought a way to separate the unable from the merely lazy. Alfred Binet got the job of devising selection principles and his brilliant solution put a stamp on the study of intelligence and was the forerunner of intelligence tests still used today, he developed a thirty-problem test in 1905, which tapped several abilities related to intellect, such as judgment and reasoning, the test determined a given child's mental age'. The test previously established a norm for children of a given physical age. (for example, five-year-old on average get ten items correct), therefore, a child with a mental age of five should score 10, which would mean that he or she was functioning pretty much as others of that age. The child's mental age was then compared to his physical age.

B. A large disparity in the wrong direction (e.g., a child of nine with a mental age of four) might suggest inability rather than laziness and mean he or she was earmarked for special schooling, Binet, however, denied that the test was measuring intelligence, its purpose was simply diagnostic, for selection only. This message was however lost and caused many problems and misunderstanding later.

C. Although Binet's test was popular, it was a bit inconvenient to deal with a variety of physical and mental ages. So in 1912, Wilhelm Stern suggested simplifying this by reducing the two to a single number, he divided the mental age by the physical age and multiplied the result by 100. An average



child, irrespective of age, would score 100. A number much lower than 100 would suggest the need for help, and one much higher would suggest a child well ahead of his peer.

D. This measurement is what is now termed the IQ (for intelligence quotient) score and it has evolved to be used to show how a person, adult or child, performed in relation to others. (the term IQ was coined by Lewis M. Terman, professor of psychology and education of Stanford University, in 1916. He had constructed an enormously influential revision of Binet's test, called the Stanford-Binet test, versions of which are still given extensively).

E. The field studying intelligence and developing tests eventually coalesced into a sub-field of psychology called psychometrics (psycho for 'mind' and metrics for 'measurements'). The practical side of psychometrics (the development and use of tests) became widespread quite early, by 1917, when Einstein published his grand theory of relativity, mass-scale testing was already in use. Germany's unrestricted submarine warfare (which led to the sinking of the Lusitania in 1915) provoked the United States to finally enter the First World War in the same year. The military had to build up an army very quickly; it had two million inductees to sort out. Who would become officers and who enlisted men? Psychometricians developed two intelligence tests that help sort all these people out, at least to some extent, this was the first major use of testing to decide who lived and who died, as officers were a lot safer on the battlefield, the tests themselves were given under horrendously bad conditions, and the examiners seemed to lack commonsense, a lot of recruits simply had no idea what to do and in several sessions most inductees scored zero! The examiners also came up with the quite astounding conclusion from the testing that the average American adult's intelligence was equal to that of a thirteen-year-old!

F. Intelligence testing enforced political and social prejudice, their results were used to argue that Jews ought to be kept out of the united states because they were so intelligently inferior that they would pollute the racial mix, and blacks ought not to be allowed to breed at all. And so abuse and



test bias controversies continued to plague psychometrics.

G. Measurement is fundamental to science and technology, science often advances in leaps and bounds when measurement devices improve, psychometrics has long tried to develop ways to gauge psychological qualities such as intelligence and more specific abilities, anxiety, extroversion, emotional stability, compatibility, with a marriage partner, and so on. Their scores are often given enormous weight, a single IQ measurement can take on a life of its own if teachers and parents see it as definitive, it became a major issue in the 70s, when court cases were launched to stop anyone from making important decisions based on IQ test scores, the main criticism was and still is that current tests don't really measure intelligence, whether intelligence can be measured at all is still controversial, some say it cannot others say that IQ tests are psychology's greatest accomplishments.

Questions 14-17

Instructions to follow

- The Reading Passage has seven paragraphs A-G.
- Which paragraph contains the following information?

14 IQ is just one single factor of human characteristics.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

15 Discussion of the methodology behind Professor Stern's test.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

16 Inadequacy of IQ test from Binet.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐



17 The definition of IQ was created by a professor.

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

Questions 18-21

Instructions to follow

- Choose the correct answer A, B, C or D.
- Write your answers in boxes 18-21 on your answer sheet.

18 Professor Binet devises the test to

- A ☐ find those who do not perform satisfied.
 B ☐ choose the best one.
 C ☐ measure the intelligence.
 D ☐ establish the standard of intelligence.

19 The test is designed according to

- A ☐ math.
 B ☐ age.
 C ☐ reading skill.
 D ☐ gender.

20 U.S. Army used Intelligence tests to select.....

- A ☐ Officers.
 B ☐ Normal Soldiers.
 C ☐ Examiners.



Submarine drivers.

- 21 The purpose of the text is to.....
- A ☐ give credit to the contribution of Binet in IQ test.
 - B ☐ prove someone's theory is feasible.
 - C ☐ discuss the validity and limitation of the test.
 - D ☐ outline the history of the test.

Questions 22-26

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 2?
Write:
- YES If the statement is true
- NO If the statement is false
- NOT GIVEN If the information is not given in the passage

- 22 Part of the intension in designing the test by professor Binet has been misunderstood.
- 23 Age as a factor is completely overlooked in the simplified tests by Wilhelm Stern
- 24 Einstein was a counter-example of IQ test conclusion.
- 25 IQ test may probably lead to racial discrimination as a negative effect.
- 26 The author regards measuring intelligent test as a goal hardly meaningful.



Section 3

Instructions to follow

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

Communicating Styles and Conflict

Knowing your communication style and having a mix of styles on your team can provide a positive force for resolving conflict.

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.

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.

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:

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.

E. The 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.

F. The 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.

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.

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

- 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. Paragraph A

28. Paragraph B

29. Paragraph C

30. Paragraph D

31. Paragraph E

32. Paragraph F

33. Paragraph G

34. Paragraph 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.



Questions 40

Instructions to follow

- Choose the correct answer 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.

The Dover Bronze-Age Boat

A beautifully preserved boat, made around 3,000 years ago and discovered by chance in a muddy hole, has had a profound impact on archaeological research.

It was 1992. In England, workmen were building a new road through the heart of Dover, to connect the ancient port and the Channel Tunnel, which, when it opened just two years later, was to be the first land link between Britain and Europe for over 10,000 years. A small team from the Canterbury Archaeological Trust (CAT) worked alongside the workmen, recording new discoveries brought to light by the machines.

At the base of the deep shaft six meters below the modern streets, a wooden structure was revealed. Cleaning away the waterlogged site overlying the timbers, archaeologists realized its true nature. They had found a prehistoric boat, preserved by the type of sediment in which it was buried. It was then named by Dover Bronze- Age Boat.

About nine meters of the boat's length was recovered; one end lay beyond the excavation and had to be left. What survived consisted essentially of four intricately carved oak planks: two on the bottom, joined along a central seam by a complicated system of wedges and stitched to the others. The seams had been made watertight by pads of moss, fixed by wedges and yew stitches.



The timbers that closed the recovered end of the boat had been removed in antiquity when it was abandoned, but much about its original shape could be deduced. There was also evidence for missing upper side planks. The boat was not a wreck, but had been deliberately discarded, dismantled and broken. Perhaps it had been “ritually killed” at the end of its life, like other Bronze-Age objects.

With hindsight, it was significant that the boat was found and studied by mainstream archaeologists who naturally focused on its cultural context. At the time, ancient boats were often considered only from a narrower technological perspective, but news about the Dover boat reached a broad audience. In 2002, on the tenth anniversary of the discovery, the Dover Bronze-Age Boat Trust hosted a conference, where this meeting of different traditions became apparent. Alongside technical papers about the boat, other speakers explored its social and economic contexts, and the religious perceptions of boats in Bronze-Age societies. Many speakers came from overseas, and debate about cultural connections was renewed.

Within seven years of excavation, the Dover boat had been conserved and displayed, but it was apparent that there were issues that could not be resolved simply by studying the old wood.

Experimental archaeology seemed to be the solution: a boat reconstruction, half-scale or full-sized, would permit assessment of the different hypotheses regarding its build and the missing end. The possibility of returning to Dover to search for a boat’s unexcavated northern end was explored, but practical and financial difficulties were insurmountable- and there was no guarantee that the timbers had survived the previous decade in the changed environment.

Detailed proposals to reconstruct the boat were drawn up in 2004. Archaeological evidence was beginning to suggest a Bronze- Age community straddling the Channel, brought together by the sea, rather than separated by it. In a region today divided by languages and borders, archaeologists



had a duty to inform the general public about their common cultural heritage.

The boat project began in England but it was conceived from the start as a European collaboration. Reconstruction was only part of a scheme that would include a major exhibition and an extensive educational and outreach programme. Discussions began early in 2005 with archaeological bodies, universities and heritage organizations on either side of the Channel. There was much enthusiasm and support, and an official launch of the project was held at an international seminar in France in 2007. Financial support was confirmed in 2008 and the project then named BOAT 1550BC got under way in June 2011.

A small team began to make the boat at the start of 2012 on the Roman Lawn outside Dover museum. A full- scale reconstruction of a mid-section had been made in 1996, primarily to see how Bronze- Age replica tools performed. In 2012, however, the hull shape was at the centre of the work, so modern power tools were used to carve the oak planks, before turning to prehistoric tools for finishing. It was decided to make the replica half-scale for reasons of cost and time; any synthetic materials were used for the stitching, owing to doubts about the scaling and tight timetable.

Meanwhile, the exhibition was being prepared ready for opening in July 2012 at the Castle Museum in Boulogne-sur-Mer. Entitled 'Beyond the Horizon: Societies of the Channel & North Sea 3,500 years ago' it brought together for the first time a remarkable collection of Bronze- Age objects, including many new discoveries for commercial archaeology and some of the great treasures of the past. The reconstructed boat, as a symbol of the maritime connections that bound together the communities either side of the Channel, was the centrepiece.

Questions 1-5

Instructions to follow



- Choose ONE WORD ONLY from the text for each answer.

Key events

1992- the boat was discovered during the construction of a ①

2002- an international ② was held to gather information.

2004- ③ for the reconstruction were produced.

2007- the ④ Of BOAT 1550BC took place.

2012- the Bronze-Age ⑤ featured the boat and other object.

Questions 6-9

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

- ⑥ Archaeologists realized that the boat had been damaged on purpose.
- ⑦ Initially, only the technological aspects of the boat were examined.
- ⑧ Archaeologists went back to the site to try and find the missing northern.
- ⑨ Evidence found in 2004 suggested that the Bronze-Age Boat had been used for trade.

Questions 10-13



Instructions to follow

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

- 10 How far under the ground was the boat found?
- 11 What natural material had been secured to the boat to prevent water entering?
- 12 What aspect of the boat was the focus of the 2012 reconstruction?
- 13 Which two factors influenced the decision not to make a full-scale reconstruction of the boat?





Section 2

Instructions to follow

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

Antarctic Research

A. A little over a century ago, men of the ilk of Scott, Shackleton and Mawson battled against Antarctica's blizzards, cold and deprivation. In the name of Empire and in an age of heroic deeds they created an image of Antarctica that was to last well into the 20th century – an image of remoteness, hardship, bleakness and isolation that was the province of only the most courageous of men. The image was one of a place removed from everyday reality, of a place with no apparent value to anyone.

B. As we enter the 21st century, our perception of Antarctica has changed. Although physically Antarctica is no closer and probably no warmer, and to spend time there still demands a dedication not seen in ordinary life, the continent and its surrounding ocean are increasingly seen to an integral part of Planet Earth, and a key component in the Earth System. Is this because the world seems a little smaller these days, shrunk by TV and tourism, or is it because Antarctica really does occupy a central spot on Earth's mantle? Scientific research during the past half-century has revealed – and continues to reveal – that Antarctica's great mass and low temperature exert a major influence on climate and ocean circulation, factors which influence the lives of millions of people all over the globe.

C. Antarctica was not always cold. The slow break-up of the super-continent Gondwana with the northward movements of Africa, South America, India and Australia eventually created enough



space around Antarctica for the development of an Antarctic Circumpolar Current (ACC), that flowed from west to east under the influence of the prevailing westerly winds. Antarctica cooled, its vegetation perished, glaciation began and the continent took on its present-day appearance. Today the ice that overlies the bedrock is up to 4km thick, and surface temperatures as low as -89.2°C have been recorded. The icy blast that howls over the ice cap and out to sea – the so-called katabatic wind – can reach 300 km/hr, creating fearsome wind-chill effects.

D. Out of this extreme environment come some powerful forces that reverberate around the world. The Earth's rotation, coupled to the generation of cells of low pressure off the Antarctic coast, would allow Astronauts a view of Antarctica that is as beautiful as it is awesome. Spinning away to the northeast, the cells grow and deepen, whipping up the Southern Ocean into the mountainous seas so respected by mariners. Recent work is showing that the temperature of the ocean may be a better predictor of rainfall in Australia than is the pressure difference between Darwin and Tahiti – the Southern Oscillation Index. By receiving more accurate predictions, graziers in northern Queensland are able to avoid overstocking in years when rainfall will be poor. Not only does this limit their losses but it prevents serious pasture degradation that may take decades to repair. CSIRO is developing this as a prototype forecasting system, but we can confidently predict that as we know more about the Antarctic and the Southern Ocean we will be able to enhance and extend our predictive ability.

E. The ocean's surface temperature results from the interplay between deep-water temperature, air temperature and ice. Each winter between 4 and 19 million square km of sea ice form, locking up huge quantities of heat close to the continent. Only now can we start to unravel the influence of sea ice on the weather that is experienced in southern Australia. But in another way, the extent of sea ice extends its influence far beyond Antarctica. Antarctic krill – the small shrimp-like crustaceans that are the staple diet for baleen whales, penguins, some seals, flighted sea birds and many fish – breed well in years when sea ice is extensive and poorly when it is not. Many species of



baleen whales and flighted sea birds migrate between the hemispheres and when the krill are less abundant they do not thrive.

F. The circulatory system of the world's oceans is like a huge conveyor belt, moving water and dissolved minerals and nutrients from one hemisphere to the other, and from the ocean's abyssal depths to the surface. The ACC is the longest current in the world and has the largest flow. Through it, the deep flows of the Atlantic, Indian and Pacific Oceans are joined to form part of single global thermohaline circulation. During winter, the howling katabatics sometimes scour the ice off patches of the sea's surface leaving large ice-locked lagoons, or 'polynyas'. Recent research has shown that as fresh sea ice forms, it is continuously stripped away by the wind and maybe blown up to 90km in a single day. Since only freshwater freezes into ice, the water that remains becomes increasingly salty and dense, sinking until it spills over the continental shelf. Coldwater carries more oxygen than warm water, so when it rises, well into the northern hemisphere, it reoxygenates and revitalises the ocean. The state of the northern oceans and their biological productivity owe much to what happens in the Antarctic.

Questions 14-18

Instructions to follow

- The Reading Passage 2 has six paragraphs A-F.
- Which paragraph contains the following information?
- Write the correct letter A-F, in boxes 14-18 on your answer sheet.

14 The example of research on weather prediction on agriculture.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

15 Antarctic sea ice brings life back to the world oceans' vitality.



A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

16 A food chain that influences the animals living pattern based on Antarctic fresh sea ice.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

17 The explanation of how atmosphere pressure above Antarctica can impose an effect on global climate change.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

18 Antarctica was once thought to be a forgotten and insignificant continent.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

Questions 19-21

Instructions to follow

- Please match the natural phenomenon with the correct determined factor.
- Write the correct letter A-F, in boxes 19-21 on your answer sheet.

19 Globally, mass Antarctica's size and influence climate change.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

20 contributory to western wind.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

21 The Southern Oscillation Index based on air pressure can predict in



Australia.

- ☒ A ☐ B ☒ C ☐ D ☐ E ☐ F
- A. Antarctic Circumpolar Current (ACC)
 B. katabatic winds
 C. rainfall
 D. temperature
 E. glaciers
 F. pressure

Questions 22-26

Instructions to follow

- Choose the correct answer A, B, C or D.
- Write your answer in box 22-26 on your answer sheet.

22 In Paragraph B, the author wants to tell which of the following truth about the Antarctic?

- ☒ A ☐ B ☐ C ☐ D
- A. To show Antarctica has been a central topic of global warming in Mass media
 B. To illustrate its huge sea ice brings food to million lives to places in the world
 C. To show it is the heart and its significance to the global climate and current
 D. To illustrate it locates in the central spot on Earth geographically

23 Why do Australian farmers keep an eye on the Antarctic Ocean temperature?

- ☒ A ☐ B ☐ C ☐ D
- A. Help farmers reduce their economic or ecological losses
 B. Retrieve grassland decreased in the overgrazing process
 C. Prevent animal from dying
 D. A cell provides fertilizer for the grassland

24 What is the final effect of katabatic winds?



- ☐ A Increase the moving speed of ocean current
- ☐ B Increase salt level near the ocean surface
- ☐ C Bring fresh ice into southern oceans
- ☐ D Pile up the mountainous ice cap respected by mariners

25 The break of the continental shelf is due to the

- ☐ A salt and density increase.
- ☐ B salt and density decrease.
- ☐ C global warming resulting in a rising temperature.
- ☐ D fresh ice melting into ocean water.

26 The decrease in the number of Whales and seabirds is due to

- ☐ A killers whales are more active around.
- ☐ B Sea birds are affected by high sea level salty.
- ☐ C less sea ice reduces the productivity of food source.
- ☐ D seals fail to reproduce babies.



Section 3

Instructions to follow

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

When conversation flows

We spend a large part of our daily life talking with other people and, consequently, we are very accustomed to the art of conversing. But why do we feel comfortable in conversations that have flow, but get nervous and distressed when a conversation is interrupted by unexpected silences? To answer this question we will first look at some of the effects of conversational flow. Then we will explain how flow can serve different social needs.

The positive consequences of conversational flow show some similarities with the effects of 'processing fluency'. Research has shown that processing fluency – the ease with which people process information – influences people's judgments across a broad range of social dimensions. For instance, people feel that when something is easily processed, it is more true or accurate.

Moreover, they have more confidence in their judgments regarding information that came to them fluently, and they like things that are easy to process more than things that are difficult to process. Research indicates that a speaker is judged to be more knowledgeable when they answer questions instantly; responding with disfluent speech markers such as 'uh' or 'urn' or simply remaining silent for a moment too long can destroy that positive image.

One of the social needs addressed by conversational flow is the human need for 'synchrony' – to be 'in sync' or in harmony with one another. Many studies have shown how people attempt to synchronise with their partners, by coordinating their behaviour. This interpersonal coordination



underlies a wide array of human activities, ranging from more complicated ones like ballroom dancing to simply walking or talking with friends.

In conversations, interpersonal coordination is found when people adjust the duration of their utterances and their speech rate to one another so that they can enable turn-taking to occur, without talking over each other or experiencing awkward silences. Since people are very well-trained in having conversations, they are often able to take turns within milliseconds, resulting in a conversational flow of smoothly meshed behaviours. A lack of flow is characterised by interruptions, simultaneous speech or mutual silences. Avoiding these features is important for defining and maintaining interpersonal relationships.

The need to belong has been identified as one of the most basic of human motivations and plays a role in many human behaviours. That conversational flow is related to belonging may be most easily illustrated by the consequences of flow disruptions. What happens when the positive experience of flow is disrupted by, for instance, a brief silence? We all know that silences can be pretty awkward, and research shows that even short disruptions in conversational flow can lead to a sharp rise in distress levels.

In movies, silences are often used to signal non-compliance or confrontation (Piazza, 2006). Some researchers even argue that 'silencing someone' is one of the most serious forms of exclusion. Group membership is of elementary importance to our wellbeing and because humans are very sensitive to signals of exclusion, a silence is generally taken as a sign of rejection. In this way, a lack of flow in a conversation may signal that our relationship is not as solid as we thought it was.

Another aspect of synchrony is that people often try to validate their opinions to those of others. That is, people like to see others as having similar ideas or worldviews as they have themselves, because this informs people that they are correct and their worldviews are justified. One way in



which people can justify their worldviews is by assuming that, as long as their conversations run smoothly, their interaction partners probably agree with them. This idea was tested by researchers using video observations.

Participants imagined being one out of three people in a video clip who had either a fluent conversation or a conversation in which flow was disrupted by a brief silence. Except for the silence, the videos were identical. After watching the video, participants were asked to what extent the people in the video agreed with each other. Participants who watched the fluent conversation rated agreement to be higher than participants watching the conversation that was disrupted by a silence, even though participants were not consciously aware of the disruption. It appears that the subjective feeling of being out of sync informs people of possible disagreements, regardless of the content of the conversation.

Because people are generally so well- trained in having smooth conversations, any disruption of this flow indicates that something is wrong, either interpersonally or within the group as a whole. Consequently, people who do not talk very easily may be incorrectly understood as being less agreeable than those who have no difficulty keeping up a conversation.

On a societal level, one could even imagine that a lack of conversational flow may hamper the integration of immigrants who have not completely mastered the language of their new country yet. In a similar sense, the ever- increasing number of online conversations may be disrupted by misinterpretations and anxiety that are produced by insuperable delays in the Internet connection. Keeping in mind the effects of conversational flow for feelings of belonging and validation may help one to be prepared to avoid such misunderstandings in future conversations.



Questions 27-32

Instructions to follow

- Do the following statements agree with the claims of the writer in the text?
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

- 27 Conversations occupies much of our time.
- 28 People assess information according to how readily they can understand it.
- 29 A quick response to a question is thought to show lack of knowledge.
- 30 Video observations have often been used to assess conversational flow.
- 31 People who talk less often have clearer ideas than those who talk a lot.
- 32 Delays in online chat fail to have the same negative effect as disruptions that occur in natural conversation.

Questions 33-40

Instructions to follow

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

There is a human desire to co-ordinate 33 in an effort to be 'in harmony'.
This co-ordination can be seen in conversations when speakers alter the speed and extent of their speech in order to facilitate 34 This is often achieved within milliseconds: only tiny pauses take place when a conversation flows; when it doesn't, there 35



are and silences, or people talk at the same time.

Our desire to³⁶..... is also an important element of conversation flow.

According to research,³⁷..... increase even if silences are brief. Humans have a basic need to be part of a group, and they experience³⁸ a sense of if silences exclude them.

People also attempt to coordinate their opinions in conversation. In an experiment, participants' judgement of the overall³⁹..... among speakers was tested using videos of fluent and a slightly disrupted conversation. The results showed that⁴⁰ the of the speakers' discussions was less important than the perceived synchrony of the speakers.





IELTS Reading Test 8

Section 1

Instructions to follow

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

How to handle the Sun

A. The medical world appears to be divided on the effects of the sun upon the human body. From statements like, “There is no known relationship between a tan and health” to “perhaps sun-tanned skin absorbs the ultraviolet rays and converts them into helpful energy”, there are some things which are still the topic of research. Doctors agree on one of the benefits of the sun – vitamin D.

It is well known that vitamin D is acquired from the direct rays of the sun – an entirely separate miracle from sun tanning. The sun’s ultraviolet rays penetrate only a tiny amount into the human skin, but in the process, they irradiate an element in the skin called ergosterol, which is a substance that stores up reserves of vitamin D received from the sun. This is both healthy and beneficial for human skin.

B. All around the Western World, people have developed an obsession with the sun. In many western countries, a suntan has become the trade-mark of a healthy, active, outdoor person. The basic reddish hue just beneath the surface of our skin is the outward reflection of the millions of red corpuscles flowing through tiny blood vessels. This is most noticeable in the pure skin of a baby which can change in a moment from porcelain white (with anger or a switch in temperature) to crimson. In Caucasians, this colouring is somewhat hidden by an acquired layer of sun-made



pigment, which varies in tone according to the complexion and occupation of the individual.

C. Locale plays a big part in the effectiveness of the suntan. Mountain tops and beaches are nonpareil sun spas because they receive far purer sunlight than the rest of the land. Urban areas with their smoke and smog act as a filter removing all the healthy properties of the sun. Perhaps the seashore is best of all, with its air estimated to have at least a fifth of a percent more oxygen than inland ether – free of city and inland dust, tars, pollen, and allergens.

D. The sun has long been called nature's greatest health giver and healer and has played a chief role at health resorts ever since August Rollick, the Swiss father of heliotherapy, opened his first high-Alps sanatorium in 1903. Dr. W. W. Coblenz suggests that the sun cure is a major factor in the treatment of at least 23 skin diseases, ranging from acne and eczema to ulcers and wounds.

Another specialist, Dr. Richard Kovacs writes, "Sun treatment is often helpful to persons suffering from general debility – repeated colds, respiratory diseases, influenza and the like".

After a long winter, the return to the sun writes Dr. Leonard Dodds, the British sunlight scholar, "is a general stimulus to the body, more potent if applied after a period when it has been lacking which gradually loses its effect if exposure is over prolonged, even when not excessive".

E. Over many years of study, dermatologists have proven that excessive exposure to sunlight for years is responsible for a large proportion of skin cancer amongst the population. Those with the greatest chance of doing permanent damage to their skin are the year-round outdoor workers – 90% of which occur on the heavily exposed hands and face. The first line of defense against permanent sun damage is the skin's own natural fatty matter and sweat, which combine to form an oily acid surface shield against the ultraviolet rays.

At the beach, the saltwater washes away this natural oily coat, the hot sun overworks the sweat glands so that the excess becomes ineffective and the dry wind and hot sun combine to dehydrate



the skin itself. Over the years, women have shown far greater wisdom in the care of their skin than men. Since the ladies of ancient Egypt first began to apply the fat of the so-called sacred temple cats to their faces, women have been tireless in waging this battle against damage to the skin from the sun. Both sexes now contribute annually to a multi-million dollar global sunscreen business.

F. Other parts of the human body which tend to suffer from exposure to the sun are the eyes and hair. Many years ago, optometrists undertook studies in America to examine the influence of the sun upon the eyes by studying Atlantic City lifeguards and found that even a few hours in the bright sun without sunglasses could cause a significant loss of vision – a loss that might take several weeks from which to recover.

So gradual was the change that the lifeguards were unaware that their sight had been affected. The solution to this problem was to introduce sunglasses as a standard part of the lifeguard uniform. These were dark enough to absorb the sun's harmful UV rays and most of its infrared and ultraviolet rays.

G. Of a lesser impact is the effect of the sun upon the hair. The penalty of the sun parching is a brittle dryness. Haircare professionals recommend a nutritional cream treatment with a substance containing lanolin to bring your hair back its natural softness, these usually come in the form of leave-in conditioners, and should be applied frequently, just as you would a sunscreen for the skin. Or, easier still, wear a hat. Wearing a hat has a dual effect: it protects the hair and helps to prevent the most dangerous of outdoor afflictions: sunstroke.

Questions 1-4

Instructions to follow



- Look at the following people (Questions 1-4) and the list of statements below.
- Match each person with the correct statement.
- Write the correct letter A-H in boxes 1-4 on your answer sheet.

1 Richard Kovacs

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

2 August Rollick

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

3 W. Coblenz

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

4 Leonard Dodds

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

- A believes that the benefits of the sun are not scientifically provable
- B claims to have discovered the vitamin released in the skin by the sun
- C suggests that the sun is an excellent healer
- D invented the first sunscreen
- E suggests that the sun assists with common illnesses
- F thinks that initially, the sun is of benefit to the body
- G is unsure about the benefits of the sun
- H thinks the location is very important in maximizing the benefit from the sun.

Questions 5-9



Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1? 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

- 5 Most doctors agree when it comes to the health benefits of the sun.
- 6 Beaches are best for a suntan because the air has far less pollution.
- 7 Women applied fat to their skin for protection from the sun.
- 8 Extended exposure of the eyes to the sun can lead to blindness.
- 9 The human eye cannot heal itself when it is damaged by the sun.

Questions 10-14

Instructions to follow

- Complete the summary using the words from the box.

Handling the Sun

Many doctors agree that skin cancer can be caused by excessive exposure to the sun. As far as the human body is concerned, it is primarily the face and hands that are¹⁰..... When human skin is exposed to the sun, the body has a defense: a¹¹..... of the skin's natural oils and acids. For some time, women have been more effective than men in¹²..... for their skin. Eyes are a significant part of the body that are negatively affected by the sun.¹³.....

The damage often goes undetected because it happens quite On the other



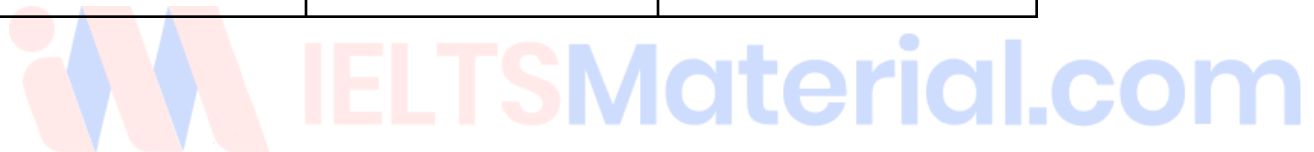
hand, hair becomes quite dry and brittle when exposed to the sun for an extended period. A

lanolin-based conditioner is recommended by hair care professionals to

14

..... this problem. Perhaps a simple hat may be the best solution for hair.

overcome	maintaining	located
mixed	quickly	extended
prolonged	blend	arrangement
succeed	combined	surprisingly
slowly	triumph	affected
caring	minding	





Section 2

Instructions to follow

- You should spend 20 minutes on Questions 15-26 which are based on Reading Passage 2.

Locked Doors Open Access

A. The word, 'security', has both positive and negative connotations. Most of us would say that we crave security for all its positive virtues, both physical and psychological – its evocation of the safety of home, of undying love, or of freedom from need. More negatively, the word nowadays conjures up images of that huge industry that has developed to protect individuals and property from invasion by 'outsiders', ostensibly malicious and intent on theft or wilful damage.

B. Increasingly, because they are situated in urban areas of escalating crime, those buildings which used to allow free access to employees and other users (buildings such as offices, schools, colleges, or hospitals) now do not. Entry areas which in another age were called 'Reception' are now manned by security staff. Receptionists, whose task it was to receive visitors and to make them welcome before passing them on to the person they had come to see, have been replaced by those whose task it is to bar entry to the unauthorized, the unwanted or the plain unappealing.

C. Inside, these buildings are divided into 'secure zones' which often have all the trappings of combination locks and burglar alarms. These devices bar entry to the uninitiated, hinder circulation and create parameters of time and space for user access. Within the spaces created by these zones, individual rooms are themselves under lock and key, which is a particular problem when it means that working space becomes compartmentalized.



D. To combat the consequent difficulty of access to people at a physical level, we have now developed technological access. Computers sit on every desk and are linked to one another, and in many cases to an external universe of other computers so that messages can be passed to and fro. Here too, security plays a part, since we must not be allowed access to messages destined for others. And so the password was invented. Now correspondence between individuals goes from desk to desk and cannot be accessed by colleagues. Library catalogues can be searched from one's desk.

E. Papers can be delivered to, and received from, other people at the press of a button. And yet it seems that, just as work is isolating individuals more and more, organizations are recognizing the advantages of 'team-work'; perhaps in order to encourage employees to talk to one another again. Yet, how can groups work in teams if the possibilities for communication are reduced? How can they work together if e-mail provides a convenient electronic shield behind which the blurring of public and private can be exploited by the less scrupulous? If voice-mail walls up messages behind a password? If I can't leave a message on my colleague's desk because his office is locked?

F. Team-work conceals the fact that another kind of security, 'job security', is almost always not on offer. Just as organizations now recognize three kinds of physical resources: those they buy, those they lease long-term, and those they rent short-term – so it is with their human resources. Some employees have permanent contracts, some have short-term contracts, and some are regarded simply as casual labour.

G. Telecommunication systems offer us the direct line, which means that individuals can be contacted without the caller having to talk to anyone else. Voice-mail and the answer-phone mean that individuals can communicate without ever actually talking to one another. If we are unfortunate enough to contact organizations with sophisticated touch-tone systems, we can buy things and pay for them without ever speaking to a human being.



H. To combat this closing in on ourselves we have the Internet, which opens out communication channels more widely than anyone could possibly want or need. An individual's electronic presence on the Internet is known as a 'Home Page' – suggesting the safety and security of an electronic hearth. An elaborate system of 3-dimensional graphics distinguishes this very 2-dimensional medium of 'web sites'. The nomenclature itself creates the illusion of a geographical entity, that the person sitting before the computer is travelling, when in fact the 'site' is coming to him. 'Addresses' of one kind or another move to the individual, rather than the individual moving between them, now that location is no longer geographical.

I. An example of this is the mobile phone. I am now not available either at home or at work, but wherever I take my mobile phone. Yet, even now, we cannot escape the security of wanting to 'locate' the person at the other end. It is no coincidence that almost everyone we see answering or initiating a mobile phone-call in public begins by saying where he or she is.

Questions 15-18

Instructions to follow

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

15 According to the author, one thing we long for is

- ☐ A the safety of the home
- ☐ B security
- ☐ C open access
- ☐ D positive virtues



- 16 Access to many buildings
- A ☐ is unauthorized
 - B ☐ is becoming more difficult
 - C ☐ is a cause of crime in many urban areas
 - D ☐ used to be called 'Reception'

- 17 Buildings used to permit access to any users
- A ☐ but now they do not
 - B ☐ and still do now
 - C ☐ especially offices and schools
 - D ☐ especially in urban areas

- 18 Secure zones
- A ☐ do not allow access to the user
 - B ☐ compartmentalize the user
 - C ☐ are often like traps
 - D ☐ are not accessible to everybody

Questions 19-24

Instructions to follow

- Complete the summary below using words from the box.

The problem of physical access to buildings has now been¹⁹ by technology. Messages²⁰ with passwords²¹ allowing to read someone else's messages. But, while²² individuals are becoming increasingly Socially by the way, they do their job, at the same



time more value is being put on However, e-mail and voice-mail have led to a opportunities for person-to-person communication.

Reducing off	Computer	Other people	Isolating
Teamwork	Decrease in	Similar	Solved
No different from	Overcame	Physical	Protected
Combat	Developed	Cut-off	

Questions 25-26

Instructions to follow

- Complete the sentences below, with words taken from Reading Passage 2.
- Use NO MORE THAN THREE WORDS for each answer.

25 The writer does not like.....

26 An individual's Home Page indicates their.....on the Internet.



Section 3

Instructions to follow

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

THE MPEMBA EFFECT

In 300 BC, the famous philosopher Aristotle wrote about a strange phenomenon that he had observed: "Many people, when they want to cool water quickly, begin by putting it in the sun." Other philosophers over the ages noted the same result, but were unable to explain it.

In 1963, a young Tanzanian student named Erasto Mpemba noticed that the ice cream he was making froze faster if the mix was placed in the freezer while warm than if it were at room temperature. He persisted in questioning why this occurred, and eventually physicist Denis Osborne began a serious investigation into what is now known as the Mpemba Effect. He and Mpemba co-authored a paper in New Scientist in 1969, which produced scientific descriptions of some of the many factors at work in freezing water.

It was initially hypothesised that the warm bowl melted itself a place in the ice on the freezer shelf, thus embedding its base in a 'nest' of ice, which would accelerate freezing. The hypothesis was tested by comparing the result when bowls of warm water were placed on ice and on a dry wire shelf; this demonstrated that the ice nest actually had little effect. A second suggestion was that the warmer water would be evaporating at its surface, thus reducing the volume needing to be frozen, but this idea was also shown to be insignificant.

Thermometers placed in the water showed that the cooler water dropped to freezing temperature well before the warmer bowlful, and yet the latter always froze solid first. Experiments at different temperatures showed that water at 50°C took the longest to freeze in a conventional freezer, while water initially at 35°C was quickest. On further examination, an explanation for this paradox began



to emerge. Losing heat from the water occurs at the points where it is in touch with the colder atmosphere of the freezer, namely the sides of the bowl and the water surface.

A warm surface will lose heat faster than a cold one because of the contrast between the temperatures; but of course there is more heat to be lost from one bowl than the other! If the surface can be kept at a higher temperature, the higher rate of heat loss will continue. As long as the water remains liquid, the cooling portion on top will sink to the bottom of the bowl as the warmer water below rises to take its place. The early freezing that may occur on the sides and base of the container will amplify the effect.

The bowl that is more uniformly cold will have far less temperature difference so the water flow will be minimal. Another inhibiting factor for this container is that ice will also form quite quickly on the surface. This not only acts as insulation, but will virtually stop the helpful effects of the water circulating inside the bowl.

Ultimately, the rate of cooling the core of this body of water becomes so slow that the other warmer one is always fully frozen first. While there are limitations to this comparison (for example, we would not see such a result if one quantity were at 10C and another at 990C) this counter-intuitive result does hold true within the 5–350C range of temperatures indicated previously.

Since this paper was published, the validity of the research findings has been questioned by a number of reviewers. They point out that the initial experimental question was not clearly defined; for example, the researchers needed to decide on exactly what constituted freezing the water. They also state that the rate at which water freezes depends on a large number of variables.

Container size is one of these; for the Mpemba Effect to be noticed, the container must be large enough to allow a free circulation of water to take place, yet small enough for the freezing areas of the side and base to be effective at extracting heat too. Secondly, research at a University in St Louis, Missouri, suggests that the Mpemba Effect may be affected by water purity, or by dissolved gas in the water.

Distilled water is totally free of the particles that are common in normal drinking water or mineral



water. When suspended in water, these particles may have a small effect on the speed of cooling, especially as ice molecules tend to expel them into the surrounding water, where they become more concentrated. Just as salt dissolved in water will raise the boiling point and lower the temperature at which it freezes, the researchers found that the final portion of ordinary water needed extra cooling, below zero, before all was frozen solid.

One more factor that can distort the effect is observed if the bowls are not placed simultaneously into the same freezer. In this case, the freezer thermostat is more likely to register the presence of a hotter bowl than a colder one, and therefore the change in internal temperature causes a boost of freezing power as the motor is activated.

The Mpemba Effect is still not fully understood, and researchers continue to delve into its underlying physics. Physicists cannot reach consensus. Some suggest that supercooling¹ is involved; others that the molecular bonds in the water molecules affect the rate of cooling and freezing of water. A 2013 competition to explain the phenomenon run by the Royal Society of Chemistry attracted more than 22,000 entries, with the winning one suggesting supercooling as an important factor so it seems the question and its underlying explanation continue to fascinate.

Questions 27-33

Instructions to follow

- Write the correct letter, A–O, in boxes 27–33 on your answer sheet.

For more than 2000 years people have wondered why raising the²⁷..... of cold water before cooling it results in more rapid cooling. At first researchers thought that a warm container created its own²⁸..... which made the water freeze faster, but comparisons with containers resting on a dry²⁹..... indicated that this was inaccurate. Evaporation of water proved not to be a³⁰.....



Temperature measurements showed that, although the water in the cooler container reached 00C before the warmer one, it took longer to actually solidify. The water temperature drops the most at the top and sides of the container. Provided there is a temperature³¹....., the water will continue to circulate and to cool down. Cooler water will have less³²..... water , and thus a slower rate of freezing. If ice forms on the top of the water, this will³³..... further slow the of freezing, but if it forms on the bottom and the sides of the container, this will increase the rate of cooling.

- A ☐ melt
- B ☐ element
- C ☐ process
- A ☐ centre
- E ☐ acceleration
- F ☐ surfaces
- G ☐ factor
- H ☐ hollow
- I ☐ matter
- J ☐ circulation
- K ☐ limit
- L ☐ significance
- M ☐ theory
- N ☐ difference
- O ☐ result
- P ☐ temperature

Questions 34-39

Instructions to follow



- Do the following statements agree with the information given in Reading Passage 3? In boxes 34-39 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

- 34 The Mpemba Effect cannot be seen when comparing liquids with an extreme temperature difference.
- 35 Osborne and Mpemba's results are still widely accepted today.
- 36 The size of the container does not alter the Mpemba Effect.
- 37 Osborne and Mpemba experimented on both pure and impure water.
- 38 One variable is the timing of containers in a freezer.
- 39 Physicists now agree that supercooling accounts for the Mpemba Effect.

Questions 40

Instructions to follow

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

- 40 The Mpemba Effect is best summed up as the observation that
- ☐ A ice cream freezes at different temperatures.
 - ☐ B different sources of heat result in water cooling at different rates.
 - ☐ C salt water freezes at a lower temperature than ordinary water.
 - ☐ D warmer water can freeze faster than colder water.



IELTS Reading Test 9

Section 1

Instructions to follow

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

A Watchful Eye on the Bridges

A. Most road and rail bridges are only inspected visually, if at all. Every few months, engineers have to clamber over the structure in an attempt to find problems before the bridge shows obvious signs of damage. Technologies developed at Los Alamos National Laboratory, New Mexico, and Texas A&M University may replace these surveys with microwave sensors that constantly monitor the condition of bridges.

B. "The device uses microwaves to measure the distance between the sensor and the bridge, much like radar does," says Albert Migliori, a Los Alamos physicist "Any load on the bridge – such as traffic induces displacements, which change that distance as the bridge moves up and down." By monitoring these movements over several minutes, the researchers can find out how the bridge resonates. Changes in its behaviour can give an early warning of damage.

C. The Interstate 40 bridge over the Rio Grande river in Albuquerque provided the researchers with a rare opportunity to test their ideas. Chuck Farrar, an engineer at Los Alamos, explains: "The New Mexico authorities decided to raze this bridge and replace it. We were able to mount instruments on it, test it under various load conditions and even inflict damage just before it was demolished." In the 1960s and 1970s, 2500 similar bridges were built in the US. They have two steel girders supporting the load in each section. Highway experts know that this design is "fracture critical"



because a failure in either girder would cause the bridge to fail.

D. After setting up the microwave dish on the ground below the bridge, the Los Alamos team installed conventional accelerometers at several points along the span to measure its motion. They then tested the bridge while traffic roared across it and while subjecting it to pounding from a “shaker”, which delivered precise punches to a specific point on the road.

E. “We then created damage that we hoped would simulate fatigue cracks that can occur in steel girders,” says Farrar. They first cut a slot about 60 centimetres long in the middle of one girder. They then extended the cut until it reached the bottom of the girder and finally they cut across the flange – the bottom of the girder’s “I” shape.

F. The initial, crude analysis of the bridge’s behaviour, based on the frequency at which the bridge resonates, did not indicate that anything was wrong until the flange was damaged. But later the data were reanalysed with algorithms that took into account changes in the mode shapes of the structure – shapes that the structure takes on when excited at a particular frequency. These more sophisticated algorithms, which were developed by Norris Stubbs at Texas A&M University, successfully identified and located the damage caused by the initial cut.

G. “When any structure vibrates, the energy is distributed throughout with some points not moving, while others vibrate strongly at various frequencies,” says Stubbs. “My algorithms use pattern recognition to detect changes in the distribution of this energy.” NASA already uses Stubbs’ method to check the behaviour of the body flap that slows space shuttles down after they land.

H. A commercial system based on the Los Alamos hardware is now available, complete with the Stubbs algorithms, from the Quatro Corporation in Albuquerque for about \$100,000. Tim Darling, another Los Alamos physicist working on the microwave interferometer with Migliori, says that as



the electronics become cheaper, a microwave inspection system will eventually be applied to most large bridges in the US. “In a decade I would like to see a battery or solar-powered package mounted under each bridge, scanning it every day to detect changes,” he says.

Questions 1-4

Instructions to follow

- Choose the correct answer A, B, C or D.
- Write your answers in boxes 1-4 on your answer sheet.

1 How was the traditional way to prevent damage to the bridges before the invention of the new monitoring system?

- ☐ A Bridges have to be tested in every movement on two points.
☐ B Bridges have to be closely monitored by microwave devices.
☐ C Bridges have already been monitored by sensors.
☐ D Bridges have to be frequently inspected by professional workers with naked eyes.

2 The defect was not recognized by a basic method in the beginning

- ☐ A until the middle of the faces of bridges has fractured.
☐ B until the damage appears along and down to the flanges.
☐ C until the points on the road have been punched.
☐ D until the frequency of resonates appears disordered.

3 Why did the expert believe there is a problem for the design called “fracture critical”?



- ☐ A Engineers failed to apply the newly developed construction materials.
- ☐ B The supporting parts of the bridges may crack and cause the bridge to fail.
- ☐ C There was not enough finance to repair the bridges.
- ☐ D There were bigger traffic load conditions than the designers had anticipated.

4 How do the new microwave monitors find out the problems of bridges?

- ☐ A by changing the distance between the positions of devices
- ☐ B by controlling the traffic flow on the bridges
- ☐ C by monitoring the distance caused by traffic between two points
- ☐ D by displacement of the several critical parts in the bridges

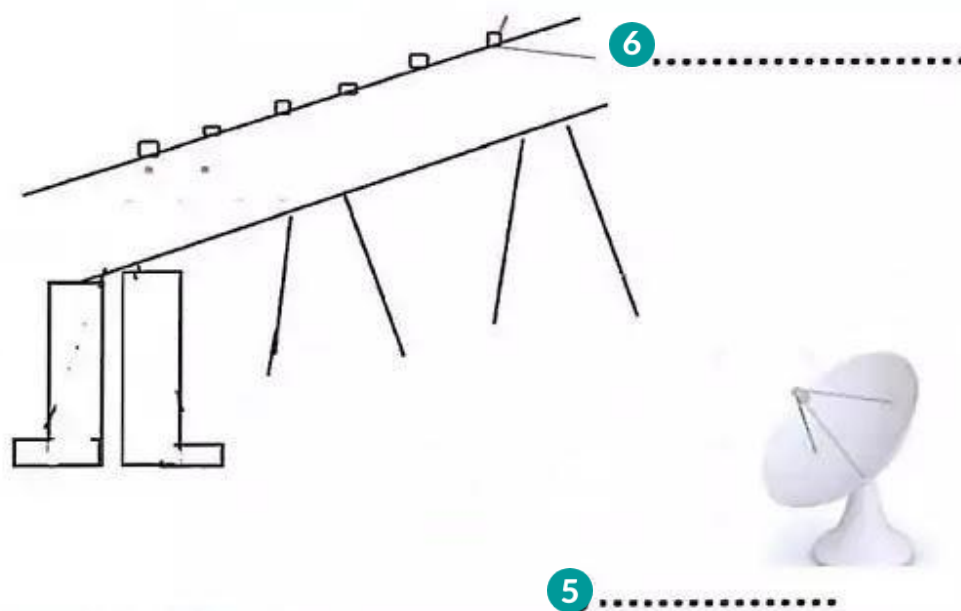
Questions 5-6

Instructions to follow

- Filling the blanks in the diagram below.
- Write the correct answer in boxes 5-6 on your answer sheet.



The diagram of monitoring a bridge



Questions 7-13

Instructions to follow

- The reading Passage has eight paragraphs, A–H.
- Which paragraph contains the following information?
- Write the correct letter, A–H, in boxes 7–13 on your answer sheet.

7 trying to find problems before the bridge shows obvious signs of damage.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

8 the shapes that the structure takes when it enjoys a certain frequency.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐



9 the chance they get an honourable contract.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

10 hit it with a "shaker" at a certain point on the road.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

11 how is the pressure that they have many a great chance to test bridges

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

12 how the damage was deliberately created by the researchers

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐

13 explanation of the mechanism for the new microwave monitoring to work

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐



Section 2

Instructions to follow

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

The Ant and the Mandarin

In 1476, the farmers of Berne in Switzerland decided there was only one way to rid their fields of the cutworms attacking their crops. They took the pests to court. The worms were tried, found guilty and excommunicated by the archbishop. In China, farmers had a more practical approach to pest control. Rather than relying on divine intervention, they put their faith in frogs, ducks and ants. Frogs and ducks were encouraged to snap up the pests in the paddies and the occasional plague of locusts. But the notion of biological control began with an ant.

More specifically, it started with the predatory yellow citrus ant *Oecophylla smaragdina*, which has been polishing off pests in the orange groves of southern China for at least 1,700 years. The yellow citrus ant is a type of weaver ant, which binds leaves and twigs with silk to form a neat, tent-like nest. In the beginning, farmers made do with the odd ants' nests here and there. But it wasn't long before growing demand led to the development of a thriving trade in nests and a new type of agriculture – ant farming.

For an insect that bites, the yellow citrus ant is remarkably popular. Even by ant standards, *Oecophylla smaragdina* is a fearsome predator. It's big, runs fast and has a powerful nip – painful to humans but lethal to many of the insects that plague the orange groves of Guangdong and Guangxi in southern China. And for at least 17 centuries, Chinese orange growers have harnessed these six-legged killing machines to keep their fruit groves healthy and productive.



Citrus fruits evolved in the Far East and the Chinese discovered the delights of their flesh early on. As the ancestral home of oranges, lemons and pomelos, China also has the greatest diversity of citrus pests. And the trees that produce the sweetest fruits, the mandarins – or kan – attract a host of plant-eating insects, from black ants and sap-sucking mealy bugs to leaf-devouring caterpillars. With so many enemies, fruit growers clearly had to have some way of protecting their orchards.

The West did not discover the Chinese orange growers' secret weapon until the early 20th century. At the time, Florida was suffering an epidemic of citrus canker and in 1915 Walter Swingle, a plant physiologist working for the US Department of Agriculture, was sent to China in search of varieties of orange that were resistant to the disease. Swingle spent some time studying the citrus orchards around Guangzhou, and there he came across the story of the cultivated ant. These ants, he was told, were "grown" by the people of a small village nearby who sold them to the orange growers by the nestful.

The earliest report of citrus ants at work among the orange trees appeared in a book on tropical and subtropical botany written by Hsi Han in AD 304. "The people of Chiao-Chih sell ants in their markets in bags of rush matting. The nests are like silk. The bags are all attached to twigs and leaves which, with the ants inside the nests, are for sale. The ants are reddish-yellow in colour, bigger than ordinary ants. In the south, if the kan trees do not have this kind of ant, the fruits will all be damaged by many harmful insects, and not a single fruit will be perfect."

Initially, farmers relied on nests which they collected from the wild or bought in the market where trade in nests was brisk. "It is said that in the south orange trees which are free of ants will have wormy fruits. Therefore, people race to buy nests for their orange trees," wrote Liu Hsun in Strange Things Noted in the South in about 890.

The business quickly became more sophisticated. From the 10th century, country people began to trap ants in artificial nests baited with fat. "Fruit-growing families buy these ants from vendors who



make a business of collecting and selling such creatures,” wrote Chuang Chi-Yu in 1130. “They trap them by filling hogs’ or sheep’s bladders with fat and placing them with the cavities open next to the ants’ nests. They wait until the ants have migrated into the bladders and take them away. This is known as ‘rearing orange ants.’” Farmers attached the bladders to their trees, and in time the ants spread to other trees and built new nests.

By the 17th century, growers were building bamboo walkways between their trees to speed the colonisation of their orchards. The ants ran along these narrow bridges from one tree to another and established nests “by the hundreds of thousands”.

Did it work? The orange growers clearly thought so. One authority, Chhii Ta-Chun, writing in 1700, stressed how important it was to keep the fruit trees free of insect pests, especially caterpillars. “It is essential to eliminate them so that the trees are not injured. But hand labour is not nearly as efficient as ant power...”

Swingle was just as impressed. Yet despite his reports, many Western biologists were sceptical. In the West, the idea of using one insect to destroy another was new and highly controversial. The first breakthrough had come in 1888, when the infant orange industry in California had been saved from extinction by the Australian vedalia beetle. This beetle was the only thing that had made any inroads into the explosion of cottony cushion scale that was threatening to destroy the state’s citrus crops. But, as Swingle now knew, California’s “first” was nothing of the sort. The Chinese had been experts in biocontrol for many centuries.

The long tradition of ants in the Chinese orchards only began to waver in the 1950s and 1960s with the introduction of powerful organic insecticides. Although most fruit growers switched to chemicals, a few hung onto their ants. Those who abandoned ants in favour of chemicals quickly became disillusioned. As costs soared and pests began to develop resistance to the chemicals,



growers began to revive the old ant patrols in the late 1960s. They had good reason to have faith in their insect workforce.

Research in the early 1960s showed that as long as there were enough ants in the trees, they did an excellent job of dispatching some pests – mainly the larger insects – and had modest success against others. Trees with yellow ants produced almost 20 percent more healthy leaves than those without. More recent trials have shown that these trees yield just as big a crop as those protected by expensive chemical sprays.

One apparent drawback of using ants – and one of the main reasons for the early scepticism by Western scientists – was that citrus ants do nothing to control mealy bugs, waxy-coated scale insects which can do considerable damage to fruit trees. In fact, the ants protect mealy bugs in exchange for the sweet honey-dew they secrete. The orange growers always denied this was a problem but Western scientists thought they knew better.

Research in the 1980s suggests that the growers were right all along. Where X mealy bugs proliferate under the ants' protection, they are usually heavily parasitised and this limits the harm they can do.

Orange growers who rely on carnivorous ants rather than poisonous chemicals maintain a better balance of species in their orchards. While the ants deal with the bigger insect pests, other predatory species keep down the numbers of smaller pests such as scale insects and aphids. In the long run, ants do a lot less damage than chemicals – and they're certainly more effective than excommunication.

Questions 14-18



Instructions to follow

- Look at the following events (Questions 14-18) and the list of dates below.
- Match each event with the correct time A-G.
- Write the correct letter A-G in boxes 14-18 on your answer sheet.

14 The first description of citrus ants is traded in the marketplace.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

15 Swingle came to Asia for research.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

16 The first record of one insect is used to tackle other insects in the western world.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

17 Chinese fruit growers started to use pesticides in place of citrus ants.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

18 Some Chinese farmers returned to the traditional bio-method

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

List of Dates

- A 1888
- B AD 890
- C AD 304
- D 1950s
- E 1960s
- F 1915



G 1130

Questions 19-26**Instructions to follow**

- Do the following statements agree with the information given in Reading Passage 2?
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

- 19 China has more citrus pests than any other country in the world.
- 20 Swingle came to China to search for an insect to bring back to the US.
- 21 Many people were very impressed by Swingle's discovery.
- 22 Chinese farmers found that pesticides became increasingly expensive.
- 23 Some Chinese farmers abandoned the use of pesticide.
- 24 Trees with ants had more leaves fall than those without.
- 25 Fields using ants yield as large a crop as fields using chemical pesticides.
- 26 Citrus ants often cause considerable damage to the bio-environment of the orchards



Section 3

Instructions to follow

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

Sand Dunes

A. One of the main problems posed by sand dunes is their encroachment on human habitats. Sand dunes move by different means, all of them aided by the wind. Sand dunes threaten buildings and crops in Africa, the Middle East, and China. Preventing sand dunes from overwhelming cities and agricultural areas has become a priority for the United Nations Environment Program. On the other hand, dune habitats provide niches for highly specialized plants and animals, including numerous rare and endangered species.

B. Sand is usually composed of hard minerals such as quartz that cannot be broken down into silt or clay. Yellow, brown and reddish shades of sand indicate their presence of iron compounds. Red sand is composed of quartz coated by a layer of iron oxide. White sands are nearly pure gypsum. Sand with a high percentage of silicate can be used in glassmaking. Sandstone is created by sand, mixed with lime, chalk or some other material that acts as a binding agent, that is deposited in layers at the bottom of a sea or other area and pressed together into rock by the great pressure of sediments that are deposited on top of it over thousands or millions of years.

C. The most common dune form on Earth and on Mars is crescentic. Crescent-shaped mounds are generally wider than they are long. The slipfaces are on the concave sides of the dunes. These dunes form under winds that blow consistently from one direction, and they also are known as barchans or transverse dunes. Some types of crescentic dunes move more quickly over desert



surfaces than any other type of dune. A group of dunes moved more than 100 metres per year between 1954 and 1959 in China's Ningxia Province, and similar speeds have been recorded in the Western Desert of Egypt. The largest crescentic dunes on Earth, with mean crest-to-crest widths of more than 3 kilometres, are in China's Taklamakan Desert.

D. Radially symmetrical, star dunes are pyramidal sand mounds with slipfaces on three or more arms that radiate from the high center of the mound. They tend to accumulate in areas with multidirectional wind regimes. Star dunes grow upward rather than laterally. They dominate the Grand Erg Oriental of the Sahara. In other deserts, they occur around the margins of the sand seas, particularly near topographic barriers. In the southeast Badain Jaran Desert of China, the star dunes are up to 500 metres tall and may be the tallest dunes on Earth. Straight or slightly sinuous sand ridges typically much longer than they are wide are known as linear dunes. They may be more than 160 kilometres (99 mi) long. Some linear dunes merge to form Y-shaped compound dunes. Many forms in bidirectional wind regimes. The long axes of these dunes extend in the resultant direction of sand movement. Linear loess hills known as pahas are superficially similar.

E. Once sand begins to pile up, ripples and dunes can form. Wind continues to move sand up to the top of the pile until the pile is so steep that it collapses under its own weight. The collapsing sand comes to rest when it reaches just the right steepness to keep the dune stable. This angle, usually about 30-34°, is called the angle of repose. Every pile of loose particles has a unique angle of repose, depending upon the properties of the material it's made of, such as the grain size and roundness. Ripples grow into dunes with the increase of wind and sand input.

F. The repeating cycle of sand inching up the windward side to the dune crest, then slipping down the dune's slip face allows the dune to inch forward, migrating in the direction the wind blows. As you might guess, all of this climbing then slipping leaves its mark on the internal structure of the dune. The image on the right shows fossil sand dune structure preserved in the Merced Formation



at Fort Funston, Golden Gate National Recreation Area. The sloping lines or laminations you see are the preserved slip faces of a migrating sand dune. This structure is called cross-bedding and can be the result of either wind or water currents. The larger the cross-bedded structure, however, the more likely it is to be formed by wind, rather than water.

G. Sand dunes can “sing” at a level up to 115 decibels and generate sounds in different notes. The dunes at Sand Mountain in Nevada usually sing in a low C but can also sing in B and C sharp. The La Mar de Dunas in Chile hum in F while those at the Ghord Lahmar in Morocco howl in G sharp. The sounds are produced by avalanches of sand generated by blowing winds. For a while, it was thought that the avalanches caused the entire dune to resonate like a flute or violin but if that were true then different size dunes would produce different notes. In the mid 2000s, American, French and Moroccan scientists visiting sand dunes in Morocco, Chile, China and Oman published a paper in the Physical Review Letters that determined the sounds were produced by collisions between grains of sand that caused the motions of the grains to become synchronized, causing the outer layer of a dune to vibrate like the cone of a loudspeaker, producing sound. The tone of the sounds depended primarily on the size of the grains.

H. Scientists performed a computer simulation on patterns and dynamics of desert dunes in laboratory. Dune patterns observed in deserts were reproduced. From the initial random state, stars and linear dunes are produced, depending on the variability of the wind direction. The efficiency in sand transport is calculated through the course of development. Scientists found that the sand transport is the most efficient in the linear transverse dune. The efficiency in sand transport always increased through the evolution, and the way it increased was stepwise. They also found that the shadow zone, the region where the sand wastes the chance to move, shrinks through the course of evolution, which greatly helps them build a model to simulate a sand move.



Questions 27-34

Instructions to follow

- Choose the correct heading for paragraphs A-H from the list below.
- Write the correct number, i-x, in boxes 27-34 on your answer sheet.

List of Headings

- i. potential threat to buildings and crops despite the benefit.
- ii. the cycle of sand moving forward with wind
- iii. protection method in various countries.
- iv. scientists simulate sand move and build model in lab
- v. sand composition explanation
- vi. singing sand dunes
- vii. other types of sand dunes
- viii. the personal opinion on related issues.
- ix. reasons why sand dunes form
- x. the most common sand type

27 Paragraph A

28 Paragraph B

29 Paragraph C

30 Paragraph D

31 Paragraph E

32 Paragraph F

33 Paragraph G

**34** Paragraph H**Questions 35-36****Instructions to follow**

- Answer the questions 35-36 and choose correct letter A, B, C or D.

35 What is the main composition of white sand made of according to the passage?

- ☐ A Quartz
- ☐ B Gypsum
- ☐ C Lime
- ☐ D Iron

36 Which one is not mentioned as a sand type in this passage?

- ☐ A Linear
- ☐ B Crescentic
- ☐ C Overlap
- ☐ D Star

Questions 37-40**Instructions to follow**

- Complete the summary using the list of words, A-J below.
- Write the correct letter, A-J in boxes 37-40 on your answer sheet.



Crescentic is an ordinary³⁷..... on both Earth and Mars, apart from which, there are also other types of sand dunes. Different color of the sand reflects different components, some of them are rich in³⁸..... that can not be easily broken into clay. Sand dunes can “sing” at a level up to 115 decibels and generate sounds in different notes. Sand dunes can be able to³⁹..... at a certain level of sound intensity, and the different size of grains creates different⁴⁰..... of the sounds.

List of Words:

- A ☐ quartz
- B ☐ shape
- C ☐ pressure
- D ☐ tone
- E ☐ protection
- F ☐ category
- G ☐ minerals
- H ☐ sing
- I ☐ lab
- J ☐ direction



IELTS Reading Test 10

Section 1

Instructions to follow

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

Persistent Bullying Is One of The Worst Experiences A Child Can Face

How can it be prevented? Peter Smith, Professor of Psychology at the University of Sheffield, directed the Sheffield Anti-Bullying Intervention Project, funded by the Department for Education.

Here he reports on his findings.

- A. Bullying can take a variety of forms, from the verbal – being taunted or called hurtful names – to the physical – being kicked or shoved – as well as indirect forms, such as being excluded from social groups. A survey I conducted with Irene Whitney found that in British primary schools up to a quarter of pupils reported experience of bullying, which in about one in ten cases was persistent. There was less bullying in secondary schools, with about one in twenty-five suffering persistent bullying, but these cases may be particularly recalcitrant.
- B. Bullying is clearly unpleasant, and can make the child experiencing it feel unworthy and depressed. In extreme cases it can even lead to suicide, though this is thankfully rare. Victimised pupils are more likely to experience difficulties with interpersonal relationships as adults, while children who persistently bully are more likely to grow up to be physically violent, and convicted of anti-social offences.



- C. Until recently, not much was known about the topic, and little help was available to teachers to deal with bullying. Perhaps as a consequence, schools would often deny the problem. 'There is no bullying at this school' has been a common refrain, almost certainly untrue. Fortunately, more schools are now saying: There is not much bullying here, but when it occurs, we have a clear policy for dealing with it.'
- D. Three factors are involved in this change. First is an awareness of the severity of the problem. Second, a number of resources to help tackle bullying have become available in Britain. For example, the Scottish Council for Research in Education produced a package of materials, Action Against Bullying, circulated to all schools in England and Wales as well as in Scotland in summer 1992, with a second pack, Supporting Schools Against Bullying, produced the following year.




- In Ireland, Guidelines on Countering Bullying Behaviour in Post-Primary Schools was published in 1993. Third, there is evidence that these materials work, and that schools can achieve something. This comes from carefully conducted 'before and after' evaluations of interventions in schools, monitored by a research team. In Norway, after an intervention campaign was introduced nationally, an evaluation of forty-two schools suggested that, over a two-year period, bullying was halved. The Sheffield investigation, which involved sixteen primary schools and seven secondary schools, found that most schools succeeded in reducing bullying.
- E. Evidence suggests that a key step is to develop a policy on bullying, saying clearly what is meant by bullying, and giving explicit guidelines on what will be done if it occurs, what records will be kept, who will be informed, what sanctions will be employed. The policy should be developed through consultation, over a period of time – not just imposed from the head teacher's office! Pupils, parents and staff should feel they have been involved in the policy, which needs to be disseminated and implemented effectively.



Other actions can be taken to back up the policy. There are ways of dealing with the topic through the curriculum, using video, drama and literature. These are useful for raising awareness, and can best be tied into early phases of development, while the school is starting to discuss the issue of bullying. They are also useful in renewing the policy for new pupils, or revising it in the light of experience. But curriculum work alone may only have short-term effects; it should be an addition to policy work, not a substitute.

There are also ways of working with individual pupils, or in small groups. Assertiveness training for pupils who are liable to be victims is worthwhile, and certain approaches to group bullying such as 'no blame', can be useful in changing the behaviour of bullying pupils without confronting them directly, although other sanctions may be needed for those who continue with persistent bullying.



Work in the playground is important, too. One helpful step is to train lunchtime supervisors to distinguish bullying from playful fighting, and help them break up conflicts. Another possibility is to improve the playground environment, so that pupils are less likely to be led into bullying from boredom or frustration.

- F. With these developments, schools can expect that at least the most serious kinds of bullying can largely be prevented. The more effort put in and the wider the whole school involvement, the more substantial the results are likely to be. The reduction in bullying – and the consequent improvement in pupil happiness – is surely a worthwhile objective.



Questions 1-4

Instructions to follow

- Reading Passage 1 has six sections, A-F. Choose the correct heading for sections A-D from the list of headings below.
- Write the correct number, i-vii, in boxes 1-4 on your answer sheet.

List of Headings

- i. The role of video violence
- ii. The failure of government policy
- iii. Reasons for the increased rate of bullying
- iv. Research into how common bullying is in British schools
- v. The reaction from schools to enquiries about bullying
- vi. The effect of bullying on the children involved
- vii. Developments that have led to a new approach by schools

1 Section A

2 Section B

3 Section C

4 Section D



Questions 5-8

Instructions to follow

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

- 5 A recent survey found that in British secondary schools
- ☐ A there was more bullying than had previously been the case.
 - ☐ B there was less bullying than in primary schools.
 - ☐ C cases of persistent bullying were very common.
 - ☐ D indirect forms of bullying were particularly difficult to deal with.
- 6 Children who are bullied
- ☐ A are twice as likely to commit suicide as the average person.
 - ☐ B find it more difficult to relate to adults.
 - ☐ C are less likely to be violent in later life.
 - ☐ D may have difficulty forming relationships in later life.
- 7 The writer thinks that the declaration 'There is no bullying at this school'
- ☐ A is no longer true in many schools.
 - ☐ B was not in fact made by many schools.
 - ☐ C reflected the school's lack of concern.
 - ☐ D reflected a lack of knowledge and resources.



- 8 What were the findings of research carried out in Norway?
- A ☐ Bullying declined by 50% after an anti-bullying campaign.
 - B ☐ Twenty-one schools reduced bullying as a result of an anti-bullying campaign.
 - C ☐ Two years is the optimum length for an anti-bullying campaign.
 - D ☐ Bullying is a less serious problem in Norway than in the UK.

Questions 9-13

Instructions to follow

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

What steps should schools take to reduce bullying?

The most important step is for the school authorities to produce a 9 which makes the school's attitude towards bullying quite clear.

It should include detailed 10 as to how the school and its staff will react if bullying occurs.

In addition, action can be taken through the 11

This is particularly useful in the early part of the process, as a way of raising awareness and encouraging discussion.

On its own, however, it is insufficient to bring about a permanent solution.

Effective work can also be done with individual pupils and small groups.

For example, potential 12 of bullying can be trained to be more self-confident.

Or again, in dealing with group bullying, a 'no blame' approach, which avoids confronting the offender too directly, is often effective.



Playground supervision will be more effective if members of staff are trained to recognise the difference between bullying and mere **13**..... .

Questions 14

Instructions to follow

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

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

- ☐ A Bullying: what parents can do
- ☐ B Bullying: are the media to blame?
- ☐ C Bullying: the link with academic failure
- ☐ D Bullying: from crisis management to prevention



Section 2

Instructions to follow

- You should spend 20 minutes on Questions 15-27 which are based on Reading Passage 2.

The Left or Right Handed

- A. The probability that two right-handed people would have a left-handed child is only about 9.5 percent. The chance rises to 19.5 percent if one parent is a lefty and 26 percent if both parents are left-handed: The preference, however, could also stem from an infant's imitation of his parents. To test genetic influence, starting in the 1970s British biologist Marian Annett of the University of Leicester hypothesized that no single gene determines handedness. Rather, during fetal development, a certain molecular factor helps to strengthen the brain's left hemisphere, which increases the probability that the right hand will be dominant because the left side of the brain controls the right side of the body, and vice versa. Among the minority of people who lack this factor, handedness develops entirely by chance.



Research conducted on twins complicates the theory, however. One in five sets of identical twins involves one right-handed and one left-handed person, despite the fact that their genetic material is the same. Genes, therefore, are not solely responsible for handedness.

- B. The genetic theory is also undermined by results from Peter Hepper and his team at Queen's University in Belfast, Ireland. In 2004 the psychologists used ultrasound to show that by the 15th week of pregnancy, fetuses already have a preference as to which thumb




they suck. In most cases, the preference continued after birth. At 15 weeks, though, the brain does not yet have control over the body's limbs. Hepper speculates that fetuses tend to prefer whichever side of the body is developing quicker and that their movements, in turn, influence the brain's development. Whether this early preference is temporary or holds up throughout development and infancy is unknown. Genetic predetermination is also contradicted by the widespread observation that children do not settle on either their right or left hand until they are two or three years old.

C. But even if these correlations were true, they did not explain what actually causes left-handedness. Furthermore, specialization on either side of the body is common among animals. Cats will favor one paw over another when fishing toys out from under the couch. Horses stomp more frequently with one hoof than the other. Certain crabs motion predominantly with the left or right claw. In evolutionary terms, focusing power and dexterity in one limb is more efficient than having to train two, four or even eight limbs equally. Yet for most animals, the preference for one side or the other is seemingly random. The overwhelming dominance of the right hand is associated only with humans. That fact directs attention toward the brain's two hemispheres and perhaps toward language.

D. Interest in hemispheres dates back to at least 1836. That year, at a medical conference, French physician Marc Dax reported on an unusual commonality among his patients. During his many years as a country doctor, Dax had encountered more than 40 men and women for whom speech was difficult, the result of some kind of brain damage. What was unique was that every individual suffered damage to the left side of the brain. At the conference, Dax elaborated on his theory, stating that each half of the brain was responsible for certain functions and that the left hemisphere controlled speech. Other experts showed little interest in the Frenchman's ideas.



Over time, however, scientists found more and more evidence of people experiencing speech difficulties following an injury to the left brain. Patients with damage to the right hemisphere most often displayed disruptions in perception or concentration. Major advancements in understanding the brain's asymmetry were made in the 1960s as a result of so-called split-brain surgery, developed to help patients with epilepsy. During this operation, doctors severed the corpus callosum – the nerve bundle that connects the two hemispheres. The surgical cut also stopped almost all normal communication between the two hemispheres, which offered researchers the opportunity to investigate each side's activity.

- 
- E. In 1949 neurosurgeon Juhn Wada devised the first test to provide access to the brain's functional organization of language. By injecting an anesthetic into the right or left carotid artery, Wada temporarily paralyzed one side of a healthy brain, enabling him to more closely study the other side's capabilities. Based on this approach, Brenda Milner and the late Theodore Rasmussen of the Montreal Neurological Institute published a major study in 1975 that confirmed the theory that country doctor Dax had formulated nearly 140 years earlier: in 96 percent of right-handed people, language is processed much more intensely in the left hemisphere. The correlation is not as clear in lefties, however. For two-thirds of them, the left hemisphere is still the most active language processor. But for the remaining third, either the right side is dominant or both sides work equally, controlling different language functions.

That last statistic has slowed acceptance of the notion that the predominance of right-handedness is driven by left-hemisphere dominance in language processing. It is not at all clear why language control should somehow have dragged the control of body movement with it. Some experts think one reason the left hemisphere reigns over



language is that the organs of speech processing – the larynx and tongue – are positioned on the body's symmetry axis. Because these structures were centered, it may have been unclear, in evolutionary terms, which side of the brain should control them, and it seems unlikely that shared operation would result in smooth motor activity.

Language and handedness could have developed preferentially for very different reasons as well. For example, some researchers, including evolutionary psychologist Michael C. Corballis of the University of Auckland in New Zealand, think that the origin of human speech lies in gestures. Gestures predated words and helped language emerge. If the left hemisphere began to dominate speech, it would have dominated gestures, too, and because the left brain controls the right side of the body, the right hand developed more strongly.



F. Perhaps we will know more soon. In the meantime, we can revel in what, if any, differences handedness brings to our human talents. Popular wisdom says right-handed, left-brained people excel at logical, analytical thinking. Left-handed, right-brained individuals are thought to possess more creative skills and maybe better at combining the functional features emergent on both sides of the brain. Yet some neuroscientists see such claims as pure speculation. Fewer scientists are ready to claim that left-handedness means greater creative potential. Yet lefties are prevalent among artists, composers and the generally acknowledged great political thinkers. Possibly if these individuals are among the lefties whose language abilities are evenly distributed between hemispheres, the intense interplay required could lead to unusual mental capabilities.

G. Or perhaps some lefties become highly creative because they must be more clever to get by in our right-handed world. This battle, which begins during the very early stages of childhood, may lay the groundwork for exceptional achievements.



Questions 15-19

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 15-19 on your answer sheet.
- **NB** You may use any letter more than once.

15 The phenomenon of using one side of their body for animals.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

16 Statistics on the rate of one-handedness born.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

17 The age when the preference for using one hand is fixed.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

18 great talents of occupations in the left-handed population.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

19 The earliest record of researching the hemisphere's function.

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐



Questions 20-23

Instructions to follow

- Look at the following researchers and the lists of findings below.
- Match each researcher with the correct findings

- A Brenda Milner
- B Marian Annett
- C Peter Hepper
- D Michale Corballis

20 Ancient language evolution is connected to body gesture and therefore influences handedness.

- A ☐ B ☐ C ☐ D ☐

21 A child's handedness is not determined by just biological factors.

- A ☐ B ☐ C ☐ D ☐

22 Language process is generally undergoing in the left hemisphere of the brain.

- A ☐ B ☐ C ☐ D ☐

23 The rate of development of one side of the body has an influence on hemisphere preference in the fetus.

- A ☐ B ☐ C ☐ D ☐



Questions 24-27

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 2?

Write

YES if the statement is true

NO if the statement is false

NOT GIVEN if the information is not given in the passage

- 24 The study of twins shows that genetic determination is not the only factor for left Handedness.
- 25 The number of men with left-handedness is more than that of women.
- 26 Marc Dax's report was widely recognized in his time.
- 27 Juhn Wada based his findings on his research of people with language problems.





Section 3

Instructions to follow

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

Deafhood

- A. At this point, you might be wondering: what does 'deafhood' mean? Is it a synonym for 'deafness'? Is it a slightly more politically correct term to express the very same concept you've grown accustomed to—a person who lacks the power of hearing, or a person whose hearing is impaired? What's wrong with terms like 'hard of hearing' or 'deafness'? Have they not represented the deaf community just fine for the past few centuries? Who came up with the term 'Deafhood' anyway, and why?
- B. The term 'Deafhood' was first coined in 1993 by Dr Paddy Ladd, a deaf scholar in the Deaf Studies Department at the University of Bristol in England. First explored through his doctoral dissertation in 1998, and later elaborated on in his 2003 book, *'Understanding Deaf Culture – In Search of Deafhood'*, the idea behind Deafhood is twofold: first, it seeks to collect everything that is already known about the life, culture, politics, etc. of Sign Language Peoples (SLPs); secondly, it attempts to remove the limitations imposed on SLPs through their colonization from hearing people.
- C. In order to understand what Deafhood represents, it's first important to understand what is meant by colonisation. To do that, we need to examine two terms: Oralism and Audism. Oralism is a philosophy that first emerged in the late 19th century, and which suggests that reduced use of sign language would be more beneficial to SLPs, as it would allow them to integrate better to the hearing world. In that respect, sign language is dismissively regarded



as a mere obstacle to listening skills and acquisition of speech-treated, in effect, in the same manner as the languages of other peoples who were oppressed and colonised, e.g., the Maori in New Zealand, or the Aborigines in Australia.

Audism, however, is an even more sinister ideology: first coined in 1975 by Dr Tom Humphries of the University of California in San Diego, it describes the belief that deaf people are somehow inferior to hearing people, and that deafhood – or, in this case, we should say ‘deafness’ – is a flaw, a terrible disability that needs to be eliminated. It is the effect of these two ideologies that Deafhood seeks to counter, by presenting SLPs in a positive light, not as patients who require treatment.

- D. But even if we understand the oppression that SLPs have suffered at the hands of hearing people since the late 1800s, and even if we acknowledge that ‘deafness’ is a medical term with negative connotations that need to be replaced, that doesn’t mean it’s easy to explain what the term Deafhood represents exactly. This is because Deafhood is, as Dr Donald Grushkin puts it, a ‘physical, emotional, mental, spiritual, cultural and linguistic’ journey that every deaf person is invited-but not obligated-to embark on.
- E. Deafhood is essentially a search for understanding: what does being ‘Deaf’ mean? How did deaf people in the past define themselves, and what did they believe to be their reasons for existing before Audism was conceived? Why are some people born deaf? Are they biologically defective, or are there more positive reasons for their existence? What do terms like ‘Deaf Art’ or ‘Deaf Culture’ actually mean? What is ‘the Deaf Way’ or doing things? True Deafhood is achieved when a deaf person feels comfortable with who they are and connected to the rest of the deaf community through use of their natural language, but the journey there might differ.
- F. Aside from all those questions, however, Deafhood also seeks to counter the effect of what



is known as 'neo-eugenics'. Neo-eugenics, as described by Patrick Boudreault at the 2005 California Association of the Deaf Conference, is a modern manifestation of what has traditionally been defined as 'eugenics', i.e., an attempt to eradicate any human characteristics which are perceived as negative.

Deaf people have previously been a target of eugenicists through the aforementioned ideologies of Audism and Oralism, but recent developments in science and society-such as cochlear implants or genetic engineering-mean that Deafhood is once again under threat, and needs to be protected. The only way to do this is by celebrating the community's history, language, and countless contributions to the world, and confronting those who want to see it gone.

- G. So, how do we go forward? We should start by decolonising SLPs-by embracing Deafhood for what it is, removing all the negative connotations that surround it and accepting that deaf people are neither broken nor incomplete. This is a task not just for hearing people, but for deaf people as well, who have for decades internalised society's unfavourable views of them.

We should also seek recognition of the deaf community's accomplishments, as well as official recognition of sign languages around the world by their respective governments. Effectively, what we should do is ask ourselves: how would the Deaf community be like, had it never been colonised by the mainstream world? And whatever it is it would be like, we should all together-hearing and Deaf alike-strive to achieve it.



Questions 28-34

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 28-33 on your answer sheet.

28 Examples of other groups treated the same way as deaf people

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

29 Why the word 'deafness' is no longer appropriate

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

30 The definition of the word 'deaf'

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

31 Why deaf people might sometimes think negatively of themselves

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

32 How one can attain deafhood

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

33 Where the word 'deafhood' came from

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

34 Why deafhood is currently imperiled



- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

Questions 35-37

Instructions to follow

- Choose the correct letter A, B, C, or D.
- Write your answers in boxes 35-37 on your answer sheet.

35 According to Dr Paddy Ladd, Deafhood

- A ☐ is a more appropriate term than 'hard of hearing'.
- B ☐ doesn't colonise SLPs as much as 'deafness' does.
- C ☐ strives to get rid of the effects of colonisation.
- D ☐ contributes positively to the life and culture of deaf people.

36 Oralism suggests that

- A ☐ SLPs have no use for sign language.
- B ☐ SLPs don't belong in the hearing world.
- C ☐ hearing people are superior to SLPs.
- D ☐ SLPs are unable to acquire speech.

37 Aborigines in Australia are similar to deaf people because

- A ☐ eugenicists also tried to eradicate them.
- B ☐ they were also considered inferior by their oppressors.
- C ☐ their languages were also disrespected.
- D ☐ their languages were also colonised.



Questions 38-40

Instructions to follow

- Use NO MORE THAN TWO WORDS for each answer.

- 38 What should deaf people use to communicate with each other, according to deafhood?
- 39 Who has used oralism and audism to attack the deaf community?
- 40 What does the deaf community strive to achieve for sign language worldwide?





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.

Timekeeper: Invention of Marine Chronometer

A Up to the middle of the 18th century, the navigators were still unable to exactly identify the position at sea, so they might face a great number of risks such as the shipwreck or running out of supplies before arriving at the destination. Knowing one's position on the earth requires two simple but essential coordinates, one of which is the longitude.

B The longitude is a term that can be used to measure the distance that one has covered from one's home to another place around the world without the limitations of naturally occurring baseline like the equator. To determine longitude, navigators had no choice but to measure the angle with the naval sextant between Moon centre and a specific star—lunar distance—along with the height of both heavenly bodies. Together with the nautical almanac, Greenwich Mean Time (GMT) was determined, which could be adopted to calculate longitude because one hour in GMT means 15-degree longitude. Unfortunately, this approach laid great reliance on the weather conditions, which brought great inconvenience to the crew members. Therefore, another method was proposed, that is, the time difference between the home time and the local time served for the measurement. Theoretically, knowing the longitude position was quite simple, even for the people in the middle of the sea with no land in sight. The key element for calculating the distance



travelled was to know, at the very moment, the accurate home time. But the greatest the problem is: how can a sailor know the home time at sea?

C The simple and again obvious answer is that one takes an accurate clock with him, which he sets to the home time before leaving. A comparison with the local time (easily identified by checking the position of the Sun) would indicate the time difference between the home time and the local time, and thus the distance from home was obtained. The truth was that nobody in the 18th century had ever managed to create a clock that could endure the violent shaking of a ship and the fluctuating temperature while still maintaining the accuracy of time for navigation.

D After 1714, as an attempt to find a solution to the problem, the British government offered a tremendous amount of £20,000, which were to be managed by the magnificently named 'Board of Longitude'. If timekeeper was the answer (and there could be other proposed solutions, since the money wasn't only offered for timekeeper), then the error of the required timekeeping for achieving this goal needed to be within 2.8 seconds a day, which was considered impossible for any clock or watch at sea, even when they were in their finest conditions.

E This award, worth about £2 million today, inspired the self-taught Yorkshire carpenter John Harrison to attempt a design for a practical marine clock. In the later stage of his early career, he worked alongside his younger brother James. The first big project of theirs was to build a turret clock for the stables at Brockelsby Park, which was revolutionary because it required no lubrication. Harrison designed a marine clock in 1730, and he travelled to London in seek of financial aid. He explained his ideas to Edmond Halley, the Astronomer Royal, who then introduced him to George Graham, Britain's first-class clockmaker. Graham provided him with financial aid for his early-stage work on sea clocks. It took Harrison five



years to build Harrison Number One or H1. Later, he sought the improvement from years to build Harrison Number One or H1. Later, he sought the improvement from alternate design and produced H4 with the giant clock appearance. Remarkable as it was, the Board of Longitude wouldn't grant him the prize for some time until it was adequately satisfied.

F Harrison had a principal contestant for the tempting prize at that time, an English mathematician called John Hadley, who developed sextant. The sextant is the tool that people adopt to measure angles, such as the one between the Sun and the horizon, for a calculation of the location of ships or planes. In addition, his invention is significant since it can help determine longitude.

G Most chronometer forerunners of that particular generation were English, but that doesn't mean every achievement was made by them. One wonderful figure in the history is the Lancastrian Thomas Earnshaw, who created the ultimate form of chronometer escapement—the spring detent escapement—and made the final decision on format and productions system for the marine chronometer, which turns it into a genuine modern commercial product, as well as a safe and pragmatic way of navigation at sea over the next century and half.

Questions 1-5

Instructions to follow

- Reading Passage 1 has seven paragraphs, A-G.
- Which paragraph contains the following information?
- Write the correct letter, A-G, in boxes 1-5 on your answer sheet.



NB You may use any letter more than once.

1 a description of Harrison's background

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

2 problems caused by poor ocean navigation

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

3 the person who gave financial support to Harrison

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

4 an analysis of the long-term importance of sea clock invention

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

5 the practical usage of longitude

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐

Questions 6-8

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1? In boxes 6-8 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



- 6 In theory, sailors can easily calculate their longitude position at sea.
- 7 To determine longitude, the measurement of the distance from the Moon to the given star is a must.
- 8 Greenwich Mean Time was set up by the English navigators.

Questions 9-14

Instructions to follow

- Complete the sentences below.
- Choose NO MORE THAN TWO WORDS AND/OR A NUMBER from the passage for each answer.
- Write your answers in boxes 9-14 on your answer sheet.

- 9 Sailors were able to use the position of the Sun to calculate
- 10 An invention that could win the competition would lose no more than every day.
- 11 John and James Harrison's clock worked accurately without
- 12 Harrison's main competitor's invention was known as
- 13 Hadley's instrument can use to make a calculation of location of ships or planes.
- 14 The modern version is Harrison's invention is called



Section 2

Instructions to follow

- You should spend 20 minutes on Questions 15-27 which are based on Reading Passage 2.

Ancient People in Sahara

On Oct. 13, 2000, Paul Sereno, a professor from the University of Chicago, guided a team of palaeontologists to climb out of three broken Land Rovers, contented their water bottles and walked across the toffee-coloured desert called Tenere Desert. Tenere, one of the most barren areas on the Earth, is located on the southern flank of Sahara. According to the turbaned nomads Tuareg who have ruled this infertile domain for a few centuries, this California-size ocean of sand and rock is a 'desert within a desert'. In the Tenere Desert, massive dunes might stretch a hundred miles, as far as the eyes can reach. In addition, 120-degree heat waves and inexorable winds can take almost all the water from a human body in less than a day.

Mike Hettwer, a photographer in the team, was attracted by the amazing scenes and walked to several dunes to take photos of the amazing landscape. When reaching the first slope of the dune, he was shocked by the fact that the dunes were scattered with many bones. He photographed these bones with his digital camera and went to the Land Rover in a hurry. 'I found some bones,' Hettwer said to other group members, 'to my great surprise, they do not belong to the dinosaurs. They are human bones.'

One day in the spring of 2005, Paul Sereno got in touch with Elena Garcea, a prestigious archaeologist at the University of Cassino in Italy, asking her to return to the site with him together. After spending 30 years in researching the history of Nile in Sudan and of the mountains in the



Libyan Desert, Garcea got well acquainted with the life of the ancient people in Sahara. But she did not know Sereno before this exploration, whose claim of having found so many skeletons in Tenere desert was unreliable to some archaeologists, among whom one person considered Sereno just as a 'moonlighting palaeontologist'. However, Garcea was so obsessive with his perspective as to accept his invitation willingly.

In the following three weeks, Sereno and Garcea (along with five excavators, five Tuareg guides, and five soldiers from Niger's army) sketched a detailed map of the destined site, which was dubbed Gobero after the Tuareg name for the area, a place the ancient Kiffian and Tuareg nomads used to roam. After that, they excavated eight tombs and found twenty pieces of artefacts for the above mentioned two civilisations. From these artefacts, it is evidently seen that Kiffian fishermen caught not only the small fish, but also some huge ones: the remains of Nile perch, a fierce fish weighing about 300 pounds, along with those of the alligators and hippos, were left in the vicinity of dunes.

Sereno went back with some essential bones and artefacts, and planned for the next trip to the Sahara area. Meanwhile, he pulled out the teeth of skeletons carefully and sent them to a researching laboratory for radiocarbon dating. The results indicated that while the smaller 'sleeping' bones might date back to 6,000 years ago (well within the Tenerian period), the bigger compactly tied artefacts were approximately 9,000 years old, just in the heyday of the Kiffian era. The scientists now can distinguish one culture from the other.

In the fall of 2006, for the purpose of exhuming another 80 burials, these people had another trip to Gobero, taking more crew members and six extra scientists specialising in different areas. Even at the site, Chris Stojanowski, bio-archaeologist in Arizona State University, found some clues by matching the pieces. Judged from the bones, the Kiffian could be a people of peace and hardworking. 'No injuries in heads or forearms indicate that they did not fight too much,' he said. 'And they had strong bodies.' He pointed at a long narrow femur and continued, 'From this muscle



attachment, we could infer the huge leg muscles, which means this individual lived a strenuous lifestyle and ate much protein. Both of these two inferences coincide with the lifestyle of the people living on fishing.' To create a striking contrast, he displayed a femur of a Tenerian male. This ridge was scarcely seen. This individual had a less laborious lifestyle, which you might expect of the herder.'

Stojanowski concluded that the Tenerian were herders, which was consistent with the other scholars' dominant view of the lifestyle in the Sahara area 6,000 years ago, when the dry climate favoured herding rather than hunting. But Sereno proposed some confusing points: if the Tenerian was herders, where were the herds? Despite thousands of animal bones excavated in Gobero, only three cow skeletons were found, and none of goats or sheep found, 'It is common for the herding people not to kill the cattle, particularly in a cemetery.' Elena Garcea remarked, 'Even the modern pastoralists such as Niger's Wodaabe are reluctant to slaughter the animals in their herd.' Sereno suggested, 'Perhaps the Tenerian in Gobero were a transitional group that had still relied greatly on hunting and fishing and not adopted herding completely.'

Questions 15-18

Instructions to follow

- Do the following statements agree with the information given in Reading Passage 1? In boxes 15-18 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

15 The pictures of rock engravings found in Green Sahara is similar to those in other places.

16 Tenere Desert was quite a fertile area in Sahara Desert.

17



17 Hettwer found human remains in the desert by chance.

18 Sereno and Garcea have cooperated in some archaeological activities before studying ancient Sahara people.

Questions 19-21

Instructions to follow

- Answer the questions below.
- Choose NO MORE THEN THREE WORDS AND/OR A NUMBER from the passage for each answer.
- Write your answers in boxes 19-21 on your answer sheet.

- 19 What did Sereno and Garcea produce in the initial weeks before digging work?
- 20 What did Sereno send to the research centre?
- 21 How old were the bigger tightly bundled burials having been identified and estimated to be?

Questions 22-27

Instructions to follow

- Complete the notes below.
- Choose ONE WORD ONLY from the passage for each answer.
- Write your answers in boxes 22-27 on your answer sheet.

A comparative study of two ancient cultures

The Kiffian

—They seemed to be peaceful and industrious since the researcher did not find 22



..... on their heads and forearms.

—Their lifestyle was 23.....

—Through the observation on the huge leg muscles, it could be inferred that their diet had plenty of 24.....

The Tenerian

—Stojanowski presumed that the Tenerian preferred herding to 25.....

—But only the bones of individual animals such as 26..... were found.

—Sereno supposed the Tenerian in Gobero lived in a 27..... group at that



Section 3

Instructions to follow

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

Quantitative Research in Education

Many education researchers used to work on the assumption that children experience different phases of development, and that they cannot execute the most advanced level of cognitive operation until they have reached the most advanced forms of cognitive process. For example, one researcher Piaget had a well-known experiment in which he asked the children to compare the amount of liquid in containers with different shapes. Those containers had the same capacity, but even when the young children were demonstrated that the same amount of fluid could be poured between the containers, many of them still believed one was larger than the other. Piaget concluded that the children were incapable of performing the logical task in figuring out that the two containers were the same size even though they had different shapes, because their cognitive development had not reached the necessary phase. Critics on his work, such as Donaldson, have questioned this interpretation. They point out the possibility that the children were just unwilling to play the experimenter's game, or that they did not quite understand the question asked by the experimenter. These criticisms surely do state the facts, but more importantly, it suggests that experiments are social situations where interpersonal interactions take place. The implication here is that Piaget's investigation and his attempts to replicate it are not solely about measuring the children's capabilities of logical thinking, but also the degree to which they could understand the directions for them, their willingness to comply with these requirements, how well the experimenters did in communicating the requirements and in motivating those children, etc.



The same kinds of criticisms have been targeted to psychological and educational tests. For instance, Mehan argues that the subjects might interpret the test questions in a way different from that meant by the experimenter. In a language development test, researchers show children a picture of a medieval fortress, complete with moat, drawbridge, parapets and three initial consonants in it: D, C, and G. The children are required to circle the correct initial consonant for 'castle'. The answer is C, but many kids choose D. When asked what the name of the building was, the children responded 'Disneyland'. They adopted the reasoning line expected by the experimenter but got to the wrong substantive answer. The score sheet with the wrong answers does not include in it a child's lack of reasoning capacity; it only records that the children gave a different answer rather than the one the tester expected.

Here we are constantly getting questions about how valid the measures are where the findings of the quantitative research are usually based. Some scholars such as Donaldson consider these as technical issues, which can be resolved through more rigorous experimentation. In contrast, others like Mehan reckon that the problems are not merely with particular experiments or tests, but they might legitimately jeopardise the validity of all researches of this type.

Meanwhile, there are also questions regarding the assumption in the logic of quantitative educational research that causes can be identified through physical and/or statistical manipulation of the variables. Critics argue that this does not take into consideration the nature of human social life by assuming it to be made up of static, mechanical causal relationships, while in reality, it includes complicated procedures of interpretation and negotiation, which do not come with determinate results. From this perspective, it is not clear that we can understand the pattern and mechanism behind people's behaviours simply in terms of the casual relationships, which are the focuses of quantitative research. It is implied that social life is much more contextually variable and complex.



Such criticisms of quantitative educational research have also inspired more and more educational researchers to adopt qualitative methodologies during the last three or four decades. These researchers have steered away from measuring and manipulating variables experimentally or statistically. There are many forms of qualitative research, which is loosely illustrated by terms like 'ethnography', 'case study', 'participant observation', 'life history', 'unstructured interviewing', 'discourse analysis' and so on. Generally speaking, though, it has characteristics as follows:

Qualitative researches have an intensive focus on exploring the nature of certain phenomena in the field of education, instead of setting out to test hypotheses about them. It also inclines to deal with 'unstructured data', which refers to the kind of data that have not been coded during the collection process regarding a closed set of analytical categories. As a result, when engaging in observation, qualitative researchers use audio or video devices to record what happens or write in detail open-ended field-notes, instead of coding behaviour concerning a pre-determined set of categories, which is what quantitative researchers typically would do when conducting 'systematic observation'. Similarly, in an interview, interviewers will ask open-ended questions instead of ones that require specific predefined answers of the kind typical, like in a postal questionnaire. Actually, qualitative interviews are often designed to resemble casual conversations.

The primary forms of data analysis include verbal description and explanations and involve explicit interpretations of both the meanings and functions of human behaviours. At most, quantification and statistical analysis only play a subordinate role. The sociology of education and evaluation studies were the two areas of educational research where criticism of quantitative research and the development of qualitative methodologies initially emerged in the most intense way. A series of studies conducted by Lacey, Hargreaves and Lambert in a boys' grammar school, a boys' secondary modern school, and a girls' grammar school in Britain in the 1960s marked the beginning of the trend towards qualitative research in the sociology of education. Researchers employed an ethnographic or participant observation approach, although they did also collect some quantitative data, for instance on friendship patterns among the students. These researchers observed lessons,



interviewed both the teachers and the students, and made the most of school records. They studied the schools for a considerable amount of time and spent plenty of months gathering data and tracking changes over all these years.

Questions 28-32

Instructions to follow

- Look at the following statements or descriptions and the list of people below.
- Match each statement or description with the correct person or people A, B, C or D.
- Write the correct letter, A, B, C or D, in boxes 28-32 on your answer sheet.

Lists of People

- A Piaget
- B Mehan
- C Donaldson
- D Lacey, Hargreaves and Lambert

28 A wrong answer indicates more of a child's different perspective than incompetence in reasoning.

- A ☐ B ☐ C ☐ D ☐

29 Logical reasoning involving in the experiment is beyond children's cognitive development.

- A ☐ B ☐ C ☐ D ☐

30 Children's reluctance to comply with the game rules or miscommunication may be another explanation.

- A ☐ B ☐ C ☐ D ☐



31 There is an indication of a scientific observation approach in research.

- A ☐ B ☐ C ☐ D ☐

32 There is a detail of flaw in experiments on children's language development.

- A ☐ B ☐ C ☐ D ☐

Questions 33-36

Instructions to follow

- Complete the sentence below.
- Choose NO MORE THAN TWO WORDS from the passage for each answer.
- Write your answers in boxes 33-36 on your answer sheet.

33 In Piaget's experiment, he asked the children to distinguish the amount of in different containers.

34 Subjects with the wrong answer more inclined to answer '.....' instead of their wrong answer D in Mehan's question.

35 Some people criticised the result of Piaget experiment, but Donaldson thought the flaw could be rectified by

36 Most qualitative researches conducted by Lacey, Hargreaves and Lambert were done in a

Questions 37-39

Instructions to follow

- Choose THREE letters, A-F.
- Write the correct letters in boxes 37-39 on your answer sheet.



- The list below includes characteristics of 'qualitative research'.
- Write THREE are mentioned by the writer of the passage?

- A Coding behavior in terms of predefined set of categories
- B Designing an interview as an easy conversation
- C Working with well-organised data in a closed set of analytical categories
- D Full of details instead of loads of data in questionnaires
- E Asking to give open-ended answers in questionnaires
- F Recording the researching situation and applying note-taking

37

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

38

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

39

A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

Questions 40

Instructions to follow

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



40 What is the main idea of the passage?

- A ☐ to prove that quantitative research is most applicable to children's education
- B ☐ to illustrate the society lacks of deep comprehension of educational approach
- C ☐ to explain the ideas of quantitative research and the characteristics of the related criticisms
- D ☐ to imply qualitative research is a flawless method compared with quantitative one





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.

Clipper Race

The nineteenth century was a period of great technological development in Britain, and for shipping the major changes were from wind to steam power, and from wood to iron and steel.

The fastest commercial sailing vessels of all time were clippers, three-masted ships built to transport goods around the world, although some also took passengers. From the 1840s until 1869, when the Suez Canal opened and steam propulsion was replacing sail, clippers dominated world trade. Although many were built, only one has survived more or less intact: Cutty Sark, now on display in Greenwich, southeast London.

Cutty Sark's unusual name comes from the poem Tam O' Shanter by the Scottish poet Robert Burns. Tam, a farmer, is chased by a witch called Nannie, who is wearing a 'cutty sar' - an old Scottish name for a short nightdress. The witch is depicted in Cutty Sark's figurehead - the carving of a woman typically at the front of old sailing ships. In legend, and in Burns's poem, witches cannot cross water, so this was a rather strange choice of name for a ship.

Cutty Sark was built in Dumbarton, Scotland, in 1869, for a shipping company owned by John Willis. To carry out construction, Willis chose a new shipbuilding firm, Scott & Linton, and



ensured that the contrast with them put him in a very strong position. In the end, the firm was forced out of business, and the ship was finished by a competitor.

Willis's company was active in the tea trade between China and Britain, where speed could bring shipowners both profits and prestige, so Cutty Sark was designed to make the journey more quickly than any other ship. On her maiden voyage, in 1870, she set sail from London, carrying large amounts of goods to China. She returned laden with tea, making the journey back to London in four months. However, Cutty Sark never lived up to the high expectations of her owner, as a result of bad winds and various misfortunes. On one occasion, in 1872, the ship and a rival clipper, Thermopylae, left port in China on the same day. Crossing the Indian Ocean, Cutty Sark gained a lead of over 400 miles, but then her rudder was severely damaged in stormy seas, making her impossible to steer. The ship's crew had the daunting task of repairing the rudder at sea, and only succeeded at the second attempt. Cutty Sark reached London a week after Thermopylae.

Steam ships posed a growing threat to clippers, as their speed and cargo capacity increased. In addition, the opening of the Suez Canal in 1869, the same year that Cutty Sark was launched, had a serious impact. While steam ships could make use of the quick, direct route between the Mediterranean and the Red Sea, the canal was of no use to sailing ships, which needed the much stronger winds of the oceans, and so had to sail a far greater distance. Steam ships reduced the journey time between Britain and China by approximately two months.

By 1878, tea traders weren't interested in Cutty Sark, and instead, she took on the much less prestigious work of carrying any cargo between any two ports in the world. In 1880, violence aboard the ship led ultimately to the replacement of the captain with an incompetent drunkard who stole the crew's wages. He was suspended from service, and a new captain appointed. This marked a turnaround and the beginning of the most successful period in Cutty Sark's working



life, transporting wool from Australia to Britain. One such journey took just under 12 weeks, beating every other ship sailing that year by around a month.

The ship's next captain, Richard Woodget, was an excellent navigator, who got the best out of both his ship and his crew. As a sailing ship, Cutty Sark depended on the strong trade winds of the southern hemisphere, and Woodget took her further south than any previous captain, bringing her dangerously close to icebergs off the southern tip of South America. His gamble paid off, though, and the ship was the fastest vessel in the wool trade for ten years.

As competition from steam ships increased in the 1890s, and Cutty Sark approached the end of her life expectancy, she became less profitable. She was sold to a Portuguese firm, which renamed her Ferreira. For the next 25 years, she again carried miscellaneous cargoes around the world.

Badly damaged in a gale in 1922, she was put into Falmouth harbor in southwest England, for repairs. Wilfred Dowman, a retired sea captain who owned a training vessel, recognised her and tried to buy her, but without success. She returned to Portugal and was sold to another Portuguese company. Dowman was determined, however, and offered a high price: this was accepted, and the ship returned to Falmouth the following year and had her original name restored.

Dowman used Cutty Sark as a training ship, and she continued in this role after his death. When she was no longer required, in 1954, she was transferred to dry dock at Greenwich to go on public display. The ship suffered from fire in 2007, and again, less seriously, in 2014, but now Cutty Sark attracts a quarter of a million visitors a year.

Questions 1-8



Instructions to follow

- Do the following statements agree with the information given 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

- 1 Clippers were originally intended to be used as passenger ships.
- 2 Cutty Sark was given the name of a character in a poem.
- 3 The contract between John Willis and Scott & Linton favoured Willis.
- 4 John Willis wanted Cutty Sark to be the fastest tea clipper travelling between the UK and China.
- 5 Despite storm damage, Cutty Sark beat Thermopylae back to London.
- 6 The opening of the Suez Canal meant that steam ships could travel between Britain and China faster than clippers.
- 7 Steam ships sometimes used the ocean route to travel between London and China.
- 8 Captain Woodget put Cutty Sark at risk of hitting an iceberg.

Questions 9-13

Instructions to follow

- Complete the sentences below.
- Write ONE WORD ONLY for each answer.



- 9 After 1880, Cutty Sark carried as its main cargo during its most successful time.
- 10 As a captain and, Woodget was very skilled.
- 11 Ferreira went to Falmouth to repair damage that a had caused.
- 12 Between 1923 and 1954, Cutty Sark was used for
- 13 Cutty Sark has twice been damaged by in the 21st century.





Section 2

Instructions to follow

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

New Directions – Map Making

A “A map may lie, but it never jokes” wrote poet Howard McCordin. When it comes to getting to our destinations on time, there are few things more important than an uncluttered and accurate map. By definition, maps show the features of the earth graphically, to scale, on a two-dimensional surface. They may be thematic – showing vegetation, wildlife, geology; navigational — showing hydrographic, aeronautical or automotive routes; topographic ~ showing the natural and man-made features of the land or any other of a number of variations. Their creation is a work of art and science involving a merger between creativity and precision.

B One of the biggest influences upon map creation or cartography was World War II. In the war zone, maps of targets and terrain played a huge part and so topographers and members of the air force alike were engaged in the production of them. The need to accurately measure distances using air photos gave birth to the process of photogrammetry. Great cartographic and mathematical skill was required in a process that was initially limited by a lack of photographic coverage. Planes flying at a constant altitude flew in grid patterns with cameras mounted on them, facing straight down. When the weather was good, this process provided photos in the perpendicular axis – the preferred optical axis for mapping. In order to include both sides of the horizon, some cameras were specially designed to take three pictures at once - one vertical and two side-looking obliques. It was a difficult task to keep the plane running smoothly but the latest



refinements of map-making techniques were put to immediate use.

C Using a novel combination of optics and the overlapping of air photos to create three-dimensional pictures of terrain, the stereoscope was the next refinement in map making which was of limited value. Shortly thereafter, the photogrammetric stereo plotter improved upon the technology used by the stereoscope allowing cartographers to precisely measure the elevation of features in air photos and then transfer them to paper. After World War II had ended, this new technology led to an increased interest in cartography. Mappers began to use newly invented devices such as tellurometers, air profile recorders, magnetometers and scintillation counters. From these precision instruments came maps packed with information.

D In 1957, the Soviet satellite Sputnik 1 joined the moon in orbit around the earth. Although it only operated for 21 days, it began the 'space race' and shortly after a number of American and other Russian rockets were put into orbit progressing cartography into an even more sophisticated realm. Only a few years later in 1959 the first space photograph of earth was received. Pegasus 1, launched by the United States in 1966, was the first satellite with an instrument package on board specifically designed for surveying the earth. Two years later, the American Satnav system was launched utilising six carefully positioned Transit satellites which fed back information for mapping based upon the Doppler effect. The Landsat 1 satellite launched in 1972 was the first satellite to collect data specifically on the earth's surface and natural resources. More than 20 other equally spaced satellites now orbit the earth every 12 hours at an altitude of 20,000 kilometres. Navstar, the U.S. military's global-positioning system can determine geodesic positioning accurate within millimetres anywhere on earth. What took months to plot and record in the past can now be easily done in an hour.

E In addition to all the advances in aerial satellite technology, some very advanced computer hardware has been designed to aide cartographers in map production. Storing trillions of bits of



information and working with a Geographic Information System (GIS), the system uses geographic position as a common thread. Although it became popular in the 1990s, GISs were developed in the early 1960s. Programmed with topographic information - lakes, roads, rivers and place names - taken from existing sheets and updated from new surveys, a GIS was the next gigantic leap forward for cartographers. Maps, air photos, municipal plans and a host of other things can be scanned and entered and later on, updated and revised in an infinite number of ways on a computer terminal to create a virtually custom-made map every time. The distinction between map producer and map user becomes blurred with a GIS. A map of an urban neighbourhood may be brought up on the screen and by zooming in or out, streets, buildings, fields, lakes, street lamps, bus stops, even sewers can be displayed. But it goes even further: an associated database enables the operator to ascertain the number of people who live in the household, even property values can be listed. There is basically an unlimited amount of information which can be superimposed on a map using this system.

F A brief history of cartography shows that map types have changed to reflect the needs of the time. Thus, early maps depicted concrete, tangible features such as coastlines, rivers, mountains, roads and towns. Later, the focus moved to the spatial distribution of environmental phenomena — vegetation, soils, geology, and climate. Societal issues such as population and disease have also been closely examined. Most recently, attention has shifted to short-lived phenomena such as tornados, air pollution and floods, and to visualization of the results of conceptual modelling of environmental phenomena such as groundwater contamination. The trend has been one of shifting from simply mapping obvious features to discovering relationships and implications between different levels and layers of geographic information. It is clear today that cartography is closely associated with the broader field of scientific visualization. This technique takes the map-reader beyond the printed page and shows them terrain as if they were flying in a helicopter.



Questions 14-19

Instructions to follow

- The Reading Passage 2 has six paragraphs A-F.
- Choose the correct heading for each paragraph from the list of headings below.
- Write the correct number, i-x, in boxes 14-19 on your answer sheet.

List of Headings

- i transferring air photos to paper maps
- ii computers make map production easy
- iii maps for seeing into the future
- iv the role of weather in map-making photography
- v interest grows in map-making
- vi map-making responsible for space programs
- vii new process enables calculation of distance
- viii the future of cartography rests with helicopters
- ix the impact of satellites on map-making
- x defining map making

14 Paragraph A

15 Paragraph B

16 Paragraph C



17 Paragraph D

18 Paragraph E

19 Paragraph F

Questions 20-23

Instructions to follow

- Write the appropriate letters A, B, C or D in boxes 20-23 on your answer sheet.

Classify the following as first occurring

A between 1955 and 1960

B between 1960 and 1965

C between 1965 and 1970

D after 1970

20 The first images of the earth are taken in space.

A ☐ B ☐ C ☐ D ☐

21 Parts of the earth are mapped through use of radio waves.

A ☐ B ☐ C ☐ D ☐

22 A satellite is launched in search of forests, lakes and rivers.

A ☐ B ☐ C ☐ D ☐



23 Work began on what would be the most advanced map-making system in the future.

- A ☐ B ☐ C ☐ D ☐

Questions 24-26

Instructions to follow

- The list below gives possible factors that contributed to improvements in cartography.
- Write **THREE** of these factors are mentioned in the text?

- A magnetometers
- B Sputnik |
- C World War II
- D stereo plotters
- E aeroplanes and helicopters
- F stereoscopes

24

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

25

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐

26

- A ☐ B ☐ C ☐ D ☐ E ☐ F ☐



Section 3

Instructions to follow

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

How Children Learn

The way in which children learn is an ever-growing area of study. It is obvious that children differ from adult learners in many ways, but what is interesting is that there are also quite a number of surprising commonalities across all learners of all ages. A study of young children fulfils two purposes: it helps to highlight the strengths and weaknesses of the learners who populate a nation's schools, and it offers a window into the development of learning that cannot be seen if one considers only well-established learning patterns and expertise. When an observer studies the development of children over time, a dynamic picture of learning unfolds. An understanding of infant thinking, mental processes or cognition and how young children from 2 to 6 years old add information to their knowledge 'database' helps child psychologists to better equip students for their transition into formal school settings.

For much of the 20th century, most psychologists accepted the traditional thesis that a newborn's mind is a tabula rasa or blank slate upon which the record of experience is gradually impressed. It was further thought that verbal communication was a prerequisite for abstract thought and so, in its absence, a baby could not have comprehension. Since babies are born with a limited range of behaviours and spend most of their early months asleep, they certainly appear passive and unknowing. Therefore, it was commonly thought that infants lack the ability to form complex ideas. Until recently, there was no obvious way for them to demonstrate anything to the contrary to researchers.



In time however, challenges to this view arose. It became clear that with carefully designed scientific procedures, psychologists could find ways to pose rather complex questions about how much infants and young children know and what they are capable of doing. Psychologists began to employ new methodologies and began to gather a substantial amount of data about the remarkable abilities that young children possess. Their research stood in great contrast to the older emphases which focused almost entirely on what children lacked. The mind of young children came to life through this research, it became clear that very young children are both competent and active when it comes to their conceptual development.

A major move away from the earlier tabula rasa view of the infant mind was taken by the Swiss psychologist Jean Piaget. Beginning in the 1920s, Piaget argued that the young human mind could best be described in terms of complex cognitive or 'thinking' structures. From close observations of infants and careful questioning of children, he concluded that the development of the mind proceeds through certain observed that infants actually seek stimulation from their surroundings thus promoting their intellectual development. He showed that their initial representations of such things as space and time as well as awareness of objects and self are constructed only gradually during the first 2 years. He concluded that understanding in young infants is built up through the gradual coordination of sight, sound and touch. After Piaget, perceptual learning theorists studied how newborns begin to integrate sight and sound and explore their surroundings. They saw that learning in infants proceeded rapidly when they were given the opportunity to explore the objects and events they encountered. Theories were developed which attempted to describe how the brain processes information. It was around this time that the metaphor of the mind as computer came into wide usage.

In order to study what babies, know and can learn about readily, researchers needed to develop techniques of 'asking' infants what they know. Because infants are so limited physically and



verbally, experimenters interested in finding out how babies think had to find methods suitable to an infant's motor capabilities. New ways were developed for measuring what infants prefer to look at and detecting changes in events to which they are sensitive. Three such methods that were used were sucking, habituation, and visual expectation.

Although theories put forward during this time differed in many ways, they shared an emphasis on considering children as active learners, those who actually assemble and organise information. Therefore, primarily cognitive development involves the acquisition of organised knowledge such as, an early understanding of basic physics, some biological concepts and early number sense. In addition, cognitive development involves gradually learning strategies for solving problems, understanding and remembering.

The active role of learners was also emphasized by Vygotsky, who focused on the role of social support in learning. According to Vygotsky, all cognitive skills and patterns of thinking are not primarily determined by the skills people are born with; they are the products of the activities practiced in the social environment in which the individual grows up. From Vygotsky's research into the role of the social environment in the development of thinking came what he called a zone of proximal development. This zone which refers to tasks learners can do with the assistance of others, had a big impact upon developmental psychology. This line of work has drawn attention to the roles of parents, and teachers in challenging and extending children's efforts to understand. It has also contributed to an understanding of the relationship between formal and informal teaching as well as learning situations and cognition.

Questions 27-30

Instructions to follow

- Answer the questions below using **NO MORE THAN FIVE WORDS** for each answer.



- 27 What did early research into child capabilities focus on?
- 28 Who thought infants needed to communicate verbally in order to show advanced comprehension?
- 29 In what period of their growth do infants develop an awareness of time?
- 30 What TWO things is the infant mind compared to?

Questions 31-35

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

- 31 In many ways, children learn the same way adults learn.
- 32 20th century psychologists thought infants were unintelligent because they were usually asleep.
- 33 The focus of early research methods in child development have been similar to those conducted more recently.
- 34 Piaget showed that each new stage of learning builds upon the previous one.
- 35 Vygotsky's research has had a positive impact upon many primary school teachers.

Questions 36-40

Instructions to follow

- Complete the sentences below with words taken from Reading Passage 3.
- Choose **NO MORE THAN TWO WORDS**.



- 36 When it comes to learning new concepts, recent research has shown that children are both competent and
- 37 Not only are young children capable of assembling information they are also able to
- 38 One of the ways scientists measured infant preference was through
- 39 An indicator of cognitive development is that knowledge must be
- 40 Vygotsky believed that the key to learning lay in the individual's



Answer Keys

Reading Test 1

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	FALSE	14	H	28	vi
2	FALSE	15	J	29	vii
3	TRUE	16	I	30	i
4	NOT GIVEN	17	K	31	v
5	FALSE	18	G	32	viii
6	NOT GIVEN	19	NOT GIVEN	33	A
7	TRUE	20	TRUE	34	D
8	history of childhood	21	TRUE	35	C
9	miniature adults	22	FALSE	36	D
10	industrialization/industrialisation	23	FALSE	37	E
11	the Factory Act	24	in the 1960s	38	A
12	play and education	25	Tanzania	39	C



13	(a) classroom	26	close observatio n	40	F
		27	cultural		



Reading Test 2

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	C	14	NOT GIVEN	27	severe weather conditions
2	D	15	TRUE	28	aesthetic and practical
3	C	16	TRUE	29	(treasurable) souvenir
4	A	17	TRUE	30	E
5	E	18	FALSE	31	F
6	(a) clerk	19	NOT GIVEN	32	B
7	front lobby	20	clues	33	D
8	gallery	21	relationship	34	H
9	stockroom	22	message	35	C
10	customers	23	reschedule	36	(a/tiny) fuel tank
11	C	24	voicemail	37	openings
12	B	25	cellphone	38	Handle
13	C	26	meeting	39	propane and butane
			40	double flame	



Reading Test 3

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	D	15	ix	28	hammer
2	B	16	iv	29	body
3	F	17	iii	30	pad(s)
4	C	18	v	31	sinus cavities
5	A	19	i	32	trunks and feet
6	E	20	vi	33	infrasonic/low
7	D	21	ii	34	ecology
8	G	22	hot season/dry season	35	seismic signals
9	F	23	four months	36	auditory communication
10	C	24	water resources	37	mate
11	B	25	body weight	38	ground
12	D	26	dehydration	39	A
13	E	27	growth	40	C
14	A				



Reading Test 4

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	A	14	B	27	v
2	E	15	G	28	ii
3	G	16	A	29	vi
4	C	17	H	30	iii
5	ancient Rome	18	D	31	vii
6	Persia	19	C	32	iv
7	Mallorca	20	C	33	viii
8	Japan	21	TRUE	34	thunderstorms
9	Australia	22	FALSE	35	Condensation
10	Bahrain	23	FALSE	36	heat
11	TRUE	24	TRUE	37	eye
12	NOT GIVEN	25	NOT GIVEN	38	land
13	TRUE	26	FALSE	39	B
				40	C



Reading Test 5

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	iii	14	D	28	F
2	v	15	A	29	C
3	i	16	B	30	G
4	vi	17	F	31	B
5	A	18	C	32	F
6	B	19	E	33	E
7	B	20	petrol-fueled internal combustion	34	FALSE
8	C	21	identity and status	35	NOT GIVEN
9	C	22	15 minutes	36	FALSE
10	A	23	the 1973 oil crisis	37	TRUE
11	B	24	(a) gas-guzzler	38	C
12	A	25	fuel power	39	A
13	D	26	toxic gas	40	D
		27	B		



Reading Test 6

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	E	15	NOT GIVEN	28	B
2	A	16	FALSE	29	A
3	E	17	TRUE	30	C
4	G	18	FALSE	31	D
5	B	19	a detailed map	32	B
6	TRUE	20	the teeth/teeth of skeletons	33	liquid
7	FALSE	21	9000 years old	34	Disneyland
8	NOT GIVEN	22	injuries	35	rigorous experimentation
9	Local time	23	strenuous	36	grammar school
10	2.8 seconds	24	protein	37	B
11	Lubrication	25	hunting	38	D
12	(a/the) sextant	26	cows	39	E
13	Angles	27	transitional	40	C
14	Marine chronometer				



Reading Test 7

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	FALSE	14	x	28	20 th century psychologists
2	FALSE	15	vii	29	first 2 years
3	TRUE	16	v	30	blank state/computer
4	TRUE	17	ix	31	TRUE
5	FALSE	18	ii	32	TRUE
6	TRUE	19	iii	33	FALSE
7	NOT GIVEN	20	A	34	FALSE
8	TRUE	21	C	35	TRUE
9	wool	22	D	36	active
10	navigator	23	B	37	organize it
11	gale	24	A	38	sucking/habitation
12	training	25	C	39	organized
13	fire	26	D	40	social environment
		27	what children lacked		



Reading Test 8

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	F	14	B	28	TRUE
2	D	15	E	29	FALSE
3	C	16	F	30	TRUE
4	A	17	Essential element	31	NOT GIVEN
5	B	18	Applications	32	FALSE
6	B	19	Portable commodity	33	TRUE
7	B/D	20	Taxes	34	C
8	D/B	21	Spirits	35	A
9	C/D	22	TRUE	36	B
10	D/C	23	NOT GIVEN	37	D
11	Moods	24	FALSE	38	A
12	Milestone	25	FALSE	39	C
13	pessimistic	26	TRUE	40	E
		27	TRUE		



Reading Test 9

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	A	14	C	28	vi
2	C	15	G	29	iv
3	D	16	F	30	vii
4	A	17	E	31	ii
5	B	18	D	32	ix
6	beaks	19	Time span	33	i
7	passage	20	Defensive aggression	34	v
8	vomitted	21	95 percent	35	Brave New World
9	hardens	22	Genetic variation	36	Lois Lowry
10	True	23	Inordinate anxiety	37	honest
11	Not given	24	Faces and eyes	38	environmental catastrophe
12	Not given	25	High-status male	39	personal identity
13	False	26	Short gene	40	D
		27	S/L		



Reading Test 10

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	A	14	Not given	27	Dopamine
2	I	15	Not given	28	Pleasure
3	J	16	False	29	Caudate
4	E	17	True	30	Anticipatory phase
5	G	18	True	31	Food
6	Yes	19	False	32	B
7	Not given	20	100 English words	33	C
8	Not given	21	Chimpanzee	34	A
9	Not given	22	Avian cognition	35	B
10	B	23	Particularly	36	D
11	C	24	Color	37	F
12	D	25	Wrong pronunciation chosen	38	B
13	D	26	Teenager	39	E
				40	C



Reading Test 11

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	E	14	C	27	D
2	B	15	A	28	H
3	G	16	B	29	A
4	C	17	F	30	G
5	A	18	D	31	E
6	D	19	B	32	F
7	F	20	F	33	C
8	B	21	D	34	B
9	True	22	A	35	B
10	Not given	23	Yes	36	B
11	True	24	No	37	Not given
12	False	25	Not given	38	False
13	D	26	Not given	39	True
				40	Not given



Reading Test 12

Section 1		Section 2		Section 3	
Question	Answer	Question	Answer	Question	Answer
1	nest	14	iii	27	F
2	tortoises	15	x	28	B
3	oaks	16	viii	29	E
4	native Americans	17	ix	30	C
5	prescribed burns	18	vi	31	D
6	shrubs	19	I	32	E
7	soil	20	iv	33	C
8	ants	21	extra snacks	34	A
9	eggs	22	firewood	35	C
10	True	23	85%	36	Yes
11	False	24	50%	37	No
12	Not given	25	A	38	No
13	True	26	C	39	Not given
				40	Yes



If you score...

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