

# 9分达人<sup>®</sup>

新航道雅思  
研发中心 编著

## 雅思阅读真题 还原及解析

### 6

2016年—2018年6套雅思阅读真题

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Elephant Communication

2017.1.14  
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2017.11.4  
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2017.9.30  
History of Refrigeration

2018.4.21  
Company Innovation

2017.12.2  
Texting the Television

2017.1.21  
The Olympic Torch

2017.2.25  
The Concept of Childhood  
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2016.5.28  
The Evolutionary Mystery:  
Crocodile Survives

2017.3.18  
Can Hurricanes be  
Moderated or Diverted?

2017.11.25  
Timekeeper: Invention  
of Marine Chronometer

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## 前言

随着《剑桥雅思真题集》更新至今年的《剑桥雅思真题集 13》(以下简称《剑 13》),“9 分达人阅读”系列也迎来了《9 分达人雅思阅读真题还原及解析 6》(以下简称《9 分阅读 6》)的出版。或许大家都知道,无论是《剑 13》还是之前的剑桥系列真题在未来的考试中都不会再出现,考生如果想全面了解雅思考试的题型、难度和出题思路,认真学习这一系列书籍确实十分必要。但如果想一窥雅思考试的现行题库,或想在短期内迅速提高分数,“9 分达人阅读”系列作为一招便可致命的武林秘笈,无疑是最佳选择了!

从“9 分达人阅读”系列第一本到《9 分阅读 6》,我们一步步改进,不断完善,不仅为大家还原出了更多历年雅思考试阅读真题,总结了雅思阅读各类题型的解题技巧和方法,提供了全面的题目解读和分析,还为广大“烤鸭”们打造了一册又一册的押题宝典!在编写《9 分阅读 6》的过程中,作者投入了大量精力,从细心筛选雅思机经试题并加以还原,到精心编写真题解析、反复打磨,无不体现了作者的细心思量和良苦用心。在历经反复雕琢后,现终于成熟。我们相信,《9 分阅读 6》将继续为广大“烤鸭”们的“留学梦”奉献出自己的一份力量,帮助“烤鸭”们进行考前冲刺复习,扩充雅思阅读词汇储备,找到真实的考场体验,习得精炼的解题方法和技巧,延续“9 分达人阅读”系列的押题神话!

本书的编排特色主要有以下几个方面:

### 一、完整收录 2016 年—2018 年 6 套雅思阅读真题。

本书收录了 2016 年—2018 年 6 套完整的雅思阅读真题,“烤鸭”们可通过本书在考前调整好心态,进行适当的训练。本书所收录的 6 套阅读真题与“9 分达人阅读”系列前五本书所收录的真题均不重合。考生可根据自己的实际情况选做其中的题目,再对照解析部分查漏补缺,巩固已有的知识和经验,加深对雅思考试考点的印象和理解。

### 二、各套真题保留了各个 Passage 的近期考试日期。

延续了上一本的这一特色,作者将各篇文章近期考过的日期放置在文章开始之前,方便考生了解各部分题目的考试日期,了解考试的近期动态。

### 三、重现名师考场做题思路，手把手传授经验与技巧。

不同于之前该系列图书，本书中个别类型的题目并没有依据题号顺序进行解读，而是根据作者做题时的思路撰写而成解析，因此也变得更加实用。解析中汇聚了有效的解题思路、方法和技巧，有助于“烤鸭”们从技术层面把握好考试节奏。相信“烤鸭”们在掌握好这些方法、技巧后能更从容地应对雅思阅读考试。总之，“烤鸭”们须细心揣摩，读透吃透，如此才能将书本上的知识化为己用。

### 四、新增“文章结构”版块，调整“参考译文”和“词汇详解”的排版方式。

本书在沿用之前该系列图书四大版块（即“真题集”“题目详解”“参考译文”和“词汇详解”）的基础上，新增了“文章结构”这一版块，尽可能细致地帮助考生了解出题者的写作思路和文章前后的逻辑关系，更快地锁定答案出现的段落。值得一提的是，本书将“参考译文”和“词汇详解”版块调整为左右对照设计，更有助于考生对照学习和理解。

### 五、实时更新“9分达人阅读”系列图书中题记录。

“9分达人阅读”系列的“考场押题技能”是毋庸置疑的，相信诸多“烤鸭”已深有体会。在考场中，人品爆发的“烤鸭”或许会惊喜地发现手中的雅思阅读题竟然与本书中的题目一模一样！鉴于“烤鸭”们对“9分达人阅读”系列图书的命中率有着强烈的好奇心，我们将在9分达人微信公众号（公众号二维码见封面）中实时更新近期的中题记录，希望购买本书的考生充分地吃透这本书，甚至这系列书中的内容。只有将书中的内容化为脑海中的知识，才能帮助“烤鸭”们笔锋指处，所向披靡！

最后，我们衷心祝愿“烤鸭”们取得优异的成绩，实现自己的“留学梦”！

编者

2018年8月

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# TEST 1

## READING PASSAGE 1



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

### 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 adult. 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

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 certain kinds of work different from 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 By the aid of half-time schools, most children went to school in the mid-19th century.
- 6 In 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

*Answer the questions below.*

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

*Write your answers in boxes 8-13 on your answer sheet.*

- 8 What has not become a hot topic until the French historian Philippe Aries' book caused great attention?
- 9 What image did Aries believe children are supposed to be like 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 What activities were more and more regarded as preferable to almost all children in the 19th century?
- 13 In what place did children spend the majority of time during their day in school?

## READING PASSAGE 2

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

### 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 limits.

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

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 instead of feeling sickness.
- 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.

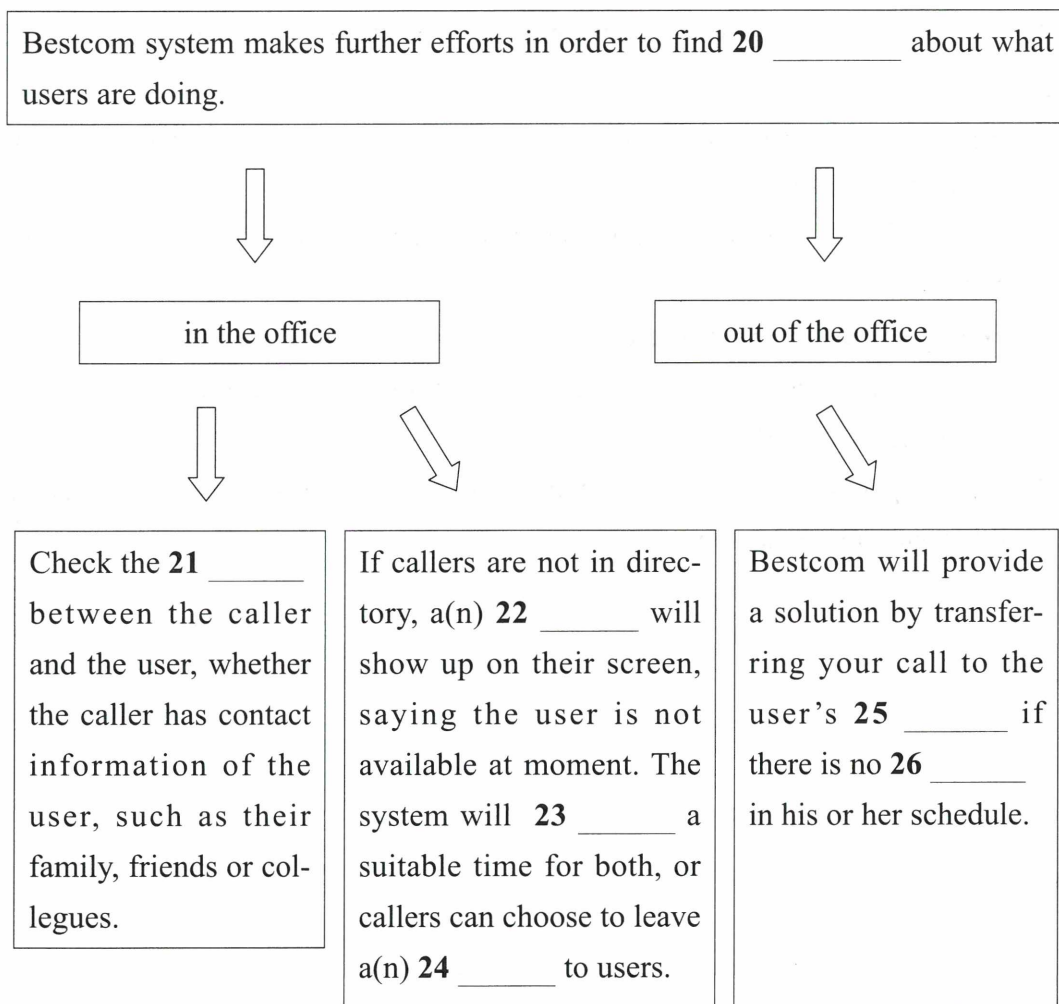
## Questions 20-26

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 Working Process



**READING PASSAGE 3**

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

**Questions 27-33**

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**

## 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 34-38

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 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, forming the familiar **37** \_\_\_\_\_ —the calm central hub around which a hurricane 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 and 40***

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

*Write the correct letter 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 achieve 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

# TEST 2

## READING PASSAGE 1



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

### ***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

Reading Passage 1 has six paragraphs, **A-F**.

Which paragraph contains the following information?

*Write the correct letter, **A-F**, in boxes 1-5 on your answer sheet.*

**NB** You may use any letter more than once.

- 1 layout of Clarence Saunders' store
- 2 a reference to a reduction by chain stores in labour costs
- 3 how Clarence Saunders' idea had been carried out
- 4 how people used to shop before Clarence Saunders' stores opened
- 5 a description of economic success brought by Clarence Saunders's stores

## Questions 6-10

*Complete the sentences below.*

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

*Write your answers in boxes 6-10 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 area 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

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.

## READING PASSAGE 2



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

### 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***

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
- 15** mention of a new system designed by two scientists who aim to solve the problem
- 16** reasons why previous research on ape culture is problematic
- 17** new classification of data observed or collected
- 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

## Questions 19-23

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

*In boxes 19-23 on your answer sheet, write*

- |                  |   |
|------------------|---|
| <b>TRUE</b>      | <i>if the statement agrees with the information</i> |
| <b>FALSE</b>     | <i>if the statement contradicts the information</i> |
| <b>NOT GIVEN</b> | <i>if there is no information on this</i>           |

- 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**

*Answer the questions below.*

*Choose **NO MORE THAN TWO 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** What term can be used to depict that Jane Goodall found the chimpanzees in different regions used the different tools in 1973?

## READING PASSAGE 3

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

### 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 experi-

ments 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

Look at the following statements or descriptions (Questions 28-32) 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.

**NB** You may use any letter more than once.

### List 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.
- 29** Logical reasoning involving in the experiment is beyond children's cognitive development.
- 30** Children's reluctance to comply with the game rules or miscommunication may be another explanation.
- 31** There is an indication of a scientific observation approach in research.
- 32** There is a detail of flaw in experiments on children's language development.

### **Questions 33-36**

*Complete the sentences 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

Choose **THREE** letters, **A-F**.

Write the correct letters in boxes 37-39 on your answer sheet.

The list below includes characteristics of the ‘qualitative research’.

Which **THREE** are mentioned by the writer of the passage?

- A Coding behaviour in terms of a 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

**Question 40**

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

*Write the correct letter in box 40 on your answer sheet.*

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

# TEST 3

## READING PASSAGE 1

 **date**  
2017 年 11 月 25 日

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

### **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 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 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

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
- 2 problems caused by poor ocean navigation
- 3 the person who gave financial support to Harrison
- 4 an analysis of the long-term importance of sea clock invention
- 5 the practical usage of longitude

### **Questions 6-8**

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

*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 of Harrison's invention is called \_\_\_\_\_.

**READING PASSAGE 2**

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

**Questions 15-21**

Reading Passage 2 has seven paragraphs, A-G.

*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

## 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 cold-blooded, 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 to prey catching. 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 crocodilian is 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 22-27

Complete the summary below.

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

Write your answers in boxes 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 aestivating crocodiles spent around **23** \_\_\_\_\_ of the year and had no access to **24** \_\_\_\_\_. The amount of water in the body declined proportionately with **25** \_\_\_\_\_; thus there is no sign of **26** \_\_\_\_\_ and other health-damaging impact on the crocodiles even after an aestivation period. This super capacity helps crocodiles endure the tough drought without slowing their speed of **27** \_\_\_\_\_.

## READING PASSAGE 3

You should spend about 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 Umagic 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 these 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 giants are concerned about the money they have to spend and the way to keep those geniuses who generated the ideas. 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 a 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 compete 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.
- I** Can all the creative destruction, cannibalisation and culture tweaking render the big firms more innovative? David Post, the founder of Umagic, cast doubt on this issue, 'The only successful intrapreneurs are ones who leave and become entrepreneurs.' He also recalls with glee the look of incomprehension when he tried to convince the idea lab of a big corporation such as IBM of his 'virtual experts' idea three years ago—though, he delightfully adds, 'of course, they could have been right. Innovation, unlike sex, parenting, or fitness, is one area where a computer cannot tell people what to do.'

## Questions 28-33

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
- 29** safeguarding expenses on innovative ideas
- 30** a certain counter-effect produced by integrating outside firms
- 31** an example of three famous American companies' innovation
- 32** an example of one company changing its focus
- 33** an example of a company resolving financial difficulties itself

## Questions 34-37

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

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

Write the correct letter in boxes 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.

# TEST 4

## READING PASSAGE 1

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

### Questions 1-4

Reading Passage 1 has six paragraphs, **A-F**.

Choose the correct heading for paragraphs **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	<b>ii</b>

#### 2 Paragraph C

#### 3 Paragraph D

#### 4 Paragraph E

## 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 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 adult-

hood. 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 human, 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 certain education which had 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 verity 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 served 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 5-8

Look at the following events (Questions 5-8) and the list of dates below.

Match each event with the correct date, **A**, **B** or **C**.

Write the correct letter, **A**, **B** or **C**, in boxes 5-8 on your answer sheet.

**NB** You may use any letter more than once.

### 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
- 6** the rise of the middle class
- 7** the emergence of a kindergarten
- 8** the spread of kindergartens around the U.S.

## Questions 9-13

Look at the following opinions or deeds (Questions 9-13) and the list of people below.

Match each opinion or deed with the correct person, **A**, **B**, **C** or **D**.

Write the correct letter, **A**, **B**, **C** or **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
- 10** observed a child's record
- 11** requested a study setting with emotional comfort firstly
- 12** proposed that corruption was not a characteristic in people's nature
- 13** was responsible for an increase in the number of a type of school

**READING PASSAGE 2**

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

- D** Livestock farming in semi-arid areas accelerates the erosion of soil and becomes one of the reasons for advancing desertification. In such areas where the vegetation is dominated by grasses, the breeding of livestock is a major economic activity. Grasses are necessary for anchoring barren topsoil in a dryland area. When a specific field is used to graze an excessive herd, it will experience a loss in vegetation coverage, and the soil will be trampled as well as be pulverised, leaving the topsoil exposed to destructive erosion elements such as winds and unexpected thunderstorms. For centuries, nomads have grazed their flocks and herds to any place where pasture can be found, and oases have offered chances for a more settled way of living. For some nomads, wherever they move to, the desert follows.
- E** Trees are of great importance when it comes to maintaining topsoil and slowing down the wind speed. In many Asian countries, firewood is the chief fuel used for cooking and heating, which has caused uncontrolled clear-cutting of forests in dryland ecosystems. When too many trees are cut down, windstorms and dust storms tend to occur.
- F** What's worse, even political conflicts and wars can also contribute to desertification. To escape from the invading enemies, the refugees will move altogether into some of the most vulnerable ecosystems on the planet. They bring along their cultivation traditions, which might not be the right kind of practice for their new settlement.
- G** In the 20th century, one of the states of America had a large section of farmland that had turned into desert. Since then, actions have been enforced so that such a phenomenon of desertification will not happen again. To avoid the reoccurring of desertification, people shall find other livelihoods which do not rely on traditional land uses, are not as demanding on local land and natural resource, but can still generate viable income. Such livelihoods include but are not limited to dryland aquaculture for the raising of fish, crustaceans and industrial compounds derived from microalgae, greenhouse agriculture, and activities that are related to tourism. Another way to prevent the reoccurring of desertification is bringing about economic prospects in the city centres of drylands and places outside drylands. Changing the general economic and institutional structures that generate new chances for people to support themselves would alleviate the current pressures accompanying the desertification processes.
- H** In nowadays society, new technologies are serving as a method to resolve the problems brought by desertification. Satellites have been utilised to investigate the influence that people and livestock have on our planet Earth. Nevertheless, it doesn't mean that alternative technologies are not needed to help with the problems and process of desertification.

### **Questions 14-20**

Reading Passage 2 has eight paragraphs, **A-H**.

Which paragraph contains the following information?

*Write the correct letter, **A-H**, in boxes 14-20 on your answer sheet.*

**NB** *You may use any letter more than once.*

- 14** a reference to the irregular movement of particles
- 15** mention of a productive land turning into a desert in the 20th century
- 16** types of deserts
- 17** mention of technical methods used to tackle the problems of deserts
- 18** the influence of migration on desertification
- 19** lack of agreement among the scientists about the causes of desertification
- 20** a description of the fatal effects of farming practice

## Questions 21-26

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.

**READING PASSAGE 3**

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

**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

*Complete the summary below.*

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

*Write your answers in boxes 27-29 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 enjoys the **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 the torch as a(n) **29** \_\_\_\_\_ at the end of his or her leg of the relay.

## Questions 30-35

Look at the following statements (Questions 30-35) and the list of Olympic torches below.

Match 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
- 31** not environmentally friendly
- 32** beginning to record the runners' name
- 33** potentially risky as it burnt the runner's arms
- 34** special for a theme of 'Light'
- 35** not lit in Greek

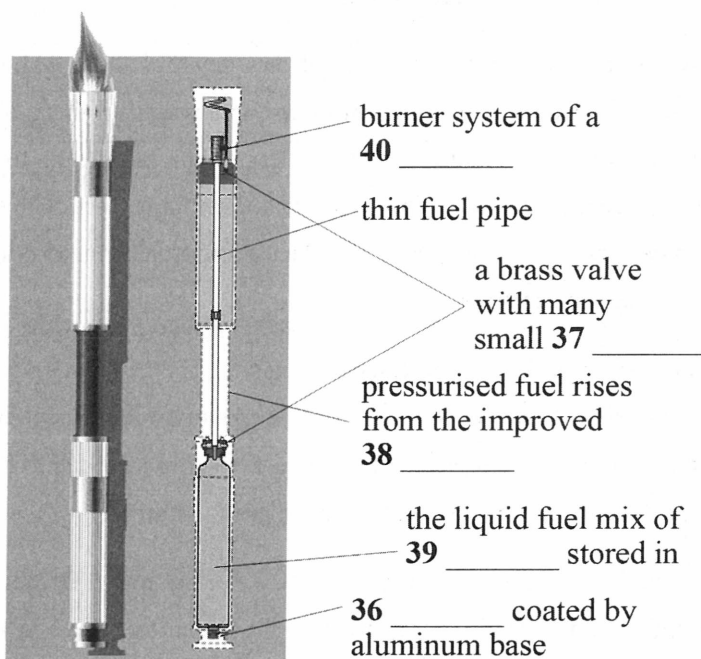
### Questions 36-40

Label the diagram below.

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

Write your answers in boxes 36-40 on your answer sheet.

#### The structure of the 1996 and 2000 Olympic torches



# TEST 5

## READING PASSAGE 1

 **date**  
2017 年 7 月 15 日

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

### The Pearl

- A** The pearl has always had a special status in the rich and powerful all through the 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 bead 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 nonbeaded.

- 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 almost three years, and then be transplanted 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 circle, 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 lustre. 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

Reading Passage 1 has eight 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
- 2 difficulties in cultivating process
- 3 factors which decide the value of natural pearls
- 4 a growth mechanism that distinguishes cultured pearls from natural ones

## Questions 5-10

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 in 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 unusual. 8 \_\_\_\_\_ often manufactures some of the glitteriest pearls while 9 \_\_\_\_\_ produces larger size ones due to the favourable environment 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

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.

## READING PASSAGE 2

*You should spend about 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 the 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 was debuted. A Ford car would come off all assembled from the 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 of 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

Look at the following descriptions (Questions 14-19) and the list of automobile brands below.

Match each description with the correct automobile brand, **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
- 15** produced the industrialised cars that common consumers could afford
- 16** improved the utilisation rate of automobile space
- 17** upgraded the overall performance of the car continuously
- 18** maintained leading growth even during an economic recession
- 19** installed its engine on the front wheel for the first time

## Questions 20-26

*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 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**

*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 designs
- C** The beginning of the modern designed gasoline engines
- D** The history of human and the Auto industry

## READING PASSAGE 3

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

### 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 utilisation 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.

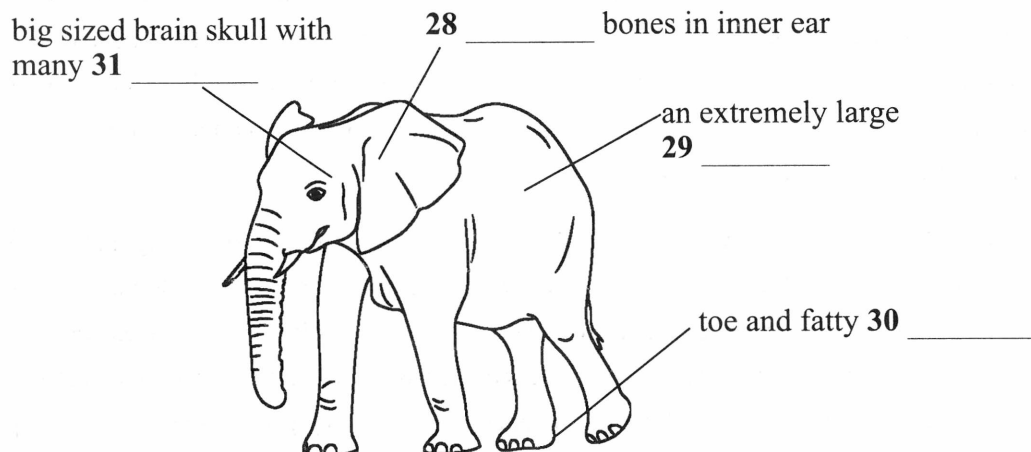
Last year, an experiment was set up in the hope of solving that problem. It used three different recordings—the 1994 warning call from Mushara, an anti-predator call recorded by scientist Joyce Poole in Kenya and a made-up warble tone. 'The data I've observed to this point implies that the elephants 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

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

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 and 40

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

Write the correct letter in boxes 39 and 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 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.

# TEST 6

## READING PASSAGE 1



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

### 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 meats. 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 chemicals 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 drinks 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 reduced 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 influ-

ence 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 (CFS) are no longer used; they are announced illegal in several places, making the refrigeration far safer than before.

## Questions 1-5

Look at the following events (Questions 1-5) and the list of dates below.

Match each event with the correct date, **A-F**.

Write the correct letter, **A-F**, in boxes 1-5 on your answer sheet.

- 1 Vehicles with refrigerator were used to transport on the road.
- 2 Ice was sold around the United States for the first time.
- 3 Some kind of chemical refrigerant was found harmful to the atmosphere.
- 4 The term 'refrigerator' was firstly introduced.
- 5 Some chemicals were added to refrigerate wine.

List of Dates	
A	1550
B	1799
C	1803
D	1840
E	1949
F	1973

## Questions 6-10

Look at the following opinions or deeds (Questions 6-10) and the list of people below.

Match each opinion or deed with the correct person, **A-G**.

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
- 7** invented an ice-cutting technical method that could save money and time
- 8** enabled the cold storage technology to be applied in fruit
- 9** invented a cooling device applied into the trucking industry
- 10** created a new technique to liquefy the air

### Questions 11-14

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

Write the correct letter, **A-E**, in boxes 11-14 on your answer sheet.

- 11 A healthy dietary change between 1830 and the American Civil War was greatly associated with
- 12 The development of urbanisation was likely to cause
- 13 Problems due to water treatment contributed to
- 14 The risk of the environmental devastation from the refrigeration led to

- 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.

## READING PASSAGE 2

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

### 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 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 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

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

*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 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***

*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 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 estimated to be?

## Questions 22-27

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 time.

## READING PASSAGE 3

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

### Questions 28-32

Reading Passage 3 has seven sections, **A-G**.

Choose the correct heading for sections **B-E** and **G** from the list of headings below.

Write the correct number, **i-ix**, 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

<i>Example</i>	<i>Answer</i>
Section A	<b>ii</b>

**28** Section B

**29** Section C

**30** Section D

**31** Section E

<i>Example</i>	<i>Answer</i>
Section F	<b>ix</b>

**32** Section G

## 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, MmO2 (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 33-35

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

Write the correct letter 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** 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**

*Look at the following descriptions (Questions 36-40) and the list of companies below.*

*Match each description with the correct company, A-F.*

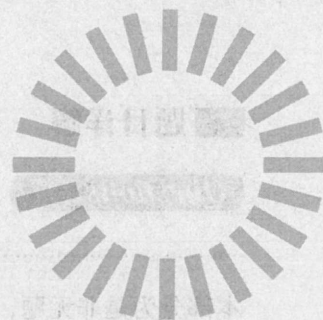
*Write the correct letter, A-F, in boxes 36-40 on your answer sheet.*

#### **List of Companies**

- A** Flytxt
- B** Analysys
- C** Endemol
- D** CMG
- E** MmO2
- F** Gartner

- 36** offered mobile phone message technology
- 37** earned considerable amount of money through a famous programme
- 38** expressed the view that short codes are convenient to remember when turning up
- 39** built their own mobile phone operating applications
- 40** indicated that it is easy for people to send message in an interactive TV





## 真题解析



### Reading Passage 1. The Concept of Childhood in Western Countries

#### 文章结构

体裁	说明文
主要内容	本文主要介绍了西方国家对于儿童观念的变化。
结构	第 1 段：关于儿童概念的传统看法：儿童作为成人。 第 2 段：传统的儿童职责：工作获得收入（15—16 世纪）。 第 3 段：工业化改变了儿童的概念。 第 4 段：工业化后的改革对儿童的影响。 第 5 段：学校教育的出现。 第 6 段：学校教育对儿童的影响。 第 7 段：现在的儿童概念带来的挑战。

## 题目详解

## Questions 1-7

## 思路

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节信息与原文信息的关系，题目遵循顺序原则。在解题时，根据题干中的关键词找到原文中相关的同义替换词：如果题干与原文表述的信息一致，答案为 TRUE；如果题干与原文表述的信息矛盾，答案为 FALSE；如果题干信息在原文中并未出现或并不矛盾，答案为 NOT GIVEN。

## 解答

1. 题干：Aries 指出在中世纪时，儿童所做的某些工作与成年人不同。该题的考点在于比较两者的工作类型是否相同。题干的关键词为 Aries、different from、during the Middle Ages。通过人名 Aries 和时间 during the Middle Ages 很容易定位到第 1 段第 2 句，紧接着便出现 “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.” 这句话是说这个人发现两者没什么区别，因为从事相同的业余活动和工作。显然，题干 different from 与原文 similar 矛盾。因此，本题的答案为 False。
2. 题干：在中世纪，童工通常不被人喜爱。依据顺序原则，继续往下读，就会看到 “However, this does not mean children were neglected, forsaken or despised, he argued.” 这句话是说儿童去工作并不意味着他们被忽视、遗弃或轻视。同时，该段最后一句再次强调这不应该与对儿童的喜爱混淆。显然，题干与原文意思矛盾。因此本题的答案为 False。
3. 题干：一些科学家认为过度劳动可能会损害儿童的健康。依据顺序原则，往后扫读，第 2 段未出现 scientists 相关表述，在第 3 段第 2 句出现 “The issue of whether long hours of labouring would interfere with children’s growing bodies began to perplex social reformers.” 这句话，意思是说这个问题开始困扰社会改革家，但并不确定是否影响。接下来这句直接说其中一些人开始意识到要通过系统研究监测到底长时间劳动会对儿童的成长产生多大影响，这句话也意味着一些人士开始意识到这种劳动的危害性。因此，本题的答案为 True。
4. 题干：在 19 世纪，工会的崛起大大地有利于保护儿童免受剥削。通过题干关键词 trade unions 可定位到第 4 段 “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.” 这句话是说工会和经济变革使得一些形式的童工劳动不再需要，并未提及这是否 “大大有利于” 儿童免受剥削。其实，之前的句子已提到真正保护儿童免受剥削的应该是《1833 年工厂法》的颁布。因此，本题的答案为 Not Given。

5. 题干：19 世纪中期，在日制学校的帮助下，绝大多数孩子都上了学。通过题干关键词 half-time schools 定位到第 5 段开头，但需要注意的是，随后立马出现了转折 however，意思是说尽管有法律的依托，这种学校允许儿童边工作边上学，但真实的情况是，大多数的孩子还是没有上学，即使上，后来也辍学了。原文 a significant proportion of children 对应 题干 most children，attended school 对应 went to school，never 则体现出题干描述与原文相反。因此，本题的答案为 False。
6. 题干：在 20 世纪，几乎所有的孩子都需要全日制上学。通过题干关键词 in the 20th century 和 full-time 搜索，发现文中并未出现这两个概念。因此，本题的答案为 Not Given。
7. 题干：现在，孩子们的需求按照他们的年纪被区分和分类。扫读文章最后一段，发现 “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.” 这句话，其中 are being treated 体现出了时间 nowadays，unique needs 对应 needs are...differentiated，organised into 对应 categorised，in the light of their age 对应 based on how old they are。显然，题干与原文相符。因此，本题的答案为 True。

### Questions 8-13

#### 思路

本部分为简答题，为雅思阅读题型中比较简单的题型之一，主要考查考生在文章中提取相关信息的能力。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。答案一般为原文原词，不需要考生自己总结或归纳。做题时建议考生先看清题目要求字数，然后阅读题干并画出题干关键词，通过关键词回到原文定位，必要时通过同义替换确认要填写的答案。

#### 解答

8. 题干：直至法国历史学家 Philippe Aries 的著作引起关注，什么才成为热点话题？该题答案为名词，且是文中提到的一个争议话题。通过题干人名 Philippe Aries 定位到文章引言处，其中 has been a heated topic...since 为题干 has not become a hot topic until 的改写。鉴于题目要求不超过三个单词，这里可以省略冠词。因此，本题的答案为 history of childhood。
9. 题干：Aries 认为在中世纪的西欧，儿童应是什么样的形象？通过题干关键词 in Western Europe 和 during the Middle Ages 定位到第 1 段第 2 句话，其中 asserted 对应 题干 believe，were regarded as 对应 题干 are supposed to be like。因此，本题的答案为 miniature adults。
10. 题干：在 18—19 世纪发生了什么历史事件，需要大量儿童长时间工作？通过时间词

in the 18th and 19th centuries 定位到第 3 段第 1 句, 其中 created a new demand for child labour 对应题干 generated the need for a large number of children to work for a long time。因此, 本题的答案为 industrialisation/industrialization。

11. 题干: 在 19 世纪, 英国颁布了什么法案来保护儿童不受剥削? 通过题干关键词 in Britain 定位到第 4 段第 2 句, 其中 act 对应题干 bill, protection of children from exploitation 对应题干 protect children from exploitation, 所以可以锁定 “the Factory Act of 1833”。由于题目限定不超过 3 个字母, 题干本身限定了时间 in the 1800s, 答案可以省略时间 1833。因此, 本题的答案为 the Factory Act。
12. 题干: 在 19 世纪, 什么活动越来越受到几乎所有孩子的偏爱? 该题定位词不明显, 需要通过理解上下文的意思来判断。依据顺序原则, 继上一题往下读, 发现文中提到让儿童工作使其成为 “有用的” 人已不再是优先选择, 反倒童年被认为是儿童玩耍和学习的时期, 这一说法针对所有儿童, 不再是少数人的特权。因此, 本题的答案为 play and education。
13. 题干: 在学校, 儿童会在什么地方度过一天中的大部分时光? 该题相对容易, 扫读 school 出现后的段落, 发现了第 6 段第 1 句, 其中 spend a significant part of their day 对应题干 spend the majority of time during their day, 介词 in 之后的地点名词即为答案。因此, 本题的答案为 (a) classroom。

## 参考译文

### 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

### 西方国家的童年概念

1960 年, 法国历史学家菲利普·阿利埃斯 (Philippe Aries) 的著作《童年的世纪》(Centuries of Childhood) 的兴起引起了极大的反响。之后, 童年的历史便一直是社会史中的一个热点话题。阿利埃斯认为, “童年” 这个概念是现代社会的产物。

在有关童年的历史中, 人们热衷于探讨 “童年” 是否为近代的发明词。历史学家菲利普·阿利埃斯认为, 在中世纪 (15 世纪末之前) 的西欧, 人们认为儿童是缩小版的成年人, 认为他们具有健全的智慧 and 人格。阿利埃斯

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 adult. 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

调阅了中世纪的图片和记录,他认为儿童和成年人之间没有明确的界限,他们拥有相同的娱乐活动和工作。但是他表明这并不意味着儿童受到了忽视、遗弃或轻视。童年的概念符合对童年特性的认知,这一概念将儿童和成年人(包括年轻人)区分开来。因此,童年的概念不应与对儿童的喜爱混为一谈。

长久以来,儿童都为家庭的收入做出了一定贡献。在这种情况下,人们认为儿童是有用的。在中世纪,5岁或6岁的儿童会帮父母做许多重要的杂务。而在16世纪,家长则通常鼓励或强迫9岁或10岁的儿童离开家庭,去富人家里做仆人或者做学徒学习一门手艺。

在18—19世纪,工业化的兴起和发展对童工产生了新的需求,因此许多儿童被迫长时间在矿场、车间以及工厂工作。长时间的体力劳动是否会影响到儿童的身体成长,这个问题令社会改革家们疑惑不解。他们中的一些人开始意识到有必要进行系统的研究,以监测这些早期的劳动可能会对儿童的成长产生多大的影响。

改革家们的担忧渐渐地对儿童工作环境的改善起到了一定作用。例如,在英国,《1833年工厂法》(*the Factory Act of 1833*)明确了对儿童的法律保

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**

护, 使其免受剥削; 此外, 法案还促进了学校的建立, 使得在工厂劳动的儿童能够上学。由于工厂改革, 最严重形式的剥削儿童的工作逐步被废除。工会的影响和经济改革也使得 19 世纪一些形式的童工劳动成为多余。让儿童工作成为“有用的”人已不再是人们的首要选择。同时, 童年被视为是所有儿童玩耍并接受教育的时期, 不再被视为少数儿童的特权。越来越多的人认为童年是培养独立性、促进成长以及学习知识的阶段, 儿童从事全职工作的年龄也逐渐后移。即便如此, 对于 19 世纪末和 20 世纪末的儿童来说, 虽然不用再承担大量的劳动, 但雇佣童工仍然存在。最后, 由于全世界对大量童工的关注, “儿童有用论”在 21 世纪前十年间变成了一个广受争议的话题。

半日制学校使得儿童可以兼顾工作和学习, 这些学校也是基于《1833 年工厂法》创建的。然而, 在 19 世纪 40 年代, 仍有许多儿童无法上学, 即使入学, 也会在 10 或 11 岁辍学。在 19 世纪末的英国, 情况发生了很大的改观, 学校成为“正常的”童年概念的核心。

对于儿童来说, 上学不再是一个特权, 所有的儿童每天都会在学校教室里度过大部分时间。儿童在学校的生活明显区分于家庭生活或者成人的工作生活。在这种方式下, 学校就成为培养儿童思想、规范行为以及塑造品行的

**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.

机构。此外,教育占据了儿童一天的大部分时间,包括上课、做作业(包含参加课外活动)以及和家长参与的活动。

工业化、城市化以及广泛的学校教育逐渐发展,这给保障儿童的福利、激励儿童学习提出了新的挑战。越来越多的儿童受到了针对性的对待,以满足他们的特殊需求,人们还根据不同的年龄对儿童进行了划分。比如,老师需要了解在课堂上他们对儿童该有怎样的期待;对于不同年龄的儿童,哪种教学方法更合适;怎样才能最好地评估儿童的进步。此外,他们还需要知道如何根据儿童的能力和潜力来对他们进行区分和选拔。

## 词汇详解

### · 引言 ·

heated /'hi:tɪd/ *adj.* 激烈的

influential /ˌɪnflu'enʃl/ *adj.* 有影响力的

emerge /i'mɜ:dʒ/ *v.* 兴起,开始为人所知

### · 第 1 段 ·

intensely /ɪn'tensli/ *adv.* 激烈地

assert /ə'sɜ:t/ *v.* 主张

miniature /'mɪnɪətʃə(r)/ *adj.* 微型的

imply /ɪm'plaɪ/ *v.* 暗示

scrutinise /'skru:tənaɪz/ *v.* 仔细察看

medieval /ˌmedi'i:v/ *adj.* 中世纪的

neglect /nɪ'glekt/ *v.* 忽视

forsake /fə'seɪk/ *v.* 遗弃

despise /dɪ'spaɪz/ *v.* 轻视

peculiar /pɪ'kju:liə(r)/ *adj.* 独特的

nature /'neɪtʃə(r)/ *n.* 本性

distinguish /dɪ'stɪŋɡwɪʃ/ *v.* 区分

affection /ə'fekʃn/ *n.* 喜爱

### · 第 2 段 ·

functional /'fʌŋkʃən/ *adj.* 功能的

chore /tʃɔ:(r)/ *n.* 家务活儿

apprentice /ə'prentɪs/ *n.* 学徒

trade /treɪd/ *n.* 手艺

· 第 3 段 ·

industrialisation /m,dʌstriəlaɪ'zeɪʃn/ *n.* 工业化

mine /maɪn/ *n.* 矿区

workshop /'wɜ:kʃɒp/ *n.* 车间

interfere /,ɪntə'fɪə(r)/ *v.* 妨碍

perplex /pə'pleks/ *v.* 使困惑

systematic /,sɪstə'mætɪk/ *adj.* 系统的

monitor /'mɒnɪtə(r)/ *v.* 监测

deprivation /,deprɪ'veɪʃn/ *n.* 剥夺 ; 匮乏

· 第 4 段 ·

signify /'sɪgnɪfaɪ/ *v.* 意味着

exploitation /,eksplɔɪ'teɪʃn/ *n.* 剥削

eliminate /ɪ'lɪmɪneɪt/ *v.* 消除

redundant /rɪ'dʌndənt/ *adj.* 多余的

initiate /ɪ'nɪʃɪeɪt/ *v.* 使加入 ; 使开始

priority /praɪ'ɒrəti/ *n.* 优先处理的事

privileged /'prɪvələdʒd/ *adj.* 享有特权的

minority /maɪ'nɒrəti/ *n.* 少数

dependency /dɪ'pendənsi/ *n.* 依赖

controversial /,kɒntərə'vɜ:ʃl/ *adj.* 有争议的

· 第 5 段 ·

dramatically /drə'mætɪkli/ *adv.* 显著地

core /kɔ:(r)/ *n.* 核心

· 第 6 段 ·

institution /,ɪnstɪ'tju:ʃn/ *n.* 机构

dedicated /'dedɪkeɪtɪd/ *adj.* 专用的

shape /ʃeɪp/ *v.* 塑造

moral /'mɒrəl/ *n.* 道德

dominate /'dɒmɪneɪt/ *v.* 占据支配地位

parental /pə'rentl/ *adj.* 父母的

involvement /ɪn'vɒlvmənt/ *n.* 参与

· 第 7 段 ·

urbanisation /,ɜ:bənəɪ'zeɪʃn/ *n.* 城市化

mass schooling 广泛的学校教育

in the light of 根据

assess /ə'ses/ *v.* 评估

sort /sɔ:t/ *v.* 分类

## Reading Passage 2. Bestcom—Considerate Computing

### 文章结构

体裁	说明文
主要内容	本文主要描写了对未来电话系统的期待、它的原理，以及对它的展望。
结构	<p>第1段：提出现象：人们在生活中愈发习惯不断被电子设备打扰。</p> <p>第2段：提出问题：人们并没有关闭电子设备而是在忍受这些干扰。</p> <p>第3段：明确需求：人们需要体贴的系统。</p> <p>第4段：众多公司的研发现状。</p> <p>第5段：进一步的实验：研究人类的“可打断性”。</p> <p>第6段：进一步研发的方向：提高准确度。</p> <p>第7段：例子：介绍 Bestcom-ET 电话系统。</p> <p>第8段：Bestcom 系统的工作原理。</p>

### 题目详解

#### Questions 14-19

#### 思路

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节信息与原文信息的关系，题目遵循顺序原则。在解题时，根据题干中的关键词找到原文中相关的同义替换词：如果题干与原文表述的信息一致，答案为 TRUE；如果题干与原文表述的信息矛盾，答案为 FALSE；如果题干信息在原文中并未出现或并不矛盾，答案为 NOT GIVEN。

#### 解答

14. 题干：根据 Ted Selker 所说，人类的繁殖在历史上一直受到干扰。题干关键词为 Ted Selker、human reproduction。通过人名 Ted Selker 可定位到第1段的最后：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. 其中 procreation 替换了题干 human reproduction。我们需要对这句话理解一下，它是说人们已经习惯于不断受到计算机请求的干扰，就像对人类繁衍一样熟悉。文中并没有提到繁殖是否有被干扰。因此，本题的答案为 Not Given。
15. 题干：如果人们被电话或电子邮件打断，他们往往会继续忍受而不是感到不舒服。题干关键词为 calls、e-mails、put up with。根据 e-mails 定位到第2段倒数第2句，

这句话说人们不会关闭手机、邮件系统和办公室的门，接下来进行了总结：We merely endure the consequences. 其中 merely endure 表明了态度，对应 usually put up with。说明题干信息与原文意思一致。因此，本题的答案为 True。

16. 题干：微软正在研发一款适合日常办公的软件。题干关键词为 Microsoft、now、software、is compatible with ordinary offices。根据 Microsoft 定位到第 3—4 段，扫读发现第 3 段讲的是干扰对人们造成的危害，而第 4 段讲了各个公司对于软件的开发。其中谈到微软自 2003 年后一直在对一种更为复杂的系统进行广泛内测，而数年之后，各个公司有希望让每个员工都能用上这款个人接待员的软件，这一软件目前只适用于高管阶层。从中也可以看出，未来各个公司可能会用上的这款个人接待员日常办公软件正是微软目前正在内测的软件。因此，本题的答案为 True。
17. 题干：人们往往对他们是否忙碌存在误解。题干关键词为 misperception、busy。通过 busy 可以定位到第 5 段的开头，这句以 however 转折，意思是说事实上，人们没有他们说的那么忙，这也解释了为什么常常能够忍受各种不贴心设备的干扰。其中 not as busy as they claim to be 对应 misperception。题干与原文表述一致。因此，本题的答案为 True。
18. 题干：Carnegie Mellon University 的专家们对 IBM 的所有职业进行了研究。题干关键词为 Carnegie Mellon University、IBM、all occupations。根据大学名称很容易定位到第 5 段第 2 句：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. 由此可见，他们研究了三类人，即 managers、researchers、interns，并不是所有的职业。因此，本题的答案为 False。
19. 题干：目前的电话和计算机系统都有快捷键供人们即时接收信息。题干关键词为 phone and computer systems、shortcut keys、receiving information immediately。通过 phone and computer systems 可定位到第 6 段的开头，扫读后发现并未出现关于 shortcut keys（快捷键）的同义替换或相关描述。因此，本题的答案为 Not Given。

### Questions 20-26

#### 思路

本部分为流程图填空题，为雅思阅读题型中比较简单的题型之一。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。答案一般为原文原词，个别情况需要变换形式。做题时建议考生先看清题目要求字数并预判词性，然后阅读题干并画出题干关键词，接着通过关键词回到原文定位，必要时通过同义替换确认要填写的答案。

..... 解答 .....

20. 题干：Bestcom 系统付出了更多的努力以发现关于用户活动的什么。空白处需要填写一个名词成分。通过题干关键词 Bestcom 定位到原文倒数第 2 段的第 1 句话：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. 其中原文 find out...about what they are dealing with 对应题干 find...about what users are doing, digs a bit deeper into 替换题干 makes further efforts。因此，本题的答案为 clues。
21. 题干：检查来电者和使用者之间的什么、来电者是否有用户的联系方式，比如是家人、朋友还是同事。空白处需要填写一个名词成分。这一点位于“in the office”之下，通过 in the office 回原文上一题答案出现之后寻找，可定位到倒数第 1 段第 1 句 in his office。接着往后读了解一下这句的意思，这个系统首先会检测一下来电者是否在用户的通讯录、公司目录或“最近的呼叫”的列表中。通过对这些进行筛选，以确定来电者和用户之间的关系。其中 if the caller is in his address book, the company directory, or the 'recent call' list 对应题干 whether the caller has contact information of the user, figure out 对应 check, their 指的就是 the caller and the user。因此，本题的答案为 relationship。
22. 题干：如果来电者不在通讯录上，什么会出现在来电者的屏幕上。空白处需要填写一个单数名词。根据顺序原则接着往下读，通过题干关键词 screen 可定位到：Other callers will get a message on their screens... 其中 get 替换了题干 will show up，其后名词即为答案。因此，本题的答案为 message。
23. 题干：该系统会怎么一个同时合适两个人的时间。显然，空白处需要填写一个动词成分。通过题干关键词 the system 定位到：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. 其中 a time which works for both of them 对应了题干中的 a suitable time for both。因此，本题的答案为 reschedule。
24. 题干：或来电者能留下什么给用户。空白处需要填写一个单数名词。本题紧接上一题，顺序原则接着往下读，发现 Some callers will take that option, while others simply leave a voicemail. 其中题干 leave 原词重现；需要注意只能填写一个单词，如果填写 voice mail 则算错。因此，本题的答案为 voicemail。
- 25&26. 这两道题在一句话中，可以放到一起去定位。25 题的题干：Bestcom 会提供解决方案通过转移来电到用户的什么上；26 题的题干：除非用户的日程中没有什么。空白处都应该填写一个名词成分。通过 out of the office 可定位到最后 1 段的最后 1 句 ...is not in his office，所以 25 和 26 题的答案应该就在这一句中。25 题的题干关键词 transfer 原文原词重现，callers 替换了题干 your call, his (即 Horvitz's) 替换了题

干 the user's, to 之后的名词即为答案。因此, 25 题的答案为 cellphone。26 的题干 his or her schedule 在原文被替换为 his calendar, if there is no... 在原文替换为 unless。因此, 26 题的答案为 meeting。

## 参考译文

### 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 **multi-tasking**. '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.

### 百事通——贴心的计算机应用系统

“您的电池已经充满了。”这台笔记本电脑用一种合成的声音对它的主人唐纳德·A. 诺曼(Donald A. Norman)说道, 它的语调里充满了热情, 甚至透露一丝骄傲。确切地说, 人类十分熟悉这种需要分散注意力和完成多种任务的事情。“我们已经习惯了不断被电脑分散注意力的复杂生活, 就像我们已经熟悉了人类的生存繁衍一样。”麻省理工学院媒体实验室的特德·塞尔克(Ted Selker)笑着说道。

人类已经与大约 30 亿台联网的手机、电脑、交通信号灯, 甚至还有冰箱和相框相连, 因为这些物件可以使我们的日常生活更加便利。这也解释了为什么即使我们即将开会或需要集中注意力完成某事时, 往往仍然不关闭手机、邮件系统, 也不关上办公室的门。我们仅仅是忍受着被干扰的后果。

无数的研究报告已经证实, 假如人们的注意力突然被打断, 他们的工作效率会下降, 工作也更容易出错。根据密苏里大学罗伯特·G. 皮卡德(Robert G. Picard)的说法, 这似乎会累积人们的挫折感, 而压力情绪又让人很难再集中注意力。这不只是关乎工作效率和生活节奏的问题。对于一些专

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

业人士, 比如飞行员、司机、士兵和医生等, 他们一旦缺乏注意力就可能导致严重的后果。微软研究院的埃里克·霍维茨 (Eric Horvitz) 说: “如果我们能找到一种方法可以让电脑和手机意识到人类注意力和记忆的局限性, 它们可能会变得更体贴、更有礼貌。”霍维茨、塞尔克和皮卡德只是一群发展迅速的研究员中的少数一部分, 他们正努力让电脑、手机、汽车和其他设备的功能更像贴心的同事, 而不是一群以自我为中心的傻瓜。

要做到这一点, 设备需要具备三种新功能: 感知、推理和交流。首先, 系统必须感知或推断其所有者的位置以及他或她的活动。其次, 它必须对比中断的成本, 权衡想要传达的信息的价值。然后它必须选好最佳的方式和时间打断主人的活动。每一项功能都突破了计算机科学的极限, 并提出了隐私、复杂性或可靠性的问题。尽管如此, “专注” 计算机应用系统 ('Attentive' Computing Systems) 已经开始应用于最新款的沃尔沃汽车中。国际商业机器公司 (IBM) 研发设计了一款名为 WebSphere 的通信软件, 它会假定人们的忙碌状态。微软自 2003 年开始就一直对一种更为复杂的系统进行广泛的内测。再过几年, 很多公司可能会为每一位办公室员工提供一版个人接待员的软件, 而目前这种软件仅适用于小范围高管阶层。

然而, 事实上, 大多数人并不像他们声称的那样忙碌, 这也解释了为什么我们总是能忍受不体贴的电子设备的

erate 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** limits.

**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

干扰。为了确定这些干扰对我们日常生活的影响程度,由卡耐基梅隆大学的詹尼弗·莱依(Jennifer Lai)带领的IBM研究团队对公司的十名管理者、研究员和实习生进行了测试。他们会受试者进行录像监控,同时在特定的时间内,他们要求受试者评估自己的“可中断性”。员工独处的时间因人而异,每一天都不同;独处的时长从10%到51%不等。一般而言,员工希望一天大概有三分之一的时间不被打扰。同样地,通过研究微软的员工,霍维茨也发现他们一天中65%以上都处于注意力不集中的状态。

显然,现在的手机和电脑通过假定他们的用户总是有时间接听电话、查收邮件或者单击警告框里的OK按钮,可能有三分之二的时间猜测正确。但考虑到贴心系统的功能性和实用性,当其用户即将达到自己的认知极限时,该系统发送信息的准确率必须达到65%以上。

受霍维茨研究的启发,微软雏形百事通增强电话(Bestcom-ET)深入研究了每个用户的电脑,试图找到一些他们待处理事情的线索。正如我之前所说,微软在2003年年中推出了该系统的内测版。霍维茨指出,截至去年十月底,近3800人依靠该系统接听来电。

实际上,霍维茨本人就是一个受试者。

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.

当我们在他的办公室里谈话时,百事通默默地接听了他所有的来电。首先,它会检查来电者是否在霍维茨的通讯录、公司目录或“最近的呼叫”的列表中。对这些列表同时进行筛选后,它可以弄清来电者与霍维茨的关系。接听的电话通常是来自霍维茨的家人、领导或者那天通过话的人。其他的来电者会在他们的屏幕上收到一个信息,显示霍维茨现在无法接听电话,因为他在开会,直到下午3点才有空。百事通系统将扫描霍维茨和来电者的日程表,以确定是否能重新安排一次符合双方时间的通话。一些来电者会接受这个选项,而其他可能仅仅是留下语音留言。电子邮件也是类似原理。当霍维茨不在办公室时,百事通会自动将选定的来电者转移到他的手机上,除非他的时间表上显示他在开会。

## 词汇详解

### · 标题 ·

considerate /kən'sɪdərət/ *adj.* 体贴的  
computing /kəm'pjʊtɪŋ/ *n.* 计算机应用

### · 第1段 ·

charge /tʃɑ:dʒ/ *v.* 充电  
announce /ə'naʊns/ *v.* 说, 宣告  
synthetic /sɪn'tetɪk/ *adj.* 合成的  
a hint of 少许  
distraction /dɪ'strækʃn/ *n.* 注意力分散  
multitasking /mʌlti'tɑ:skɪŋ/ *n.* 同时处理多项任务  
constantly /'kɒnstəntli/ *adv.* 不断地

interrupt /ˌɪntə'rʌpt/ *v.* 中断  
procreation /ˌprəʊkri'eɪʃn/ *n.* 生殖繁衍

### · 第2段 ·

humanity /hju:'mænəti/ *n.* 人类  
approximately /ə'prɒksɪmətli/ *adv.* 大约  
facilitate /fə'sɪlɪteɪt/ *v.* 促进  
endure /ɪn'djʊə(r)/ *v.* 忍耐

### · 第3段 ·

countless /'kaʊntləs/ *adj.* 无数的  
cumulatively /'kju:mjələtɪvli/ *adv.* 累积地  
downright /'daʊnraɪt/ *adv.* 完全

disastrous /dɪ'zɑːstrəs/ *adj.* 灾难性的  
thoughtful /'θɔːtfl/ *adj.* 体贴的  
courteous /'kɜːtiəs/ *adj.* 有礼貌的  
prosper /'prɒspə(r)/ *v.* 蓬勃发展  
egocentric /,egəʊ'sentrik/ *adj.* 自我中心的  
oaf /əʊf/ *n.* 傻瓜

· 第 4 段 ·

sense /sens/ *v.* 感知  
reason /'riːzn/ *v.* 推断  
weigh /wei/ *v.* 权衡  
interject /,ɪntə'dʒekt/ *v.* 打断  
reliability /rɪ,lɪə'bɪləti/ *n.* 可靠性  
nevertheless /,nevəðə'les/ *adv.* 然而  
attentive /ə'tentɪv/ *adj.* 体贴的  
make an appearance 出现  
underlying /,ʌndə'laɪɪŋ/ *adj.* 潜在的  
in-house /,ɪn 'haʊs/ *adj.* 内部的  
receptionist /rɪ'sepʃənɪst/ *n.* 接待员  
executive /ɪg'zekjətɪv/ *n.* 主管, 经理

· 第 5 段 ·

interruption /,ɪntə'rʌpʃn/ *n.* 中断, 干扰  
paraphernalia /,pærəfə'neɪliə/ *n.* 设备  
claim /kleɪm/ *v.* 索取  
videotape /'vɪdiəteɪp/ *n.* 录像带  
roughly /'rʌfli/ *adv.* 大致地

· 第 6 段 ·

assume /ə'sjuːm/ *v.* 假设

alert /ə'lɜːt/ *adj.* 留心的  
functional /'fʌŋkʃənl/ *adj.* 功能性的  
accuracy /'ækjərəsi/ *n.* 准确性, 精确度  
cognitive /'kɒgnətɪv/ *adj.* 认知的

· 第 7 段 ·

inspire /ɪn'spaɪə(r)/ *v.* 鼓舞, 激励  
prototype /'prəʊtətaɪp/ *n.* 原型  
telephony /tə'lefəni/ *n.* 电话  
dig into 探究  
launch /lɔːntʃ/ *v.* 发布  
field /fiːld/ *v.* 成功应对  
incoming /'ɪnkʌmɪŋ/ *adj.* (短信、邮件等)  
进来的

· 第 8 段 ·

directory /də'rektəri/ *n.* (通常按字母顺序  
记录姓名、地址、电话、公司通讯录等  
的) 簿  
triangulate /traɪ'æŋgjʊleɪt/ *v.* 把……分成三  
角形  
supervisor /'suːpəvaɪzə(r)/ *n.* 主管  
reschedule /,ri:'ʃedjuːl/ *v.* 重新排定日程  
callback /'kɔːlbæk/ *n.* 电话回话  
voicemail /'vɔɪsmel/ *n.* 语音信箱  
automatically /,ɔːtə'mætɪkli/ *adv.* 自动地  
imply /ɪm'plaɪ/ *v.* 暗示

Reading Passage 3. Can Hurricanes be Moderated or Diverted?

文章结构

体裁	说明文
主要内容	本文主要介绍了我们是如何利用计算机技术和其他高科技，让飓风改变移动路径，以此减少它造成的损害。
结构	A 段：飓风摧毁力强大，从而引出问题：人工是否可控制飓风。 B 段：飓风的形成原理。 C 段：受早期混沌理论启发和计算机模拟技术发展影响，重拾研究。 D 段：飓风计算机模拟实验过程。 E 段：计算机模拟实验的结果。 F 段：未来研究的方向：太阳能发电站或电池板。 G 段：未来研究的方向：降水、蒸发与气温。

题目详解

Questions 27-33

思路

本部分为段落标题配对题，要求将各段落与其对应的标题进行匹配。该题型主要考查段落大意与选项信息的匹配。

做题时，首先分析选项并画出关键信息。然后，依照原文顺序扫读文章各段，找出核心句或词，如果没有明显的核心句或词，则需要自己根据上下文概括一下核心大意。最后，对比选项关键信息，选出一个最为恰当的标题。

解答

- i 历史上的飓风
- ii 飓风如何形成
- iii 实验演习如何改变飓风路径
- iv 使用未来科技的激动人心的方法
- v 飓风是无法控制的？
- vi 重新考虑早期的观点
- vii 如何挽救生命
- viii 一系列低技术含量的方法

27. A 段首先描述了飓风强大的威力和破坏力,紧接着提出问题: But can we ever find a way to control these formidable forces of nature? 这句话起到了承上启下的作用: 是否能找到方法控制这种破坏力量? 接下来的段落都在围绕这个话题阐述。纵观选项, 只有 v 选项 Are hurricanes unbeatable? 相对合适。因此, 本题的答案为 v。
28. B 段的第 1 句话为核心主旨句: 如果想了解如何能影响飓风, 那首先要了解一下飓风的起因。接下来该段都在描写飓风的成因和形成过程, 对应 ii 选项 How hurricanes form。因此, 本题的答案为 ii。
29. C 段的第 1 句话为核心主旨句: 30 年前我学习时的一个直觉成为现在研究的灵感。整个 C 段都在描写利用混沌理论的思路形成了现在对飓风进行模拟和影响的思路。在各个选项中, vi 选项 Re-visit earlier ideas 最为合适, 这里的 earlier ideas 就是指混沌理论。因此, 本题的答案为 vi。
30. D 段的第 1 句话为核心主旨句: 我们建立了电脑模拟实验来研究是否可以利用大气系统中的敏感性来影响强大的大气现象, 比如飓风。D 段的后半部分都在描述电脑模拟的具体细节内容。因此, 本题选 iii How a laboratory exercise re-route a hurricane 最为合适。
31. E 段承接 D 段内容, 上一段是实验的具体内容, 这一段就是实验结果。通过改变温度和风速, Kauai 避免了遭遇飓风最具破坏力的部分。因此, 本题选 vii How lives might have been saved 最为合适。
32. F 段第 1 句话为核心主旨句: 未来我们用来影响飓风的有可能是绕着地球转动的太阳能空间站, 它可以通过传输微波来影响飓风和其周围的水分子, 以此来影响飓风的强度和方向。因此, 本题选 iv Exciting ways to utilise future technologies 最为合适。
33. G 段的第 1 句话说计算机模拟飓风实验表明降水、蒸发和气温的改变都将会影响飓风。下文就列举了一些人工干预的方法, 比如使用碘化银等。因此, 本题选 viii A range of low-tech methods 最为合适。

### Questions 34-38

#### 思路

本部分为摘要填空题, 为概括总结型题目, 在雅思阅读中难度适中。该题型着重考查对原文一段或几段甚至全文的大意补充完整。句与句之间在原文中跨度可能略大, 基本遵循顺序原则 (偶尔会出现乱序), 所以如果关键词处找不到答案, 可向上或向下多读几句。做题时, 先通读摘要, 了解大致内容, 锁定摘要的起始段落。扫读这段话, 发现这段话是在描述飓风的成因及形成过程, 锁定文章 B 段。然后画出空白处附近有助于定位的关键词, 回文中寻找相应表述, 必要时通过同义替换或理解意思确定答案, 答案一般为原文原词。如在句首, 首字母需要大写。

### 解答

34. 题干：飓风是从热带海上的什么变化而来。题干 groups of 提示空白处需填写一个复数名词。通过题干 tropical、low-latitude 可定位到 B 段 2—3 句，发现了这句话：Hurricanes grow in the form of thunderstorm clusters above the tropical seas. 其中 clusters 同义替换题干 groups of，这里需要填写复数形式。因此，本题的答案为 thunderstorms。
35. 题干：什么释放了热量。通过题干 precipitation、solar heat 可定位到 “Condensation gives out heat in the process” 这句话附近。原文 gives out 同义替换了题干 releases。因此，本题的答案为 Condensation。
36. 题干：所谓的潜在凝结的什么会让空气更具浮力。通过题干 latent、buoyant 可定位到 “This so-called invisible heat of condensation makes the air more buoyant, leading to it ascending higher while reinforcing itself in the feedback process.” 这句话中，buoyant 原词重现，invisible 替换题干 latent。因此，本题的答案为 heat。
37. 题干：最终，热带低气压逐渐增强，形成了我们熟悉的什么。通过题干 tropical depression 定位到 “At last, the tropical depression starts to form and grow stronger, creating the familiar eye.” 其中 creating 替换题干 forming，familiar 修饰的名词即为答案。因此，本题的答案为 eye。
38. 题干：跨过什么后，缺乏持续温热水气补充的飓风就被快速削弱。依据顺序原则，在 B 段最后 1 句，发现 “When reaching the land, the hurricane no longer has a continuous supply of warm water, which causes it to swiftly weaken.” 其中 reaching 为题干 passing over 的改写。因此，本题的答案为 land。

### Questions 39 and 40

### 思路

本部分为单项选择题，是雅思阅读中难度较高的题型之一。该题难点在于部分题目需要对细节进行理解和分析，同时选项可能会出现干扰。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。

### 解答

39. 题干：是什么促使作者开始研究飓风控制？题干 restart 一词说明作者之前研究过，但因为某些原因停止了研究，现基于某些原因，重拾该项研究。浏览四个选项一一排除：选项 A 更可能是最初想研究控制飓风的原因；选项 C 文中未提及；选项 D 可根据 chaos theory 定位到 C 段开头，文中提到现在的研究灵感来源于 30 年前的混沌理论，但这不是重拾这项研究的原因，可排除。在 C 段的最后，作者提到过去自己没能验证想法，即人类是否能够影响风暴。但由于计算机模拟技术和遥感技术在过

去 10 年的发展,自己现在重燃了对于大规模控制天气的热情。因此,本题的答案为 B。

40. 题干:作者在第一个实验后的反应是什么?通过做之前的题目,我们了解到实验的具体内容在 D 段。通过 first experiment 可定位到“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.”其中 take sb. by surprise 意为“使某人吃惊”,success 说明了 D 段开头“是否可以利用大气敏感度来控制飓风这样的大气现象”以及“实验的目标是改变飓风的路线”都有了结果。因此,本题的答案为 C。

## 参考译文

### Can Hurricanes be Moderated or Diverted?

### 人类可以削弱飓风或改变其路径吗?

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?

每年都有大量的飓风席卷热带海洋和海岸地区,风速高达每小时 74 英里,它们通常会摧毁大面积的区域。当热带气旋袭击人口密集区时,可能会导致上千人死亡以及数十亿美元的财产损失。飓风摧毁力极强,势不可挡。但我们是否能找到一种方法来控制自然界的这种巨大力量呢?

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

要想弄清楚人类干预为什么会对飓风及其他严重的热带风暴产生影响,研究人员必须先了解一下它们的性质和起源。飓风以雷暴的形式聚集在热带海洋上。低纬度的海域会不断地向大气释放热量和水分,从而在海面上形成湿热的空气。当空气上升时,里面的水蒸气会凝结成云和降水。凝结过程中会释放热量,即太阳的热量会让海洋的表层水蒸发。这种所谓的看不见的凝结热量会增加空气的浮力,使空气在增强自身的吸热过程中不断上

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 fore-

升。最后,热带低气压逐渐形成并变强,形成飓风眼,即飓风旋转时围绕的平静中心。由于缺乏持续的湿热水气补充,飓风在抵达陆地时会迅速减弱。

我30年前对混沌理论的学习启发了我们现在的研究。长期预测之所以复杂,是因为大气对微小的变化十分敏感,而在天气预报模式中很容易出现细微的误差。然而,这种敏感度也让我意识到一种可能性:如果我们对飓风稍加一些细微的人工干预,可能会对整个风暴产生极大影响,进而引导风暴远离人口稠密地区,或降低速度。当年我还不能验证这一想法,但是在过去的10年中,计算机模拟和遥感技术取得了巨大进步,所以我现在可以重燃希望,以实现宏观天气的控制。

为了验证是否可以利用大气系统的敏感度来调整像飓风这样强大的大气现象,我们的研究小组对1992年发生的伊尼基(Iniki)飓风进行了计算机模拟实验。由于目前的预测技术还远不够完美,所以第一次模拟实验能够迅

casting 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 sur-

速成功, 我们对此感到十分惊讶。考虑到要改变伊尼基飓风的路线, 我们首先选择了 6 小时后希望风暴停止的地方, 然后利用这个目标算出人工的观测结果, 并将其输入计算机模型中。

起始的温度和风产生了最显著的变化。通常, 网格上的温度变化只有 0.1 度, 但是在最底层模型的风暴中心的西部, 温度几乎升高了 2 摄氏度, 这是最大的变化。计算得出了每小时两三英里的风速变化。然而在一些区域, 由于靠近风暴中心, 风向发生轻微改变, 风速变化可达每小时 20 英里。在结构方面, 最初的伊尼基飓风和改变之后的版本几乎一样, 但关键变量的变化十分巨大, 以致改变后的飓风在前 6 个小时的模拟中偏离轨道向西而去, 然后向北直行, 完全错过了考艾岛 (Kauai)。

未来围绕地球轨道运行的太阳能发电站将配备大型镜面以聚焦太阳光, 以及太阳能电池板来收集能量并传送到地球。这些太阳能发电站可能会用来发射微波, 而这些微波会被风暴内部或周围的水分子吸收。微波会使水分子振动以加热周围的空气, 从而导致飓风减速或者向预定的方向移动。

rounding 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.

计算机模拟飓风实验表明, 我们可以通过改变降水、蒸发和气温来改变风暴的路径或减弱其风力。干预的形式有许多种: 带有碘化银或其他降雨因素的云朵, 可能会在飓风的风眼墙阻断其发展和扩大所需的水, 这也是大型热带风暴的基本特征。

## 词汇详解

### · 标题 ·

hurricane /'hʌrɪkən/ *n.* 飓风

moderate /'mɒdəreɪt/ *v.* (使) 和缓, (使) 减轻

divert /daɪ'vɜ:t/ *v.* 改变……的方向

### · A 段 ·

swirling /swɜ:l/ *adj.* 打旋的

devastate /'devəsteɪt/ *v.* 严重破坏

roil /rɔɪl/ *v.* 动荡

tempest /'tempɪst/ *n.* 暴风雨

densely /'densli/ *adv.* 密集地

inhabited /ɪn'hæbɪtɪd/ *adj.* 有人居住的

formidable /'fɔ:mɪdəbl; fə'mɪdəbl/ *adj.* 强大的, 可怕的

### · B 段 ·

susceptible /sə'septəbl/ *adj.* 易受影响的

intervention /,ɪntə'venʃn/ *n.* 干预

thunderstorm /'θʌndəstɔ:m/ *n.* 雷暴雨

cluster /'klʌstə(r)/ *n.* 群, 簇

moisture /'mɔɪstʃə(r)/ *n.* 水分, 水汽

vapour /'veɪpə(r)/ *n.* 水蒸气

condense /kən'dens/ *v.* (气体、蒸汽) 冷凝

precipitation /prɪ,sɪprɪ'teɪʃn/ *n.* 降水

condensation /,kɒnden'seɪʃn/ *n.* 冷凝, 凝结

evaporate /ɪ'veɪpəreɪt/ *v.* 蒸发

invisible /ɪn'vɪzəbl/ *adj.* 看不见的

buoyant /'bɔɪənt/ *adj.* 浮起的

ascend /ə'send/ *v.* 上升

reinforce /,ri:ɪn'fɔ:s/ *v.* 加强

hub /hʌb/ *n.* (系统、活动等的) 中心, 枢纽

spin around 旋转

swiftly /'swɪftli/ *adv.* 迅速地

weaken /'wi:kən/ *v.* 变弱

· C 段 ·

inspire /ɪn'spaɪə(r)/ *v.* 赋……以灵感, 给……以启发

intuition /,ɪntju'ɪʃn/ *n.* 直觉

chaos /'keɪɒs/ *n.* 宇宙的混沌状态

long-range /'lɒŋ reɪndʒ/ *adj.* 长期的

compound /kəm'paʊnd/ *v.* 加剧

intentionally /ɪn'tenʃənəli/ *adv.* 有意地

steer /striə(r)/ *v.* 控制

remote-sensing /rɪ'məʊt 'sensɪŋ/ *adj.* 遥感的

· D 段 ·

exploit /ɪk'splɔɪt/ *v.* 利用

adjust /ə'dʒʌst/ *v.* 调整

robust /rəʊ'bʌst/ *adj.* 强大的

atmospheric /,ætməs'ferɪk/ *adj.* 大气的, 大气层的

generate /'dʒenəreɪt/ *v.* 产生

artificial /,ɑ:tɪ'fɪʃl/ *adj.* 人工的

· E 段 ·

alteration /,ɔ:ltə'reɪʃn/ *n.* 改变

grid /grɪd/ *n.* 网格

noteworthy /'nəʊtwɜ:ði/ *adj.* 显著的

redirection /,rɪ:də'rekʃn; ,rɪ:da'rekʃn/ *n.* 改道

variable /'veəriəbl/ *n.* 变量

substantial /səb'stænʃl/ *adj.* 很大程度的

track /træk/ *n.* 足迹

due /dju:/ *adv.* 正向, 正对着

· F 段 ·

panel /'pænl/ *n.* 面板

photovoltaic /,fəʊtəʊvɒl'teɪk/ *adj.* 光电的

beam /bi:m/ *v.* 发送

molecule /'mɒlɪkjʊ:l/ *n.* 分子

vibrate /vaɪ'reɪt/ *v.* (使) 振动

· G 段 ·

abate /ə'beɪt/ *v.* 减弱

exquisitely /ɪk'skwɪzɪtli; 'ekskwɪzɪtli/ *adv.* 精确地

silver iodide 碘化银

deprive /dɪ'praɪv/ *v.* 剥夺

multiply /'mʌltɪplaɪ/ *v.* 大大增加

# Test 2

## Reading Passage 1. The Innovation of Grocery Stores

### 文章结构

体裁	说明文
主要内容	本文主要介绍了杂货店由最初人工模式发展到如今自助模式的演变过程。
结构	A 段：杂货店最初的购物模式。 B 段：Clarence Saunders 首次提出自助服务的设想。 C 段：将设想付诸实践：创建商店批发合作社及其布局。 D 段：创建第一家真正意义自助模式的杂货店 Piggly Wiggly。 E 段：Piggly Wiggly 连锁店的迅猛发展。 F 段：Clarence Saunders 的主要成就。

### 题目详解

#### Questions 1-5

#### 思路

本部分为段落信息配对题，为雅思阅读题型中难度最大的细节题之一，要求将细节信息与其对应的段落进行匹配。该题型出题顺序为乱序（即不按文章的段落顺序出题），一般有两种呈现形式：一种是每个段落只选一次；另一种是出现“**NB** You may use any letter more than once”这种提示语，即某个段落可能要重复选。显然，该题属于第二种。

具体解题思路为：阅读所有题干信息，画出可以帮助定位的关键词（一般以名词、核心动词或形容词为主，是题干核心意思的浓缩）。带着关键词回到原文，依照段落顺序扫读，读完一段，在题干中找寻一条对应的细节信息。必要时进行同义替换。

## 解答

1. 题干：Clarence Saunders 商店的布局。关键词 layout。
2. 题干：提到了连锁店减少了人力的支出。关键词 chain stores、labour costs。
3. 题干：Clarence Saunders 的想法如何实施的。关键词 idea、how...been carried out。
4. 题干：Clarence Saunders 的商店开设之前人们的购物模式。关键词 before Clarence Saunders' stores opened。
5. 题干：描述了 Clarence Saunders 的商店带来了经济效益。关键词 economic success。

在画完题干的 key information 之后，我们依据原文顺序从 A 段开始扫读，重点扫读每段第 1—2 句及其最后 1 句，快速扫读细节描述。

**A 段：**这一段主要描述了 20 世纪初美国杂货店早期的运营模式（这时 Clarence Saunders 商店还未出现）。接着段落的末尾承上启下：虽然这种杂货店包含了完整的服务，但对于购买者而言费时、效率低下。其中该段的前两句能体现出 how...shop 这个过程，而最后 1 句中的 early chain stores 则体现了 used to 这个含义。该段大意基本对应 4 题的题干，因此，4 题的正确答案为 A。

**B 段：**扫读这一段，发现最后 1 句为核心主旨句，该段主要介绍了 Clarence Saunders 工作的背景，他开始萌芽建立自助服务商店的构想。与各题关键词对照，无对应信息，因此排除。

**C 段：**这一段的开头便提到 Clarence Saunders 将其构想付诸实践，建立了一家商店批发合作社。其中 put his perspective into practice 对应 3 题的题干关键词 idea、how...been carried out。因此，3 题的正确答案为 C。鉴于存在 NB，也就是每一段都有复选的可能，所以继续往下扫读，发现接下来的内容都是在介绍这家合作社的店内布局。其中 divided the store into three different areas 以及 this new shopping design and layout（关键词 layout 重现）都体现出了 1 题题干的关键词 layout。因此，1 题的正确答案为 C。

**D 段：**这一段主要描述了第一家真正意义上的自助服务模式的商店——Piggly Wiggly 的建立以及建立这种模式商店的意义。文末最后两句提到以往商店会雇佣很多劳动力，这占据了一大笔花销，而建立 Piggly Wiggly 这种模式商店的意义在于降低劳动力成本。其中 labour is a major expense 和 the chain stores such as Piggly Wiggly cut the fat 都体现出了 2 题题干的意思。因此，2 题的正确答案为 D。

**E 段：**这一段开头描述了 Piggly Wiggly 建立了很多分店，Clarence Saunders 也因自助服务这个想法获得了专利，也因此建立了更多的连锁分店。紧接着有一堆关于钱的数字出现，提到 Piggly Wiggly 销售额位居全美零售业第三，随后还上市了，股价在不到一年里就翻了一番。所有的这些描述都体现了出了 Clarence Saunders 连锁商店经济上所取得的巨大

成功。这一描述对应 5 题的题干，因此，5 题的正确答案为 E。

至此，所有题目的答案都已选出，剩下那一段没必要再读了，继续做下一道题。

### Questions 6-10

#### 思路

本部分为句子填空题，在雅思考试中难度较低。该题型考查题干缺失的信息在原文中的对应词或词组。解题时先找出题干关键词，回原文定位即可。注意：要求填写字数在题目中会有加粗斜体字提示，不要超出规定字数；句型可能于原文出现改写；要填进来的字词一般情况下不会发生词性甚至单复数的转变，如放在句首，首字母大写。

#### 解答

6. 题干：Clarence Saunders 的第一份工作是在杂货店做什么。空白处需要填写一种职业。通过做之前的题目，大概了解到 B 段通过描述 Clarence Saunders 的工作经历，引出了他后来想法的萌芽。B 段第 1 句中的 work first 对应这道题题干的关键词 first job, as 之后的名词即为答案。因此，本题的答案为 (a) clerk。
7. 题干：在 Clarence Saunders 的商店，人们会在哪里付款。空白处需要填写一个地点名词。这道题考查的是 Clarence Saunders 商店的布局，根据之前的题目，很容易定位到 C 段。这段提到他将商店分成了三个不同的区域，分别带有不同的功能。其中 front lobby 是用作入口、出口和收银台，这里的 checkouts 替换了本题题干中的 pay goods。因此，本题的答案为 front lobby。
8. 题干：顾客在哪里将受到监控。空白处需要一个地点名词。题干关键词为 surveillance, 在原文被替换成了 monitor。文中提到，销售区域的上方是 gallery, 在 gallery 里，监管人员可以在不打扰顾客的情况下对其监控。因此，本题的答案为 gallery。
9. 题干：他商店中的另一区域叫做什么，仅供内部员工使用。空白处需要填写一个地点名称。依据顺序继续读，根据题干 internal staff 定位到 C 段倒数第 2 句。其中 another section 替换了题干 another area, only for...to enter 替换了 only accessible。因此，本题的答案为 stockroom。
10. 题干：Clarence Saunders 的购物设计中，很多工作都是由谁完成的。空白处需要填写一种人物身份。题干关键词为 shopping design, 出现于 C 段的最后，但并未找到相应的答案，依据顺序接着往下读，在 D 段第 2 句提到，Clarence Saunders 商店区别于其他商店最大的特色在于 ...customers in Piggly Wiggly chose the goods on the shelves and paid the items all by themselves. 也就是说顾客在这里需要自助选择商品以及付款。因此，本题的答案为 customers。

## Questions 11-13

## 思路

本部分为单项选择题，是雅思阅读中难度较高的题型之一。该题难点在于部分题目需要对细节进行理解和分析，同时选项可能会出现干扰。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。

## 解答

11. 题干：为什么 Clarence Saunders 在他那个年代想要推动杂货店的改进？题干关键词为 why、propel the improvement of grocery stores。通过对文章的了解，B 段提到了 Clarence Saunders 的工作经历，他观察到人们购物十分不便，不但浪费时间还浪费钱。因此，他提出了一个前所未有的解决方案，即创建新的购物模式。这与 C 选项不谋而合。其中原文 innovation、proposed an unprecedented solution 替换了题干中的 propel the improvement of grocery stores。因此，本题的答案为 C。
12. 题干：关于 Piggly Wiggly 商店的正确描述是哪个？题干关键词为 Piggly Wiggly，据此定位到 D 段和 E 段。这两段都是关于 Piggly Wiggly 的描述，而此题的定位词不能起到精确定位的作用，需要扫读的内容比较多。文中提到，与别的杂货店不一样，Piggly Wiggly 这种杂货店是顾客自己挑选所需要的物品，自己付款，这也它最主要的特征。这一表述与选项 B 的意思相吻合。选项 A：D 段开头提到第一家 Piggly Wiggly 店是在 Memphis, Tennessee 建立，但后来又有很多分店和经销分店，所以描述不够准确。选项 C：原文并未提及。选项 D：同样在 D 段出现了一句话，即 Self-service was optimistic for the improvement 以及 E 段提到这种模式的店铺创造了很多经济效益，开的店铺数量越来越多，这都说明 D 选项描述错误。因此，本题的答案为 B。
13. 题干：如今，跟 Clarence Saunders 相关的主要事迹是什么？原文最后一段描述了 Clarence Saunders 对后人的影响，他最大的贡献就是建立了 Piggly Wiggly 自助服务连锁模式，这对后代影响深远。其中 mainly symbolised 体现了 C 选项中的 was usually connected with。因此，本题的答案为 C。

## 参考译文

## The Innovation of Grocery Stores

## 杂货店的创新

- 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 20 世纪初，美国的商店为人们提供各种服务：顾客向柜台后的人（也就是店员）要他们喜欢的物品，然后店员会将其包好。为了节省时间，人们会在去商店前将所需物品的清单由送货

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 age of 14 in 1895 to work firstly 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

员或自己送到商店,之后再去付钱。在商店中,一种物品通常只有一个品牌。早期的大西洋和太平洋食品公司(A&P)有种类丰富的商品,但是购物要花费许多时间,十分不便利。

克拉伦斯·桑德斯(Clarence Saunders)出生于弗吉尼亚。1895年,14岁的桑德斯辍学,在一家商店当店员。他在工作时发现人们购买东西十分不便。那时没有电脑辅助,购物的方式显得十分落后。桑德斯认为这种费力的购物方式会花费大量的时间和钱财,所以他带着极大的热情和创新精神,提出了一个前所未有的解决方案,那就是让消费者以自助服务的方式购物,而这可能会引起整个行业的变革。

1902年,桑德斯搬到孟菲斯(Memphis)将他的想法付诸实践,即建立商店批发合作社。他设计了新的商店形式,包括三个不同的区域。“前厅”作为进出口以及结账的地方。“销售区”能够让顾客在走道来回走动,选择自己需要的物品。这样就为店员省去了一些不必要的工作,他们就可以更精心地去摆放走廊和货架上的物品,让顾客看到所有的商品。在销售区上方的走廊中,监管员可以看到消费者的举动

**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. In addition, this new shopping design and layout could **accommodate** more customers to go shopping **simultaneously** and also lead to some **unimaginable** phenomena: **impulse** buying and later super-market.

- 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 Competitive-

而不会干扰他们。“储藏室”是桑德斯设计的只允许工作人员进出的地方,这里放有大型的冰箱以存放需要保鲜的食材。除此之外,这种新型的购物设计和布局可以容纳更多人同时购物,甚至还引发了意料之外的现象:即兴购买和后来的超级市场。

1916年9月6日,桑德斯在美国开启了自助服务的革新,以十字转门为标志的第一家皮格利·威格利超市(Piggly Wiggly)开始营业,它位于田纳西州孟菲斯市的杰弗逊街道79号。在皮格利·威格利超市中,顾客可以从货架上选择自己需要的物品然后自己结账,这一点明显区别于其他商店。顾客不再受到店员的约束,他们可以随意走动,查看物品,亲手购买自己需要的物品。商店的物品都是明码标价,也没有人会强迫顾客购买。事实上,皮格利·威格利超市为顾客带来的最大好处就是省钱。自助服务的形式受到了大量的支持。乔治·T.哈雷(George T. Haley)是纽黑文大学的教授,同时也是国际产业竞争力研究中心的主任,他认为:“自助服务因为成本降低对消费者和供应商而言都有利。如果你了解一下皮格利·威格利和阿尔法·贝塔(Alpha Beta)之前商店的运营方式,就会发现,他们雇佣了一大批店

ness, '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 9 branches in Memphis. Meanwhile, Saunders immediately applied a **patent** for 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** greatly 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**.

员, 而劳动力本身就占据了主要的成本。”皮格利·威格利类的连锁店成功地降低了成本。

皮格利·威格利超市以及此类自助服务的商店在当时迅速发展。在第一年, 桑德斯就在孟菲斯开了 9 家分店。与此同时, 桑德斯很快申请了自助服务概念的专利, 并增加皮格利·威格利的超市连锁店。由于自助服务和连锁店增加, 在 1923 年, 皮格利·威格利商店已增加到近 1300 家。售出价值 1 亿美元 (相当于今天的 13 亿美元) 的物品, 这也使之成为美国第三大商品零售商。之后, 连锁店在纽约证券交易所 (New York Stock Exchange) 上市, 股价从 1922 年底到 1923 年三月翻了一番。桑德斯对这种商店的设计和布局做出了极大的贡献。为了保证人们有序进出, 桑德斯甚至还发明了十字转门来取代普通的入口模式。

克拉伦斯·桑德斯于 1953 年逝世, 留下了大量的遗产, 最主要的还是皮格利·威格利超市。这种超市模式得到了广泛的传播, 并会永久流行。

## 词汇详解

### · 标题 ·

grocery store 杂货店

### · A 段 ·

comprehensive /ˌkɒmpri'hensɪv/ *adj.* 全面的, 综合的

counter /'kaʊntə(r)/ *n.* 柜台

clerk /klɑ:k/ *n.* 售货员

item /'aɪtəm/ *n.* 一件商品

wrap /ræp/ *v.* 包

delivery /dɪ'lɪvəri/ *n.* 递送

intend /ɪn'tend/ *v.* 打算

in advance 提前

time-consuming /'taɪm kɒnsju:mɪŋ/ *adj.* 耗时的

inefficient /ɪnɪ'fɪʃnt/ *adj.* 效率低的

### · B 段 ·

assistance /ə'sɪstəns/ *n.* 帮助

perform /pə'fɔ:m/ *v.* 做

backward /'bækwəd/ *adj.* 落后的

inconvenient /ɪnkən'vi:niənt/ *adj.* 不方便的

mode /məʊd/ *n.* 模式

tremendous /trə'mendəs/ *adj.* 非常的

enthusiasm /ɪn'tʃu:ziæzəm/ *n.* 热情

unprecedented /ʌn'presɪdntɪd/ *adj.* 前所未有的

thorough /'θʌrə/ *adj.* 彻底的

### · C 段 ·

put into practice 付诸实践

perspective /pə'spektɪv/ *n.* 看法

wholesale /'həʊlseɪl/ *n.* 批发

cooperative /kəʊ'ɒpərətɪv/ *n.* 合作性企业

lobby /'lɒbi/ *n.* 大厅

checkout /'tʃekaut/ *n.* (超市里的) 收款台

deliberately /dɪ'lɪbəreɪtli/ *adv.* 故意地; 深思熟虑地

wander /'wɒndə(r)/ *v.* 闲逛

aisle /aɪl/ *n.* (座位间或货架间的) 通道

delicate /'delɪkət/ *adj.* 精致的

browse through 浏览

supervisor /'su:pəvaɪzə(r); 'sju:pəvaɪzə(r)/ *n.* 监督员

monitor /'mɒnɪtə(r)/ *v.* 监控

disturb /dɪ'stɜ:b/ *v.* 干扰

accommodate /ə'kɒmədeɪt/ *v.* 容纳

simultaneously /sɪmlɪ'teɪniəsli/ *adv.* 同时地

unimaginable /ˌʌnɪ'mædʒɪnəbl/ *adj.* 难以想象的

impulse /'ɪmpʌls/ *adj.* 一时心血来潮的

### · D 段 ·

feature /'fi:tʃə(r)/ *v.* 以……为特征

turnstile /'tɜ:nstɑɪl/ *n.* 十字转门

distinct /dɪ'stɪŋkt/ *adj.* 有区别的

at the mercy of 受……支配

price /praɪs/ *v.* 将……定价

optimistic /ˌɒptɪ'mɪstɪk/ *adj.* 乐观的

improvement /ɪm'pru:vmənt/ *n.* 改进

retailer /'ri:teɪlə(r)/ *n.* 零售商

### · E 段 ·

soar /sɔ:(r)/ *v.* 急剧增加

patent /'pætnt; 'peɪnt/ *n.* 专利

franchise /'fræntʃaɪz/ *v.* 出售……的特许经

营权

employment /ɪmˈplɔɪmənt/ *n.* 使用

company listing 公司上市

double /ˈdʌbl/ *v.* 翻倍

contribute /kənˈtrɪbjʊt; ˈkɒntrɪbjʊt/ *v.* 做出贡献

layout /ˈleɪaʊt/ *n.* 布局

replace /rɪˈpleɪs/ *v.* 取代

· F 段 ·

abundant /əˈbʌndənt/ *adj.* 丰富的

legacy /ˈlegəsi/ *n.* 遗产

symbolise /ˈsɪmbəlaɪz/ *v.* 象征

spread /spred/ *v.* 传播

extensively /ɪkˈstensɪvli/ *adv.* 广泛

permanently /ˈpɜːmənəntli/ *adv.* 永久地

## Reading Passage 2. The Study of Chimpanzee Culture

### 文章结构

体裁	说明文
主要内容	本文从黑猩猩文化研究的现状出发, 讲述了该研究的历史、现行的研究方法、存在的问题以及改进办法。
结构	A 段: 研究人员提出了黑猩猩文化的概念。 B 段: 黑猩猩文化的研究对人类的启发。 C 段: 两项重要的黑猩猩研究。 D 段: 研究的发现。 E 段: Jane Goodall 的研究揭示了黑猩猩的行为符合文化的定义。 F 段: 黑猩猩文化对其自身的意义: 当前处境。 G 段: 黑猩猩文化对其自身的意义: 改变人类观念。 H 段: 当前研究包含了严重的缺陷。 I 段: 详细阐述三大缺陷。 J 段: 为了解决缺陷而使用的新方法。 K 段: 详述新方法: 对黑猩猩的文化行为分类。

### 题目详解

#### Questions 14-18

#### 思路

本部分为段落信息配对题, 为雅思阅读题型中难度最大的细节题之一, 要求将细节信息与其对应的段落进行匹配。该题型出题顺序为乱序(即不按文章的段落顺序出题), 一般有两种呈现形式: 一种是每个段落只选一次; 另一种是出现“**NB** You may use any letter more than once”这种提示语, 即某个段落可能要重复选。显然, 该题属于第一种, 且由于段落较多, 所以难度较大。

具体解题思路为: 首先, 阅读所有题干并画出可以帮助定位的关键词(一般以名词、核心动词或形容词为主, 是题干核心意思的浓缩)。然后, 带着关键词回到原文, 依照段落顺序扫读, 读完一段, 在题干中找寻一条对应的细节信息。必要时进行同义替换。

本题我们通过画出各个题干的关键词, 发现这部分题目考查的细节信息集中于这篇文章的后半部分, 即讲到人类对大猩猩保护态度的转变、现存研究方法存在的问题、原因及解决办法, 宏观上推断出重点扫读的范围, 再带着各个题干的键信息去微观寻找细节。

### 解答

14. 题干：一种只基于官方来源的大猩猩文化研究方法。题干中的关键词为 an approach、only based on、official sources，通过 an approach to research 可锁定 H 段开头 “How did...perform the...survey...?” 和结尾。扫读发现该段提到尽管进行了多年的研究，但存在一个致命的缺陷，那就是这些研究往往仅依赖于各个研究基地官方公布的行为记录。其中原文 solely relied upon 同义替换了题干 only based on，officially published accounts 对应 official sources。因此，本题的答案为 H。
15. 题干：提到两位科学家为了解决问题设计了一个新体系。从篇章结构来看，H 段和 I 段分别阐述的是目前研究存在的问题及其原因。那么研究的问题如何解决呢？在接下来的 J 段第 1 句提到 “To tackle these problems, my colleague and I determined to take a new approach.” 即两个科学家为解决这些问题采取了一种新的方法，其中原文 to tackle these problems 同义替换了 to solve the problem，a new approach 对应 a new system。因此，本题的答案为 J。
16. 题干：之前对猿类文化的研究有问题的原因。本题和上一道题的考点略有重复，在做上一题时，就可以判断原因所在段落为 I 段，而且 H 段最后一句 “But this approach probably neglects a good deal of cultural variation for three reasons” 也有所提醒。因此，本题的答案为 I。
17. 题干：对于观察和搜集到的数据的新分类。题干中的关键词为 classification。做完前面几道题之后我们知道采取的新方法是整理出了一个文化行为列表，接着往后读就可知道，科学家将这个列表发给了各个基地的组长，他们对当地猩猩的行为进行了分类。原文 classified 同义替换了 classification，随后跟的就是具体的分类办法。因此，本题的答案为 K。
18. 题干：一个事例展现了动物的悲剧结果导致了当地人对动物保护态度的转变。文中只有 F 段谈到了对于猩猩本身的影响，最后提到了对于猩猩的大量猎杀不仅危害它们本身，还破坏了独特的猿类文化。接着往下读，G 段第 2—3 句暗示出 videotapes altered the attitudes of some local people。其中原文 altered the attitudes of some local people 对应题干 a change in local people's attitude。因此，本题的答案为 G。

### Questions 19-23

### 思路

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节信息与原文信息的关系。在解题时，根据题干中的关键词找到原文中相关的同义替换词：如果题干与原文表述的信息一致，答案为 TRUE；如果题干与原文表述的信息矛盾，答案为 FALSE；如果题干信息在原文中并未出现或并不矛盾，答案为 NOT GIVEN。

## 解答

19. 题干：研究发现科学家可以让黑猩猩掌握和人类一样复杂的文化。原文开头 A 段提到了研究人员研究猩猩跟人类的相似性，随后在最后一句提到 “it turns out that the rich and varied cultural traditions chimpanzees enjoyed rank secondly in complexity only to human traditions”，意思是说研究表明，黑猩猩所拥有的文化传统复杂性仅次于人类的传统。但并未提及是否科学家可以让黑猩猩掌握跟人类一样复杂的文化。因此，本题的答案为 Not Given。
20. 题干：人类和猿类很久以前就一直居住在一起，大部分的基因相似。C 段开头便提到 “Although we know that Homo sapiens and Pan Troglodytes have coexisted for hundreds of millennia and their genetic similarities surpass 98 per cent...”，其中 Homo sapiens 指的是人类，Pan Troglodytes 则指黑猩猩，二者确实共同存在数十万年，而且基因相似度超过 98%。因此，本题的答案为 True。
21. 题干：甚至 Toshisada Nishida 和 Jane Goodall 的早期研究也发现了黑猩猩文明行为的许多令人惊讶的特征。本题采用人名定位法再合适不过，C 段第 2 句提到这两个人开启了他们在坦桑尼亚的研究。接着在 D 段开头提到 “经过早期的研究……一些重大发现开始浮出水面。研究人员见证了一系列不常见的行为”。其中原文 primary studies 对应题干 beginning studies，unexpected behaviours 对应 surprising features of behaviours，题干与原文信息相符。因此，本题的答案为 True。
22. 题干：与人类一样，黑猩猩也能大部分通过遗传传递文化行为。原文 E 段提到黑猩猩的确会将这些行为代代相传，但是通过学习而非基因遗传。题干与原文描述不一致。因此，本题的答案为 False。
23. 题干：数十年来，研究者通过观察法和非观察法中获得的数据来调查黑猩猩。原文 H 段倒数第 2 句 “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.” 中提到，对黑猩猩的研究方法仅仅是通过各个基地报道的官方公布的行为记录，这里 behaviours reported 等同于题干 observed approaches，原文使用了 solely relied upon，所以没有通过非观察法。因此，本题的答案为 False。

## Questions 24-27

## 思路

本部分为简答题，为雅思阅读题型中比较简单的题型之一，主要考查考生在文章中提取相关信息的能力。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。答案一般为原文原词，不需要考生自己总结或归纳。做题时建议考生先看清题目要求字数，然后阅读题干并画出题干关键词，通过关键词回到原文定位，必要时通过同

义替换确认要填写的答案。

### 解答

24. 题干：是何时开始发现黑猩猩有这些让人意想不到的行为的？通过之前的题目可知，这些意想不到的行为是在两位研究人员的早期研究中发现的，题干问的是何时开始发现的，所以找到这些早期研究最初开始的时间便是找到了最初发现的时间。C 段开头提到 40 年前我们对黑猩猩的行为一无所知，随后指出这一状况在 20 世纪 60 年代发生了改变，因为这个时间段，两位研究人员开始了研究。因此，本题的答案为 in the 1960s。
25. 题干：Toshisada Nishida 和 Jane Goodall 的研究地点在哪个国家？承接上一题，本题答案随后出现，这两名研究员在坦桑尼亚的两个野生基地分别开展了研究。因此，本题的答案为 Tanzania。
26. 题干：黑猩猩在最初的研究中需要适应什么？依照顺序原则，接着往下读，发现 D 段开头提到 “During these primary studies, as the chimpanzees became more and more accustomed to close observation...”，其中原文 primary studies 对应题干 initial study, became...accustomed to 同义替换 get used to，其后名词即为答案。因此，本题的答案为 close observation。
27. 题干：哪一个术语可以用于描述 1973 年 Jane Goodall 发现了不同地区的黑猩猩会使用不同工具这件事？通过时间 1973 和人名 Jane Goodall 定位到原文 E 段第 1 句，随后便出现：She speculated that some variations shared what she referred to as a ‘cultural origin’。其中 what...referred to as（所称的）同义替换了题干 depict，其后所接的名词术语即为答案。因此，本题的答案为 cultural origin。

## 参考译文

### 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 **biolo-**

### 黑猩猩文化研究

研究人员对于黑猩猩与人类的相似之处进行了多年的研究，他们发现这些相似处比近十年来人们意识到的重要得多。例如，在塔伊森林发现的黑猩猩砸坚果的行为不是一个简单的黑猩猩行为，而是一种只在非洲那一片特定区域才存在、为适应环境而产生的行为。生物学家也将这个特点称为黑猩猩文化的一种表达。研究人员常常使用“文化”这个词形容动物的基本

**gists**. 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

行为，比如不同种类的鸣鸟有自己地域性的语言。事实证明，黑猩猩拥有丰富多样的文化传统，它的复杂性甚至仅次于人类的传统。

在过去的两年中，主要研究黑猩猩的调查小组进行了空前的合作，并记录了一些独特的文化模式，包括猩猩对工具的使用以及它们多样的交流形式和社会习俗。这些新发现影响了人类对这些神奇生物的看法。此外，它也改变了我们对于人类独特性的概念，并向我们展示了古老祖先创造文化的杰出能力。

虽然我们知道智人和黑猩猩已共存了数十万年，而且他们的基因相似度高达 98%，但在 40 年前，我们对野生黑猩猩的行为几乎一无所知。在 20 世纪 60 年代，情况开始转变，日本京都大学的利定西田 (Toshisada Nishida) 和英国著名的灵长类动物学家珍妮·古道尔 (Jane Goodall) 开始了他们对野生黑猩猩的研究，研究是在坦桑尼亚的两个野生基地开展的。(古道尔在贡贝的研究站更为出名，因为它是首个该类别的基地；而西田在马哈勒的基地是世界上第二个黑猩猩研究基地。)

经过这些早期的研究，黑猩猩越来越习惯人类近距离的观察，因此，一些

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

重大发现也逐渐浮出水面。研究人员见证了一系列不常见的行为,包括打磨和使用工具、追捕猎物、进食肉类、分享食物以及和其他族群的黑猩猩进行殊死搏斗。

1973年,古道尔记录了贡贝黑猩猩使用的13种工具和进行的8种社交活动,这些都有别于其他地区的黑猩猩群体。古道尔猜测其实一些看似不同的现象都源于她认为的同一种“文化起源”。但古道尔所说的“文化”到底是指什么呢?根据《牛津百科词典》的定义,文化是指“特定时间或人群的风俗……和成就”。人类文化多种多样,涉及技术变化、婚姻习俗、烹饪习惯、神话传说等。当然,动物没有神话传说,但它们的确能够通过互相学习而非通过基因将行为特点一代代沿袭下去。生物学家认为,这就是文化特点的一个最基本的准则,即通过观察对方已有的技能来学习新的能力,并代代相传。

这对黑猩猩本身而言会有什么影响呢?正当我们终于深入地了解这些动物的珍贵时,它们惨遭猎杀。对于大猩猩的这一悲剧我们必须给予高度重视。由于非法捕猎、大量伐木以及本世纪丛林肉的交易,黑猩猩的数量急剧减少,并持续下降。丛林肉交易

**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.

这一情况尤为令人担忧，因为伐木致使公路修到了森林里，从而将野生动物肉，包括黑猩猩肉，远销欧洲。这种毁灭不仅波及动物本身，还破坏了许多独特的猿类文化。

然而，猿类丰富的文化也许会对拯救黑猩猩起到决定作用。例如，对黑猩猩的保护已经改变了一些当地人的态度。保护黑猩猩的组织让人们看了相关的录像，展示了黑猩猩拥有认知能力。一位扎伊尔人看到后表示：“这个黑猩猩和人类太像了，我以后坚决不吃它们的肉了。”

一个由多位黑猩猩专家组成的国际队伍是如何做到最全面的动物调查的？虽然几十年来，一直有专家研究黑猩猩的文化，但有时这些研究因某些缺陷只能以失败告终。到目前为止，大多数记录黑猩猩文化多样性的尝试都完全依赖于官方公布的每个研究点的行为记录。但这种方法可能会忽视大量的文化差异，以下是三点原因。

第一，科学家只能记录在一个特定地点观察到的动物行为，因此对于那些没看到的现象他们无法给出一个列表。然而这就是我们需要了解的信息，即在每个基地有哪些行为是被记录下来

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.

的,而哪些没有。第二,有许多报告只是描述黑猩猩的行为,但并没有记录这个行为有多普遍;这样我们就无法判断一个具体的行为是一种偶发现象还是一种可以作为文化的普遍现象。第三,研究人员对于那些具潜在重要性的黑猩猩行为通常缺少足够的细节描写,这也使得其他地区的科学家难以判断这些行为是否也存在于当地的黑猩猩族群。

为了解决这些问题,我和同事决定采取一种新的方法。我们让每个基地的研究人员列出所有他们认为是当地黑猩猩会有的传统行为。有了这些信息,我们整理出一个包含 65 个候选行为的文化行为列表。

之后我们把这个列表分发给各个基地的组长。他们咨询了自己的同事,并对黑猩猩群落中发生或不发生的每一种行为进行了分类。类别包括通常性行为(至少发生在多数或全部同一年龄或性别健全的大猩猩身上,比如所有成年雄性大猩猩)、习惯性行为(比通常性行为少见,但在一些个体中反复出现)、出现行为(观察到但不是习惯性)、未出现行为(从未观察到)以及未知行为。

## 词汇详解

## · 标题 ·

chimpanzee /tʃɪmpæn'zi:/ *n.* 黑猩猩

## · A 段 ·

resemblance /rɪ'zembləns/ *n.* 相似 ; 相似之处

crack /kræk/ *v.* 叩开

biologist /baɪ'ɒlədʒɪst/ *n.* 生物学家

elementary /ˌelɪ'mentri/ *adj.* 基本的

dialect /'daɪəlekt/ *n.* 方言

songbird /'sɒŋbɜ:d/ *n.* 鸣鸟

complexity /kəm'pleksəti/ *n.* 复杂 ; 复杂性

## · B 段 ·

collaborate /kə'læbəreɪt/ *v.* 合作

unprecedentedly /ʌn'presɪdəntɪdli/ *adv.* 空前地

document /'dɒkjumənt/ *v.* 记录

distinct /dɪ'stɪŋkt/ *adj.* 独特的 ; 明显的

picture /'pɪktʃə(r)/ *n.* 情形

ponder /'pɒndə(r)/ *v.* 仔细思考

uniqueness /ju'ni:kənəs/ *n.* 独特性

extraordinary /ɪk'strɔ:dnəri/ *adj.* 非凡的

## · C 段 ·

coexist /kəʊɪg'zɪst/ *v.* 共存

surpass /sə'pɑ:s/ *v.* 超过

next to nothing 几乎没有

renowned /rɪ'naʊnd/ *adj.* 著名的

primatologist /ˌpraɪmə'tɒlədʒɪst/ *n.* 灵长类动物学家

launch /lɔ:ntʃ/ *v.* 发起

first of its kind 史无前例的

## · D 段 ·

accustomed /ə'kʌstəmd/ *adj.* 习惯的

remarkable /rɪ'mɑ:kəbl/ *adj.* 非凡的

unexpected /ˌʌnɪk'spektɪd/ *adj.* 意外的

fashion /'fæʃn/ *v.* 制造

lethal /'li:θl/ *adj.* 致命的

## · E 段 ·

speculate /'spekjuleɪt/ *v.* 推断

variation /ˌveəri'eɪʃn/ *n.* 变化 ; 变异

encyclopedic /ɪnˌsaɪklə'pi:dɪk/ *adj.* 百科全书般的 ; 知识渊博的

marriage ritual 结婚仪式

culinary /'kʌlɪnəri/ *adj.* 厨房的 ; 烹调用的

trait /treɪt/ *n.* 特点

## · F 段 ·

implication /ˌɪmplɪ'keɪʃn/ *n.* 可能的影响 ( 或后果 )

decimate /'desɪmeɪt/ *v.* 大批杀害

plummet /'plʌmɪt/ *v.* ( 数量、比率、价格 ) 暴跌

trap /træp/ *v.* 设陷阱捕捉

log /lɒg/ *v.* 伐木

bushmeat /'bʊʃmi:t/ *n.* 非洲丛林肉

afield /ə'fi:ld/ *adv.* 在远处

a host of 许多

## · G 段 ·

ape /eɪp/ *n.* 猿

conservation /ˌkɒnsə'veɪʃn/ *n.* 保护 ; 保存

cognitive /'kɒgnətɪv/ *adj.* 认知的

prowess /'praʊəs/ *n.* 杰出的技能

exclaim /ɪk'skleɪm/ *v.* 惊呼, 惊叫

• H 段 •

comprehensive /ˌkɒmpri'hensɪv/ *adj.* 全面的  
delve into 探索

fatal /'feɪtl/ *adj.* 致命的; 毁灭性的

defect /'di:fekt/ *n.* 缺陷, 不足之处

account /ə'kaʊnt/ *n.* 报道

neglect /nɪ'glekt/ *v.* 忽视, 忽略

• I 段 •

extensive /ɪk'stensɪv/ *adj.* 广泛的

transient /'trænzɪənt/ *adj.* 短暂的

routine /ru:'ti:n/ *adj.* 常规的

• J 段 •

tackle /'tækl/ *v.* 解决

suspect /sə'spekt/ *v.* 怀疑

assemble /ə'sembl/ *v.* 收集, 汇集

• K 段 •

occurrence /ə'kʌrəns/ *n.* 出现; 发生

bracket /'brækt/ *n.* 归类; 种类

customary /'kʌstəməri/ *adj.* 通常的; 习惯性的

habitual /hə'bitʃuəl/ *adj.* 习惯性的

## Reading Passage 3. Quantitative Research in Education

### 文章结构

体裁	说明文
主要内容	本文主要讨论了教育中定量研究法的问题、缺陷及改进（如定性研究法的运用）。
结构	第 1 段：对传统的教育研究方法的质疑 + 实验举例。 第 2 段：对其他心理学和教育学研究方法的质疑 + 实验举例。 第 3 段：对以上研究方法的不同意见。 第 4 段：在教育研究中，对定量研究方法的质疑。 第 5 段：在教育研究中，开始出现定性研究。 第 6 段：定性研究的特点：研究现象本质而非验证假设；处理非结构性数据。 第 7 段：定性研究方法专注的领域：教育社会学和评估研究 + 实例。

### 题目详解

#### Questions 28-32

#### 思路

本部分属于人名与观点或事迹配对题，要求将观点或事迹与其对应的人名进行匹配。该题型通常会出现两类范畴：题干为观点或事迹（比如研究发现、发明创造等）；选项为人名（或国名、机构名称等）。通常不以文章顺序出现。

做题时，首先画出题干中的关键信息（浓缩题干大意的名词、动词、形容词或容易定位的词汇），然后在文中找出选项中的大写人名，随后标记每个人名出现附近的所有观点或行为，最后将这些观点或行为与题干的关键信息比对，意思相同的或关键词对应上的即为答案。

#### 解答

28. 题干：一个错误的回答更多地意味着孩子的观点不同，而不是推理能力不足。关键词 a wrong answer、different perspective、incompetence in reasoning。
29. 题干：实验所包含的逻辑推理超出了孩子认知能力的发展。关键词 logical reasoning、beyond children's cognitive development。
30. 题干：还有另外一种解释是孩子们不愿意去遵守游戏规则或者是双方沟通不清。关键词 reluctance to comply with the game rules or miscommunication。
31. 题干：有迹象表明研究中存在一个科学的观察方法。关键词 a scientific observation approach。

**32. 题干：**关于儿童语言发展的实验存在一定的缺陷。关键词 children's language development、a detail of flaw。

在画完题干的键信息之后，我们以人名为定位词，分别去文中寻找各人名出现在文中的位置，并画出他们的实验观点或描述。具体如下：

**A Piaget：**出现于原文第1段。首先提到他做了一个非常著名的实验，要求孩子去比较不同形状容器中液体的体积，在下面的实验结论中提到：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; this was since their cognitive development had not reached the necessary phase. 孩子们无法明白两个容器容量相同，是因为他们认知能力的发展没有达到实验需要的水平。其中 cognitive development had not reached the necessary phase 对应 beyond children's cognitive development。因此，29 题的正确答案为 A。

**B Mehan：**出现于原文第2段及第3段的最后。在第2段，他提出实验对象有可能错误地理解了实验者的观点，扫读发现这句话：The answer is C, but many kids choose D. When asked what the name of the building was, the children responded 'Disneyland'. 这说明孩子们会给出错误的答案。再往下读：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. 其中 wrong answer 在附近多次出现，原文 does not include...a child's lack of reasoning capacity 以及 only records that the children gave a different answer rather than the one the tester expected 对应 28 题题干 more of a child's different perspective than incompetence in reasoning。因此，28 题的正确答案为 B。此外，第2段的开头第1句“The same kinds of criticisms have been targeted to psychological and educational tests”引出下文 Mehan 质疑心理与教育研究的方法，并以儿童实验为例说明这一研究方法存在缺陷。其中 32 题干关键词 language development 重现。因此，32 题的正确答案为 B。

**C Donaldson：**出现于原文第1段及第3段。扫读第1段发现：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. 其中 children were just unwilling to play the experimenter's game, or that they did not quite understand the question asked by the experimenter 和 30 题题干关键词 reluctance to comply with the game rules or miscommunication 为同义替换。因此，30 题的正确答案为 C。

**D Lacey, Hargreaves and Lambert：**出现于原文最后1段。纵观全文，前半部分阐述

了定量研究法和该方法的一些问题，最后两段阐述了定性研究法的特点和优点，而科学的观察方法很有可能出现在定性研究法的描述中。在最后 1 段中，Lacey, Hargreaves and Lambert 人名的附近，文中提到：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. 即研究者主要采取人种学或参与观察的方法，偶尔也收集了一些定量数据，例如在研究学生的友谊模式的实验中。研究者观察课程，采访老师和学生，并充分利用学校对学生的记录。他们花了相当长一段时间在学校进行研究调查，并花了数月收集数据和追踪这些年数据的变化情况。31 题题干的关键词 observation approach 重现。因此，31 题的正确答案为 D。

### Questions 33-36

#### 思路

本部分为句子填空题，为雅思阅读题型中比较简单的题型，主要考查考生在文章中提取相关信息的能力。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。答案一般为原文原词，不需要考生自己总结或归纳。做题时建议考生先看清题目要求字数，然后阅读题干并画出题干关键词，通过关键词回到原文定位，必要时通过同义替换确认要填写的答案。

#### 解答

33. 题干：在 Piaget 的实验中，他要求孩子去区分不同容器中什么的量。空白处需要填写一个不可数名词。通过题干关键词 Piaget、containers 可定位到第 1 段第 2 句：... he asked the children to compare the amount of liquid in containers with different shapes. 其中 compare 替换了题干 distinguish。因此，本题的答案为 liquid。
34. 题干：在 Mehan 的提问中，回答错误的受试者更倾向于回答什么，而不是错误答案 D。通过题干关键词 Mehan、subjects、wrong answer D 很容易定位到第 2 段的中间，其中 responded 替换了题干 answer。因此，本题的答案为 Disneyland。
35. 题干：很多人批评 Piaget 的实验结果，但 Donaldson 认为实验缺陷可以被什么纠正。依据顺序原则，接着往下读，通过人名 Donaldson 定位到第 3 段，文中提到 ...which can be resolved through more rigorous experimentation. 即可以被更多的严格实验纠正。其中 resolved through 对应题干 rectified by。因此，本题的答案为 rigorous experimentation。
36. 题干：Lacey, Hargreaves 和 Lambert 进行的定性研究大多数是在什么地方完成的。根据这三个人名定位到最后 1 段，文中提到：A series of studies conducted by Lacey, Har-

greaves and Lambert in a boys' grammar school, a boys' secondary modern school, and a girls' grammar school..., 从中可以看出大部分研究是在 grammar school 完成的。因此, 本题的答案为 grammar school。

### Questions 37-39

#### 思路

本部分为多选题, 要求从 6 个选项中选择 3 个合适的选项, 在雅思阅读中难度较低。很多时候, 这种题型会比单选题更简单, 因为多选题的各个选项回到原文的定位句不会相隔太远或者说答案在原文中往往是集中出现的。

#### 解答

**37&38&39.** 题干: 下列内容包含了“定性研究”的特征, 哪三个特征是文中作者提到过的?

首先看一下各个选项, 画一下各个选项中的关键词。A 选项: 按照预先定义的一组类别进行编码行为。关键词 coding behaviour、predefined set of categories。B 选项: 把面谈设计成一种轻松的谈话。关键词 interview、easy conversation。C 选项: 在一组封闭的分析类别中使用组织良好的数据。关键词 well-organised data、closed set of analytical categories。D 选项: 在问卷中包含大量的细节而不是大量的数据。关键词 questionnaires、full of details。E 选项: 要求在调查问卷中给出开放式答案。关键词 questionnaires、open-ended answers。F 选项: 记录研究现状并做笔记。关键词 record、researching situation、note-taking。在画完各个选项中的关键词之后, 根据题干关键词 qualitative research 可以定位到原文倒数第 2 段, 这一段全是关于“定性研究”的描述, 所以快速扫读这段话, 与各个选项关键词对比即可, 意思相同或关键词对应上即为答案。第 1 句提到定性研究集中研究教育现象的本质, 而非检验假设。对比各选项, 没有对应信息。第 2 句提到定性研究会处理“非结构化数据”, 在数据收集的过程中不对分析类别进行编码。对比各选项, 发现 C 选项题干中的 closed set of analytical categories 重现, 但 well-organised data 在文中为 unstructured data, 显然意思相反, 因此 C 选项排除。继续往下读, 提到研究者在观察时使用音频或视频设备记录受试者的行为或详细写出开放式字段注释, 而不是根据预先确定的类别对数据进行编码。对比各选项, 发现 D 选项符合前半句的意思, 而 A 选项刚好是后半句的相反意思。因此, D 为正确选项, 排除 A 选项。继续往下读, similarly 说明面试中也是类似上述的情况, 接下来便提到面试官会问各种开放性问题, 而不是预先有答案的问题。其中 E 选项中的 open-ended 重现, 与原文意思一致, 为正确选项。这一段的最后一句总结, 定性访谈更像一个随意的聊天对话。其中 casual conversations 对应 B 选项中的 easy conversation。因此, B 也为正确选项。F 选项中提到记录研究现状, 文中却说的是记录受试者的行为, 信息不对应, 因此排除。因此, 本部分的答案为 B、D、E。

## Question 40

## 思路

本部分为单项选择题，考查文章的主旨，需要对全文的核心进行整体的理解和把握，此题难度相对较低。

## 解答

40. 题干：本文的主旨是什么？这篇文章的标题为“Quantitative Research in Education”，即“教育中的定量研究法”。因此，文章论述的核心一定是围绕定量研究法。A 选项通过对原文的理解，定量研究法并不是最适合教育孩子的方法。B 选项也不是文章表述的重点。D 选项的表述刚好与原文意思相反。只有 C 选项“解释了定量研究的观点和其相关批判观点的特征”比较符合。因此，本题的答案为 C。

## 参考译文

## 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 **ques-**

## 教育中的定量研究法

许多教育研究者都曾立足于这样一个假设，即儿童会经历不同的认知发展阶段，在他们的大脑达到最高形式的认知之前，大脑无法执行最高级的认知操作。比如，其中一名研究者皮亚杰（Piaget）曾做过一个十分著名的实验。在实验中，他要求孩子们比较两个不同形状容器中液体体积的大小。事实上这两个容器的容积相等，但当皮亚杰向儿童展示一个容器中的液体刚好可以倒入另一个容器后，孩子们依然认为其中一个容器的容积更大。皮亚杰由此得出结论，儿童无法理解两个不同形状容器具有相同的体积，因为这个问题需要孩子使用逻辑思考能力，但是他们的认知能力还没有达到更高级的水平。唐纳森（Donaldson）等反对者对这一阐释提出了质疑。他们指出孩子们无法得出正确认知，也许是因为他们不愿意参与到这个实验

**tioned 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.

游戏当中, 抑或许是因为他们不理解实验者提出的问题。这些批评无疑阐述了事实, 但更为重要的是, 它表明了实验同样是人际交往发生的社会情境。而皮亚杰的调查和复制该实验的尝试不仅仅旨在衡量儿童的逻辑思维能力, 还涉及了解儿童对实验说明的理解程度, 以及他们是否愿意遵守实验要求, 其中也包括监测研究人员在传达要求和激励孩子发散思维等方面做得如何等问题。

心理学和教育学实验也受到了同样的质疑。比如米恩 (Mehan) 认为, 受试者可能从不同的角度理解测试问题, 与研究者的意图产生偏差。在一项语言发展测试中, 研究者向儿童展示了一幅中世纪城堡的图片, 上面画了护城河、吊桥、护栏, 另外还有三个声母: D、C 和 G。研究者要求孩子们为“城堡”圈出正确的字母。答案应该是 C, 但是许多孩子选择了 D。当研究者问儿童图中建筑的名字时, 他们都回答了“Disneyland (迪斯尼)”。他们是按照研究人员预期的思路进行推理的, 但却得出了错误的答案。我们无法从错误答案的评分表中断定孩子们缺乏推理能力; 它仅仅表明孩子们给出了与研究者预期不一样的答案。

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',

对于定量研究结果所赖以存在的前提, 我们还会常常对测量方法的权威性产生质疑。一些研究学者(比如唐纳森)认为这些属于实验技术问题, 可以通过更严格的实验技术找到解决方案。相反, 米恩认为这不仅仅是个别实验和测试独有的问题, 它还可能影响同类型研究结果的权威性。

同时, 定量教育研究逻辑中的假设也存在问题, 即可以通过人为或统计改变变量来确定原因。反对者们指出, 定量教育研究没有考虑人类社会生活的本质, 它把人类生活看成是静态的、机械的因果关系。但实际上, 人类社会生活包含复杂的理解和思考过程, 因此定量教育研究无法得出确切的答案。从这个角度而言, 我们无法简单地从因果关系的角度理解人类行为背后的大脑运行模式和机制, 而这种因果关系正是定量研究的核心所在。这也暗示着社会生活的语境是多变而复杂的。

在过去的三四十年间, 人们对定量教育研究的质疑启发了越来越多的教育研究者采用定性的研究方法。一些研究者已经放弃在实验或统计上使用测量和控制变量的研究方法。定性研究方法包括多种形式, 比如人们泛泛地把它称为“人种志方法”“案例研究”“参与观察法”“历史研究法”“非结构化面试”“话语分析”等术语。但总体而

'life history', '**unstructured** interviewing', '**dis-course** 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

言, 它具有以下特点:

定性研究集中探索教育领域中某些现象的本质, 而不在于验证假设。它也包括处理“非结构化数据”, 是指在数据收集过程中不对分析类别进行编码的数据。因此, 研究者在观察时使用音频或视频设备记录受试者的行为或详细写出开放式的观察记录, 而不是根据预先确定的类别对数据进行编码, 而定量研究者在进行“系统观察”时通常会采取这种方法。同样地, 在面谈中, 研究者会问具有开放式答案的问题, 而不是提出比如在邮寄问卷中具有预定义答案的问题。事实上, 定性访谈通常被有意伪装成随意的聊天对话。

数据分析的主要形式包括口头描述和解释, 以及对人类行为的含义和功能的明确解释。量化和统计分析在大多数情况下只起辅助作用。尤其在教育社会学和评价研究这两大教育研究的领域, 对定量研究方法的批判和对定性研究方法的支持尤为突出。20 世纪 60 年代, 拉塞 (Lacey)、哈格里夫斯 (Hargreaves) 和兰伯特 (Lambert) 分别在英国一所男子文法学校、男子中学现代学校和女子文法学校进行了一系列研究, 这标志着教育社会学领域

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.

定性研究的开端。研究者主要采取人种学或参与观察的方法,偶尔也收集了一些定量数据,例如在研究学生的友谊模式的实验中。研究者观察课程,采访老师和学生,并充分利用学校对学生的记录。他们花了相当长一段时间在学校进行研究调查,并花了数月收集数据和追踪这些年数据的变化情况。

## 词汇详解

### · 标题 ·

quantitative /'kwɒntɪtətɪv/ *adj.* 量化的

### · 第 1 段 ·

assumption /ə'sʌmpʃn/ *n.* 假设

execute /'eksɪkjʊ:t/ *v.* 执行

advanced /əd'vɑ:nst/ *adj.* 高级的

cognitive /'kɒgnətɪv/ *adj.* 认知的

operation /,ɒpə'reɪʃn/ *n.* 操作

capacity /kə'pæsəti/ *n.* 容量

demonstrate /'demənstreɪt/ *v.* 展示

pour /pɔ:(r)/ *v.* 倒

incapable /ɪn'keɪpəbl/ *adj.* 无能力的

question /'kwɛstʃən/ *v.* 质疑

interpretation /ɪn,tɜ:'prɪ'teɪʃn/ *n.* 解释

state /steɪt/ *v.* 说明

implication /,ɪmplɪ'keɪʃn/ *n.* 含意

replicate /'replɪkeɪt/ *v.* 复制; 重做

motivate /'məʊtɪveɪt/ *v.* 激发……的积极性

### · 第 2 段 ·

target /'tɑ:ɡɪt/ *v.* 针对

psychological /saɪkə'lɒdʒɪkl/ *adj.* 心理的

medieval /,medi'i:vəl/ *adj.* 中世纪的

fortress /'fɔ:trəs/ *n.* 堡垒

moat /məʊt/ *n.* 护城河

drawbridge /'drɔ:brɪdʒ/ *n.* 吊桥

parapet /'pærəpɪt/ *n.* 栏杆

consonant /'kɒnsənənt/ *n.* 辅音

reason /'ri:zn/ *v.* 推断

substantive /səb'stæntɪv/ *adj.* 有实质的; 大量的

### · 第 3 段 ·

valid /'vælɪd/ *adj.* 有根据的

resolve /rɪ'zɒlv/ *v.* 解决

rigorous /'rɪɡərəs/ *adj.* 严格缜密的  
 experimentation /ɪkˌsperɪmen'teɪʃn/ *n.* 实验  
 legitimately /lɪ'dʒɪtɪmətli/ *adv.* 合理地  
 jeopardise /'dʒepədaɪz/ *v.* 危害  
 validity /və'lɪdəti/ *n.* 合理性

• 第 4 段 •

statistical /stə'tɪstɪkl/ *adj.* 统计的  
 manipulation /mənɪpju'leɪʃn/ *n.* 操控  
 variable /'veəriəbl/ *n.* 变量  
 static /'stætɪk/ *adj.* 静止的, 不变的  
 determinate /dɪ'tɜːmɪnət/ *adj.* 确定的  
 contextually /kən'tekstʃuəli/ *adv.* 根据上下文

• 第 5 段 •

methodology /ˌmeθə'dɒlədʒi/ *n.* 方法论  
 steer /stɪə(r)/ *v.* 有意避开某人 / 某物  
 loosely /'luːsli/ *adv.* 轻率地  
 illustrate /'ɪləstreɪt/ *v.* 阐明  
 ethnography /eθ'nɒɡrəfi/ *n.* 人种志 ; 民族志  
 unstructured /ʌn'strʌktʃəd/ *adj.* 无组织结构的  
 discourse /'dɪskɔːs/ *n.* 话语

• 第 6 段 •

qualitative /'kwɒlɪtətɪv/ *adj.* 定性的  
 intensive /ɪn'tensɪv/ *adj.* 集中的  
 incline /ɪn'klaɪn/ *v.* 使倾向于  
 code /kəʊd/ *v.* 编码  
 analytical /ˌænə'lɪtɪkl/ *adj.* 分析的  
 postal /'pəʊstl/ *adj.* 邮寄的  
 resemble /rɪ'zembl/ *v.* 像

• 第 7 段 •

verbal /'vɜːbl/ *adj.* 口头的  
 subordinate /sə'bɔːdɪnət/ *adj.* 次要的, 从属的  
 sociology /ˌsəʊsi'ɒlədʒi/ *n.* 社会学  
 intense /ɪn'tens/ *adj.* 剧烈的, 极度的  
 ethnographic /ˌeθnə'ɡræfɪk/ *adj.* 人种志的  
 approach /ə'prəʊtʃ/ *n.* 方法  
 gather /'ɡæðə(r)/ *v.* 收集  
 track /træk/ *v.* 追踪

# Test 3

## Reading Passage 1. Timekeeper : Invention of Marine Chronometer

### 文章结构

体裁	说明文
主要内容	本文介绍了航海时钟的历史发展。
结构	A 段 : 18 世纪的落后状况及问题。 B 段 : 经度的定义与实际测定。 C 段 : 测定家乡时间时遇到的问题。 D 段 : 英国政府设定发明奖励。 E 段 : Harrison 先后发明了塔楼时钟、H1 和 H4。 F 段 : Hadley 发明六分仪。 G 段 : 航海时钟的进一步发展及其历史意义。

### 题目详解

#### Questions 1-5

#### 思路

本部分为段落信息配对题，为雅思阅读题型中难度最大的细节题之一，要求将细节信息与其对应的段落进行匹配。该题型出题顺序为乱序（即不按文章的段落顺序出题），一般有两种呈现形式：一种是每个段落只选一次；另一种是出现“**NB** You may use any letter more than once”这种提示语，即某个段落可能要重复选。显然，该题属于第二种。

具体解题思路为：首先，阅读所有题干并画出可以帮助定位的关键词（一般以名词、核心动词或形容词为主，是题干核心意思的浓缩）。然后，带着关键词回到原文，依照段落顺序扫读，读完一段，在题干中找寻一条对应的细节信息。必要时进行同义替换。

..... 解答 .....

1. 题干：关于哈里森背景的描述。关键词 Harrison、background。
2. 题干：海洋导航落后导致的问题。关键词 poor ocean navigation、problems。
3. 题干：为哈里森提供经济资助的人。关键词 Harrison、financial support。
4. 题干：发明航海钟的长远意义。关键词 sea clock invention、long-term importance。
5. 题干：经度的实际运用。关键词 longitude、practical usage。

在画完题干的 key information 之后，发现个别题干有明显的定位词可以帮助我们定位、缩小扫读的范围，比如第 1 题和第 3 题的人名 Harrison，原文出现这个名字的段落只有 E 和 F 段，所以快速扫读这两个段落。

扫读 E 段，该段开头便提到了 Harrison 这个人的身份（一个自学成才的约克郡木匠）以及为什么参加这个发明比赛（受巨额奖励吸引），对应 1 题关键词 background。因此，1 题的正确答案为 E。扫读 E 段的过程中，我们发现在介绍了 Harrison 的个人背景之后，开始介绍他和弟弟的发明创造，后为了寻求经济资助去了伦敦。他把发明的想法说给了当时的皇家天文学家 Edmond Halley，Halley 便将他引荐给了当时英国一流的钟表匠 George Graham。也是 Graham 在 Harrison 早期的工作中提供了经济援助。其中 financial aid 对应 3 题关键词 financial support。因此，3 题的正确答案为 E。

在做完了第 1 题和第 3 题之后，我们继续依照原文的顺序从 A 段开始阅读，重点扫读各段第 1—2 句、最后 1 句，快速扫读各段细节描述。

**A 段：**第 1 句提到 18 世纪航海定位的落后情况，当时无法精确定位船艘的海上具体位置，后果就是这些船面临失事或用尽粮草的风险。其中 still unable to exactly identify the position at sea 对应 1 题关键词 poor ocean navigation，risks such as the shipwreck or running out of supplies before arriving at the destination 对应关键词 problems。因此，2 题的正确答案为 A。

**B 段：**第 1 句介绍了 longitude 的定义，接下来介绍了如何实际测量 longitude，对应 5 题关键词 practical usage。因此，5 题的正确答案为 B。

到目前为止，只有第 4 题还未选段落。扫读 C 段首尾，这段还是在讲 18 世纪无人能创造一种精确性的时钟。所以才有了 D 段第 1 句，英国政府出资鼓励发明创造。接下来的内容才开始介绍 clock invention：E 段 Harrison 先后发明了塔楼时钟、H1 及 H4；F 段 Hadley 发明了六分仪；G 段的最后 1 句提到了 Thomas Earnshaw 发明了天文钟擒纵机构的最终形式——锁簧式天文钟擒纵机构，并确定了航海天文钟的格式和制作系统，使之真正成为一种现代商业产品并提供了一种稳定且实用的航海模式。这一点对应 4 题的 importance，over the next century and half 对应 long-term。因此，4 题的正确答案为 G。

## Questions 6-8

## 思路

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节信息与原文信息的关系，题目遵循顺序原则。在解题时，根据题干中的关键词找到原文中相关的同义替换词；如果题干与原文表述的信息一致，答案为 TRUE；如果题干与原文表述的信息矛盾，答案为 FALSE；如果题干信息在原文中并未出现或并不矛盾，答案为 NOT GIVEN。

## 解答

6. 题干：理论上讲，船员可以很容易地计算出海上的经度位置。题干关键词为 longitude position、sailors。通过 longitude position 可定位到原文 B 段的倒数第 3 句：Theoretically, knowing the longitude position was quite simple, even for the people in the middle of the sea with no land in sight. 这句话是说，理论上，知道经度位置很简单，甚至对于那些在一望无际的大海中的的人。接下来的两句又说“计算航行距离最关键的地方在于知道当下家乡的时间，但海上的船员如何知道家乡的时间？”从中也可以推断出 the people in the middle of the sea with no land in sight 指示就是 sailors。题干描述与原文一致。因此，本题的答案为 True。
7. 题干：为了精确地计算经度，必须测定月球到某一恒星的距离。题干关键词为 the Moon、the given star、to determine longitude。这些词基本在原文中都原词重现了，定位到 B 段：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. 本题解题的关键在于对这句长难句的理解以及 lunar distance 的理解。我们可以画出这句话的主干：To determine longitude, navigators had to measure lunar distance with the naval sextant. 为了精确地计算经度必须用六分仪测定月角距。什么是月角距？即破折号之前的 the angle between Moon centre and a specific star（月球中心与特定恒星之间的“夹角”），而非题干所说“距离”。因此，本题的答案为 False。
8. 题干：格林尼治时间是由英国航海家设立的。题干关键词为 Greenwich Time、English navigators。通过 Greenwich Time 定位到 B 段 “Greenwich Mean Time was determined”，这里需要注意的是 determine 意为“精确地计算”，往前读，发现格林尼治标准时间是航海家将测量所得的月角距与航海年历对照计算得出的，但并没有提及是谁设立的，更没有提及是哪一国的人设立的。因此，本题的答案为 Not Given。

## Questions 9-14

## 思路

本部分为句子填空题，在雅思考试中难度较低。该题型考查题干缺失的信息在原文中的

对应词或词组。解题时先找出题干关键词，回原文定位即可。注意：要求填写字数在题目中会有加粗斜体字提示，不要超出规定字数；句型可能于原文出现改写；要填进来的词一般情况下不会发生词性甚至单复数的转变，如放在句首，首字母大写。

### 解答

9. 题干：船员们能通过太阳的位置来计算什么。题干关键定位词为 the Sun，据此定位到原文 C 段：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. 括号中的成分是对 the local time 的定语修饰，即当地时间通过太阳的位置来确定。因此，本题的答案为 local time。
10. 题干：能赢得这次比赛的发明，每天最多慢多久。依照顺序原则接着往后读，D 段提到了英国政府出巨资，寻找解决问题的办法。“If timekeeper was the answer (and there could be other proposed solutions, since the money wasn't only offered for timekeeper)”这半句说明，如果时钟的发明能解决上述航海精确性的问题，那么“...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”，即这个时钟的误差需要控制在每天 2.8 秒以内。其中 lose 意为“（钟、表等）慢”，对应 error, no more than 对应 within, every day 对应 a day。因此，本题的答案为 2.8 seconds。
11. 题干：John 和 James Harrison 的钟表没有什么也能精确地计时。题干关键词为 John and James Harrison，据此定位到 E 段开头，改写为 he worked alongside his younger brother James。紧接着便提到：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. 其中 no 对应题干 without。因此，本题的答案为 lubrication。
12. 题干：Harrison 的主要竞争对手的发明是什么。做之前的题时，我们已经知道 F 段主要讲了 Harrison 当时的竞争对手 Hadley。题干的关键词为 main competitor，在原文中被替换为 principal contestant。这个人他发明了 sextant，因此，本题的答案为 (a/the) sextant。
13. 题干：Hadley 的工具用什么来测量船只或飞机的位置。题干关键词为 ships or planes，在 F 段原词重现。不过这里需要理解一下，题干的 instrument 指的是上一题的 sextant。这一题问的就是 sextant 的功用，即 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. 题干 use 对应 measure, to make a calculation of 对应 for a calculation of。因此，本题的答案为 angles。
14. 题干：Harrison 发明的现代版本是什么。本题的难点在于怎么看出来是“modern version”，文中最后一段提到 which turns it into a genuine modern commercial product，可以体现出“现代版本”这个概念，往前看说 Eamshaw 确定了一个叫做 marine chro-

nometer 的最终版本和产品的系统（说明 Harrison 最初发明的航海钟一直不断演变，直至 Earnshaw 的最终版本产生）。因此，本题的答案为 marine chronometer。

## 参考译文

### Timekeeper : Invention of Marine Chronometer

### 计时器：航海天文钟的发明

- 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**,

18 世纪中期，航海家在海上依然无法精确地定位航船的位置，因此他们可能面临各种各样的危险，比如发生沉船事故，或在还未到达目的地之前，航船上的供给已全部用尽。想要获取一个人在地球上的具体位置，需要依靠两个简单但十分关键的坐标，其中一个就是经度。

经度是一个术语，它可以用来测量一个人从家乡到世界上另一个地方的距离，而不受赤道等自然基线的限制。为了精确地计算经度，航海家们别无选择，只能结合月球和某一特定行星的高度，利用航海六分仪去测量它们之间的夹角，即月角距。将该数据与航海年历结合，计算得出格林尼治标准时间。这一标准可以用于计算经度，因为每个时区横跨经度 15 度，时间正好是 1 小时。但不幸的是，这种方法很大程度上依赖于天气条件，这给船员带来极大的不便。因此，人们又提出了另一种方法，即测量家乡时间和本地时间之间的时间差。从理论上讲，即使船员在航行中无法看见陆地，他们也能很容易确定自己的经度位置。现在判断航行距离的关键因素在于确定家乡的时间。但是目前最大的问题是航行在海上的船员如何知道家乡的

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 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**

时间?

一个简单又显然的答案是他在离开家乡时就带好一只精确的时钟,并在离开之前调好家乡时间。比较家乡时间和本地时间(可以通过确定太阳位置判断)可以帮助船员明白两地的时间差,从而算出航行的距离。事实上,在18世纪,没有人能发明一种时钟,它既能经受得住轮船的剧烈摇晃和温度的上下浮动,同时能保持航行时间的准确性。

1714年之后,英国政府想找到一个解决问题的办法,它提供了两万英镑的巨额资金,并由“经度委员会”全权管理。假如时钟是解决问题的办法(可能还有其他的解决措施,因为这些资金不单单用于解决时钟问题),那么为了实现精确测量,需要把时钟的误差控制在每天2.8秒以内,但是对于在海上的时钟和手表而言,即使它们处于最佳状态,这一点也基本无法实现。

这一奖励在如今相当于两百万,正是这份奖励激励了自学成才的约克郡木

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 clock-maker. 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 **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 Lan-

匠约翰·哈里森 (John Harrison), 他尝试设计一款实用的用于航海的时钟。在其早期职业生涯的后半阶段, 他一直和弟弟詹姆斯 (James) 一起工作。他们的第一个大项目是为布罗克尔斯比公园 (Brockelsby Park) 的马厩建造一个塔楼时钟, 这款时钟具有革命性意义, 因为它不需要润滑剂。哈里森在 1730 设计了一个航海时钟, 为了寻求经济支持, 他前往伦敦。他向皇家天文学家爱德蒙·哈雷 (Edmond Halley) 阐述了自己的想法, 哈雷把他介绍给了英国一流的钟表匠乔治·格拉汉姆 (George Graham)。格拉汉姆为他早期制造时钟提供了经济援助。哈里森用了五年时间终于制成了哈里森一号或 H1 号时钟。随后, 他又进行了设计上的改善, 发明了一款外观更巨大的 H4 号时钟。尽管哈里森设计的时钟经得起考验, 但是直到“经度委员会”感到十分满意后, 才给了哈里森应得的奖励。

哈里森当时有一个强有力的竞争者与他争夺这份诱人的奖励, 他是英国数学家约翰·哈德利 (John Hadley), 他发明了六分仪。这是人们用来测量角度的工具, 例如太阳和地平线之间的角度, 用于计算航船或飞机的位置。此外, 他的发明十分重要, 因为六分仪可以帮助确定经度。

这一代发明精密计时钟表的先驱都是英格兰人, 但这并不意味着每一项成就都是英格兰人取得的。兰开斯特人托马斯·恩萧 (Thomas Earnshaw) 是

castrian 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.

历史上一个了不起的人物，他发明了天文钟擒纵机构的最终形式——锁簧式天文钟擒纵机构，并确定了航海天文钟的格式和制作系统，使航海天文钟成为一种真正的现代商业产品，同时成为未来一个半世纪内一种稳定且实用的海上导航。

## 词汇详解

### · 标题 ·

timekeeper /'taɪmkɪ:pə(r)/ *n.* 计时器  
marine /mə'ri:n/ *adj.* 海洋的  
chronometer /krə'nɒmɪtə(r)/ *n.* 精密仪器

### · A 段 ·

navigator /'nævɪɡeɪtə(r)/ *n.* 航海家  
identify /aɪ'dentɪfaɪ/ *v.* 确定  
shipwreck /'ʃɪprek/ *n.* 船只失事  
run out of 耗尽，用完  
coordinate /kəʊ'ɔ:dɪnət/ *n.* 坐标  
longitude /'lɒŋɡɪtju:d/ *n.* 经度

### · B 段 ·

baseline /'beɪsləɪn/ *n.* 基线  
equator /ɪ'kwetə(r)/ *n.* 赤道  
determine /dɪ'tɜ:mɪn/ *v.* 精确地计算  
naval /'neɪvl/ *adj.* 海军的  
sextant /'seksɪtənt/ *n.* (航海仪器) 六分仪  
lunar distance (航海) 月角距  
heavenly body 天体  
nautical /'nɔ:tɪkl/ *adj.* 航海的

almanac /'ɔ:lmənæk; 'ælmənæk/ *n.* 年历，年鉴

crew /kru:/ *n.* 全体船员  
theoretically /,θiə'retɪkli/ *adv.* 理论上

### · C 段 ·

indicate /'ɪndɪkeɪt/ *v.* 表明  
fluctuate /'flʌktʃueɪt/ *v.* 波动  
navigation /,nævɪ'geɪʃn/ *n.* 航海

### · D 段 ·

tremendous /trə'mendəs/ *adj.* 巨大的  
magnificently /mæg'nɪfɪsntli/ *adv.* 宏大地

### · E 段 ·

self-taught /,self 'tɔ:t/ *adj.* 自学成才的  
carpenter /'kɑ:pəntə(r)/ *n.* 木匠  
work alongside 与……一起工作  
turret /'tʌrət/ *n.* 塔楼  
stable /'steɪbl/ *n.* 马厩  
revolutionary /,revə'lʊ:ʃənəri/ *adj.* 革命的  
lubrication /,lu:bri'keɪʃn/ *n.* 润滑油  
in seek of 寻求

astronomer /ə'strɒnəmə(r)/ *n.* 天文学家

royal /'rɔɪəl/ *adj.* 皇家的

alternate /ɔ:l'tɜ:nət/ *adj.* 供替换的

· F 段 ·

principal /'prɪnsəpl/ *adj.* 主要的

contestant /kən'testənt/ *n.* 竞争者

tempting /'temptɪŋ/ *adj.* 吸引人的

calculation /ˌkælkju'leɪʃn/ *n.* 计算

· G 段 ·

forerunner /'fɔ:rʌnə(r)/ *n.* 先驱

escapement /ɪ'skeɪpmənt/ *n.* 擒纵机构

spring /sprɪŋ/ *n.* 弹簧

detent /dr'tent/ *n.* (机械中的) 止动器

genuine /'dʒenjuɪn/ *adj.* 真正的

safe /seɪf/ *adj.* 稳定的

pragmatic /præg'mætɪk/ *adj.* 实用的

Reading Passage 2. The Evolutionary Mystery: Crocodile Survives

文章结构

体裁	说明文
主要内容	本文主要描写了鳄鱼能够在恶劣的环境下生存的原因。
结构	A 段：提出话题：鳄鱼拥有惊人的适应能力。 B 段：鳄鱼的身体特征适合捕食。 C 段：鳄鱼的冷血特性与新陈代谢特性。 D 段：鳄鱼有效的捕食策略。 E 段：鳄鱼的夏眠特性。 F 段：针对鳄鱼夏眠的实验研究。 G 段：鳄鱼夏眠的生理解释。

题目详解

Questions 15-21

思路

本部分为段落标题配对题，要求将各段落与其对应的标题进行匹配。该题型主要考查段落大意与选项信息的匹配。

做题时，首先分析选项并画出关键信息。然后，依照原文顺序扫读文章各段，找出核心句或词，如果没有明显的核心句或词，则需要自己根据上下文概括一下核心大意。最后，对比选项关键信息，选出一个最为恰当的标题。

解答

i	在干旱影响下的有利特征
ii	最近取得的一项难得的发现
iii	新陈代谢慢使鳄鱼成为独特的爬行动物
iv	一个庞大的陆地漫游者的完美身形设计
v	改变饮食习惯和食物摄入量
vi	一个有关特殊机制的研究项目
vii	通过周围环境来调节体温
viii	身体特征为成功的捕食者在水下的活动提供了帮助

- ix 卓越幸存者的历史故事
- x 什么使鳄鱼成为陆地上跑得最快的动物
- xi 鳄鱼与其他动物之间的竞争

15. A 段开头便提到鳄鱼存在了两亿多年,但它们并不原始。根据上下文判断,原因有二。第一,还有比鳄鱼更原始的动物,比如恐龙。相比恐龙,它谈不上原始。第二,鳄鱼能够通过自身的调整来适应环境的剧变,这一点特征很高级。同时代的动物早就灭亡了,唯独鳄鱼存活至今,而且与最初的鳄鱼祖先差别不大,足以说明其强大的适应能力。纵观所有的选项,只有 ix A historical story for the supreme survivors 中有谈到历史相关,而 supreme survivors 这种卓越的幸存者自然指的是鳄鱼。因此,本题的答案为 ix。
16. B 段的第 1 句话就是本段的核心主旨句,主要陈述了鳄鱼的 features,很多生理特征让它成为完美的猎手,包括 streamlined body, long tail, protective armour and long jaws。在所有的选项中,能概括本段的只有 iv The perfectly designed body for a great land roamer。其中 perfectly designed body 就是指本段提到的 features。注意,本题不能选 x What makes the crocodile the fastest running animal on land,因为段中没有说鳄鱼是在陆地上移动最快的生物。因此,本题的答案为 iv。
17. C 段开头第 1 句话介绍了鳄鱼是 poikilothermal animals (变温动物),这种动物共有的特点便是体温会随外界环境的变化而变化。接下来提到鳄鱼相比哺乳动物和鸟类,新陈代谢速度更慢,在恶劣条件下会进一步减缓新陈代谢的速度,达到一年可以不进食的程度,这也使得它比哺乳动物活得更久。这也说明,新陈代谢慢正是鳄鱼区别于其他动物的地方。选项 vii,即环境调节体温这是变温动物的基本特征,不足以概括整段大意。选项 iii Slow metabolism which makes crocodile a unique reptile (新陈代谢慢让鳄鱼们很独特)正好呼应了本段的核心观点。因此,本题的答案为 iii。
18. D 段的第 1 句话是本段的核心主旨句,提出鳄鱼有非常高效的捕猎方式。接下来就是之所以高效的原因。首先说了鳄鱼经常突然袭击猎物,因此成功率颇高。在中后段,又说鳄鱼很成功是因为它们能够改变进食方式或捕食策略,会在水面追击鱼类或捕食鸟类,也会潜伏在水边的灌木丛中等待瞪羚。其中 switching feeding methods 替换选项 shifting eating habits。因此,本题的答案为 v。
19. E 段第 1 句话说太过炎热会导致干旱,但是鳄鱼有种方法保护自己,比如 aestivation(夏眠)。在选项中, i The favourable feature in the impact of a drought (鳄鱼抵抗干旱的有利特征),这里的有利特征就是指“夏眠”。因此,本题的答案为 i。
20. F 段中,讲述了一个由 Kennett 和 Christian 所领导的进行了 6 年的研究,主要是追踪鳄鱼夏眠时的生理特点。选项 vi A project on a special mechanism 中, mechanism 意为“机制,行为方式”,指的就是鳄鱼的“夏眠”行为。因此,本题的答案为 vi。

21. G 段紧接着 F 段的研究内容, 开始描述研究结果。研究发现鳄鱼在夏眠的时候消耗少, 而且损失的营养对其本身没有负面影响。在选项中, ii A unique finding that was recently achieved 最为合适。因此, 本题的答案为 ii。

### Questions 22-27

#### 思路

本部分为摘要填空题, 为概括总结型题目, 在雅思阅读中难度适中。该题型着重考查对原文一段或几段甚至全文的大意补充完整。句与句之间在原文中跨度可能略大, 基本遵循顺序原则 (偶尔会出现乱序), 所以如果关键词处找不到答案, 可向上或向下多读几句。做题时, 先通读摘要, 了解大致内容, 锁定摘要的起始段落。本题通过标题 Aestivation 可定位至文章 E 段。然后画出空白处所在题干的关键词, 回文中寻找相应的描述, 通过同义替换或理解意思确定答案, 答案一般为原文原词。

#### 解答

22. 题干: 在鳄鱼栖息的许多地方, 大多数种类的鳄鱼进化出一种成功的机制, 可以在什么引起的干旱下存活下来。空白处需要填写的是单数名词或名词短语。通过做之前的题目, 我们已经知道这种成功的机制说的就是 aestivation, 通过关键词 drought 可定位至 E 段第 1 句, in many crocodilian habitats 对应题干 in many places inhabited by crocodilians, 从而确定干旱是由 hot season 引起的。另外, 在 aestivation 第二次出现时, F 段开头再次强调了鳄鱼会在 dry season 进入夏眠。因此, 本题的答案为 hot season/dry season。
- 23&24. 题干: ……他们发现夏眠的鳄鱼会在一年中花费大约多长时间不接触什么。第 23 和 24 题在一句话之中, 所以定位回到原文也一定距离很近。本题通过人名 Kennett and Christian 定位到 F 段第 2 句, 这一句提到了一年中近 4 个月不接触水源。其中 nearly 同义替换题干 around, year 原词重现, without access to 同义替换题干 had no access to。因此, 23 题的答案为 four months, 24 题的答案为 water resources。
25. 题干: 体内的水含量与什么成比例减少。原文 G 段开头提及了鳄鱼会消耗自身的水分 (water reserves) 和脂肪, 继续往后扫读, 第 4 句再次提到水分, proportional 替换了题干 proportionately, 与水分一词并列的名词成分应为答案。因此, 本题的答案为 body weight。
26. 题干: 因此, 甚至在夏眠时期, 没有什么和其他损害鳄鱼健康的迹象出现。空白处是与 other health-damaging impact 并列的一种迹象。文中 other harmful effects 替换了题干 other health-damaging impact, 往前寻找与其并列的成分。因此, 本题的答案为 dehydration。
27. 题干: 这一超强的能力帮助鳄鱼忍受恶劣的干旱天气, 却不放缓它们什么的速度。

紧接上一题，答案便出现。原文 rate 为题干 speed 的同义替换，slowing 原文改写为 slowed-down。因此，本题的答案为 growth。

## 参考译文

### The Evolutionary Mystery: Crocodile Survives

### 进化奇迹：鳄鱼的存活

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 **poikilo-**

尽管鳄鱼已经存在了两亿年之久，但它们一点儿都不“原始”。作为鳄鱼的祖先，鳄目开始适应水生的生活方式。当多数同时代的爬行动物灭绝时，鳄鱼能够幸免于难是因为它们的身体发生了改变，更好地适应了环境的变化。恐龙一度是地球的主宰者，而鳄鱼则见证了它们的存亡；甚至在经历了所谓的哺乳类动物占主导的 6500 万年后，鳄鱼仍然存活了下来。现在的鳄鱼和短吻鳄与它们的史前祖先没有太大的不同，这也证明了它们的适应能力从过去到现在一直很强。

鳄鱼最早的祖先大约出现在两亿三千万年前，其具有的许多特点使之成为天然的隐形猎手：流线身型、长长的尾巴、坚硬的鳞甲以及长吻。它们天生四肢短小，趾间有蹼，但这并不影响它们在地面快速爬行。当鳄鱼行动时，速度之快以至于你都没有第二次机会去犯下离它太近的错误，特别是在它们捕猎时。

鳄鱼和其他爬行动物一样，属于变温

**thermal** animals (commonly known as cold-blooded, 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 to **prey** catching. 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

动物(一般称为冷血动物, 体温会随环境温度的变化而变化)。因此, 它们需要时常晒太阳以提升体温。不过太热的时候, 它们更愿意待在水里或阴凉处。与哺乳动物和鸟类相比, 鳄鱼的新陈代谢更慢一些, 这使它们能够更好地应对食物短缺。在最为极端的条件下, 鳄鱼会进一步减缓新陈代谢的速度, 达到一年可以不进食的程度, 这也使得它在相对不稳定的环境中比哺乳动物活得更久。

鳄鱼捕食的效率极高。猎物几乎意识不到水下有鳄鱼的存在, 因为当鳄鱼发现猎物时, 不会发出很大的声响或制造太大的水波。它只是将眼睛露出水面。一旦判定距离足够近, 它们就会张大嘴窜出水面。鳄鱼成功的概率很高, 因为它们会变换进食方式。它们会在水面追击鱼类或捕食鸟类, 也会潜伏在水边的灌木丛中等待瞪羚, 一旦时机到来, 鳄鱼便会向前猛冲, 用强有力的尾巴击倒猎物, 然后将其拖入水中直至猎物溺亡。

在许多鳄鱼的栖息地, 酷热的季节会引发干旱, 进而导致捕食的区域变得十分干燥, 因此, 鳄鱼就会很难调控自己的体温。实际上, 正是这点使得爬行动物得以称雄。例如, 许多鳄鱼

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 crocodilian is 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.

都会通过挖洞藏在泥中来保护自己,不进食不饮水等待数月,直到降雨再次来临。这种静止的状态叫作夏眠。

人们认为大部分鳄鱼会在干旱的季节进入夏眠。肯内特(Kennett)和克里斯琴(Christian)进行了一项为期6年的研究,研究对象是澳大利亚的一种淡水鳄鱼,叫作鳄鱼王(the King Crocodiles),这种鳄鱼每年有4个月的时间潜伏在地下,不接触水源。研究运用双重标记的水来检测它们新陈代谢的速率以及水通量。有几年他们还会每月检测一次等离子的流体样本,基于含氮废物的累积和电解质的浓度来跟踪记录鳄鱼夏眠的状态。

研究发现,鳄鱼新陈代谢的机能缓慢,这会产生排泄物并消耗水和脂肪储备。排泄物会储存在尿液中,使其浓度越来越高。不过血液中排泄物的浓度变化不大,所以鳄鱼才可以维持正常生活。此外,虽然鳄鱼在地下会消耗水分和减少体重,但这种损耗是均衡的;夏眠的动物在复出时既不会脱水,也不会出现像减缓生长等有害影响。鳄鱼能够经受极端的时期和漫长的饥饿而存活下来,两位研究员认为,这种能力很好地解释了为什么鳄鱼一族能够经历漫长历史,存活至今。

## 词汇详解

### · 标题 ·

evolutionary /i:və'lu:ʃənri; ,evə'lu:ʃənri/ *adj.* 进化的  
 mystery /'mɪstri/ *n.* 奥秘 ; 谜  
 crocodile /'krɒkədail/ *n.* 鳄鱼  
 survive /sə'vaɪv/ *v.* 幸存, 活下来

### · A 段 ·

anything but 绝不  
 primitive /'prɪmətɪv/ *adj.* 原始的  
 crocodilia /,krɒkə'dɪliə/ *n.* 鳄目  
 aquatic /ə'kwætɪk/ *adj.* 水生的  
 contemporary /kən'temprəri/ *adj.* 同时代的  
 reptile /'reptail/ *n.* 爬行动物  
 make it 幸免于难  
 rule /ru:l/ *v.* 统治  
 alleged /ə'ledʒd/ *adj.* 所谓的, 号称的  
 mammalian /mæ'meɪliən/ *adj.* 哺乳类动物的  
 wipe off 使灭绝  
 dominance /'dɒmɪnəns/ *n.* 统治地位  
 alligator /'ælɪgeɪtə(r)/ *n.* 短吻鳄  
 incredibly /ɪn'kredəbli/ *adv.* 非常地

### · B 段 ·

come into existence 出现, 存在  
 stealth /stelθ/ *n.* 秘密行动  
 streamlined /'stri:mlaɪnd/ *adj.* 流线型的  
 armour /'ɑ:mə(r)/ *n.* 盔甲  
 jaw /dʒɔ:/ *n.* 颌, 颚  
 webbed /webd/ *adj.* 有蹼的  
 underestimate /ˌʌndər'estɪmeɪt/ *v.* 低估

### · C 段 ·

poikilothermal /,pɔɪkɪləu'θɜ:məl/ *adj.* 变温的  
 metabolism /mə'tæbəlaɪzəm/ *n.* 新陈代谢  
 vulnerable /'vʌlnərəbl/ *adj.* 易受攻击的  
 outlive /ˌaʊt'liv/ *v.* 比……活得长  
 volatile /'vɒlətaɪl/ *adj.* 不稳定的

### · D 段 ·

prey /preɪ/ *n.* 猎物  
 spot /spɒt/ *v.* 发现  
 jerk out 猛地冲出  
 switch /swɪtʃ/ *v.* 转变  
 snatch /snætʃ/ *v.* 夺取  
 waterside /'wɔ:təsaid/ *adj.* 水边的  
 gazelle /gə'zel/ *n.* 小羚羊  
 ambush /'æmbʊʃ/ *n.* 埋伏  
 dash forward 猛冲

### · E 段 ·

dry up 使干涸  
 hunting ground 猎场, 捕食地  
 regulate /'regjuleɪt/ *v.* 调节, 控制  
 consume /kən'sju:m/ *v.* 吃, 喝  
 quiescent /kwi'esnt/ *adj.* 静止的  
 aestivation /,i:stri'veɪʃ(ə)n/ *n.* 夏眠

### · F 段 ·

flux /flʌks/ *n.* 流量  
 plasma /'plæzmə/ *n.* 等离子体  
 keep track of 持续追踪  
 accumulation /ə,kju:mjə'leɪʃn/ *n.* 积累  
 nitrogenous /naɪ'trɒdʒənəs/ *adj.* 氮的, 含氮的

electrolyte /ɪ'lektrolaɪt/ *n.* 电解质  
concentration /ˌkɒnsn'treɪʃn/ *n.* 浓度

## · G 段 ·

urine /'juəriːn/ *n.* 尿  
fluctuate /'flʌktʃueɪt/ *v.* 波动

function /'fʌŋkʃn/ *n.* 功能  
proportional /prə'pɔːʃənl/ *adj.* 成比例的, 均衡的  
dehydration /ˌdiːhaɪ'dreɪʃn/ *n.* 脱水  
harsh /hɑːʃ/ *adj.* 恶劣的, 严峻的

Reading Passage 3. Company Innovation

文章结构

体裁	议论文
主要内容	本文主要论述了公司创新的好处和发展应用。
结构	A 段：通过 Umagic 公司的例子提出问题：小公司创新威胁到大公司。 B 段：现状：企业创新乏力。 C 段：用数据佐证创新的重要性。 D 段：大公司创新困难重重。 E 段：小公司更易于创新。 F 段：大公司的应对之策：内部重组与孵化。 G 段：大公司创新的阻碍因素。 H 段：数据佐证大公司创新的前景。 I 段：对大公司创新前景的不同看法。

题目详解

Questions 28-33

思路

本部分为段落信息配对题，为雅思阅读题型中难度最大的细节题之一，要求将细节信息与其对应的段落进行匹配。该题型出题顺序为乱序（即不按文章的段落顺序出题），一般有两种呈现形式：一种是每个段落只选一次；另一种是出现“NB You may use any letter more than once”这种提示语，即某个段落可能要重复选。显然，该题属于第二种。

具体解题思路为：阅读所有题干信息，画出可以帮助定位的关键词（一般以名词、核心动词或形容词为主，是题干核心意思的浓缩）。带着关键词回到原文，依照段落顺序扫读，读完一段，在题干中找寻一条对应的细节信息。必要时进行同义替换。

解答

28. 题干：留住最佳员工的方法。关键词 best employees、retain。
29. 题干：保护创新观点所花的费用。关键词 expenses、safeguarding...innovative ideas。
30. 题干：整合外部公司所产生的反作用。关键词 integrating outside firms、counter-effect。
31. 题干：以三家著名的美国公司的创新为例。关键词 three famous American companies。
32. 题干：以一家公司转变业务焦点为例。关键词 changing its focus。
33. 题干：以一家公司自己解决财务困难为例。关键词 financial difficulties。

在画完各题干的关键信息之后，发现个别题干有明显的定位词可以帮助我们定位，缩小扫读的范围，比如第 31 题。该题的题干提到三家著名的美国公司。文章中出现的公司名字比较多，但三家公司都是美国的，比较容易定位到 **B 段** 的最后 1 句。显然，这三家公司指的就是 Dell、Amazon 和 Wal-Mart，这三家美国企业已经提出或生产了重塑其产业的概念和产品。因此，31 题的正确答案为 B。由于题干提示语中有 NB 限制，所以对 B 段的其他内容快速扫读，发现该段之前的内容都在阐述商业常青树都喜欢创新。与其他几道题的题干关键词对照，均不对应，因此排除复选的可能。

接下来，我们继续依照原文的顺序从 A 段开始阅读，重点扫读各段第 1—2 句和最后 1 句，快速扫读各段细节描述。

**A 段**：该段主要讲述了 Umagic 创新地让客户咨询各行业名人的在线虚拟版本。与 31 题之外的题干关键词对照，没有对应信息，因此排除。

**C 段**：该段第 1 句提到在过去的 15 年里，《财富》杂志评选出的年度创新企业的前 20%，其股东回报率是同行的两倍之多。由此可以看出，这段主要阐述了创新与经济利益之间的关系。接下来的内容提到，在授权及购买他人的知识产权上所花费的钱也是为了寻求创新点。原文 money spent on licensing and purchasing others' intellectual property 对应 29 题题干 safeguarding expenses on innovative ideas。因此，29 题的正确答案为 C。

**D 段**：该段主要讲述了大企业的创新进入了停滞期，提到企业的规模越大，可能越有碍创新。与剩下的题干关键词对照，没有对应信息，因此排除。

**E 段**：该段的第 1 句为核心主旨句，提到如今，创新思想在大公司之外更容易茁壮成长。随后提到，现在，在小规模资本盛行的背景下，创新者可能会通过自己的力量使创新观点变成商机。随后列举了 Umagic 筹集资金的例子，并指出即使像医药品这样资本密集型企业，企业家也可以进行早期研究，并在面临昂贵和危险的临床试验时将其出售给大企业。由此可推断，小公司在遇到高风险的、昂贵的试验时，就会把风险转嫁给大公司。这也是一种解决财务危机的方法，与 33 题题干意思一致。因此，33 题的正确答案为 E。

**F 段**：该段提到了 General Electric 和 Cisco 等一些大企业在抢占和合并小企业的获得的业绩时，取得了巨大的成功。但是，其他一些商业巨头担心他们必须花大价钱才能收购，也不知道以什么方式管理这些拥有创新观点的天才。其中 keep those geniuses 对应 28 题题干 retain the best employees，甚至该段的最后一句也再一次强调了留住人才的办法。因此，28 题的正确答案为 F。接着往后扫读，发现列举了 Procter & Gamble 公司将其业务中心从拓展跨国业务转移到研发产品上，其中 32 题题干关键词 focus 重现，switching 替换了题干 changing。因此，32 题的正确答案同样为 F。

**G 段**：该段第 1 句提到，一些人认为，这些调整还不够。第 3 句提到，“同类业务竞争”还会危及现有企业，由此可推断，合并之后的新企业会与现有企业形成冲突，这违背了当时的初衷，也就形成了 30 题题干中的 counter-effect。而文中的 cannibalisation 替换了 30 题题干 integrating outside firms。因此，30 题的正确答案为 G。

到目前为止，所有选项的答案都已选出，剩下的 I 段不必再读，可继续做下一题了。

### Questions 34-37

#### 思路

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节信息与原文信息的关系，题目遵循顺序原则。在解题时，根据题干中的关键词找到原文中相关的同义替换词：如果题干与原文表述的信息一致，答案为 TRUE；如果题干与原文表述的信息矛盾，答案为 FALSE；如果题干信息在原文中并未出现或并不矛盾，答案为 NOT GIVEN。

#### 解答

34. 题干：Umagic 是创新领域中最成功的公司。题干的关键词为 Umagic、the most successful innovative。通过 Umagic 定位到原文 A 段，该段多次提及这个名称，扫读发现 Umagic 是一家 up-and-coming 企业，它创建了一个可以让顾客在线咨询虚拟版本名人的网站。后面就开始阐述具体的操作流程，在该段的最后一句再次提到，诸如 Umagic 这样的企业开始威胁到美国的大企业，因为这些新兴的企业把几近疯狂的“创造性”想法作为他们将来的制胜法宝。本题重点在于对 up-and-coming 这个词的理解，该词意为“有望成功的、非常有前途的”，以及该段最后 1 句 as the portal to their triumph in the future，都说明 Umagic 现在尚未成功，但将来有很大可能成功，与题干矛盾。因此，本题的答案为 False。
35. 题干：Amazon 和 Wal-Mart 两家公司交换了创新的经验。通过题干 Amazon 和 Wal-Mart 很容易定位到 B 段倒数第 1 句，这里并没有提到它们是否交换了创新的经验。文中意义与题干的表述既不一致，也不矛盾。因此，本题的答案为 Not Given。
36. 题干：在过去，新想法的持有者已经知道将它带到小公司。题干的关键词为 small companies、in the past，据此定位到 E 段第 2 句，其中 in the old days 替换了 in the past，这句是说在过去，当一个聪明的科学家有创新性的想法并想把它商业化的时候，他会首先去大公司。而题干却说过去便已经知道将新想法带到小公司，显然，题干与原文意思截然相反。因此，本题的答案为 False。
37. 题干：IBM 公司没能理解 Umagic 公司的创新提议。通过题干 IBM 很容易定位到 I 段的中间部分，重点需要理解一下 Umagic 创始人 David Post 所说的话，他曾试图让 IBM 相信他的创新观点，随后转折说，IBM 也可能是正确的。注意此处用的是虚拟

语气,言外之意是 IBM 当时做了一个错误的决定。因此也可以推断,当时 IBM 并没有采纳 David Post 的建议。因此,本题的答案为 True。

### Questions 38-40

#### 思路

本部分为单项选择题,是雅思阅读中难度较高的题型之一。该题难点在于部分题目需要对细节进行理解和分析,同时选项可能会出现干扰。题目遵循顺序原则,也就是说题目顺序与题目答案在原文出现的顺序一致。

#### 解答

38. 题干: C 段中,作者对创新作用的看法是什么? 通过题干 Paragraph C 这一提示快速锁定原文 C 段,并扫读该段的大致内容。这段主要提到了创新与经济利益的关系,其中第 2 句提到,迫切寻求创新想法是新一轮并购热潮的催化剂。由此可见,公司创新对于公司的发展来说越来越重要。因此,本题的答案为 C。
39. 题干: Peter Chernin 对于创新有什么看法? 通过人名 Peter Chernin 很容易定位到 D 段第 3 句。文中提到: 在创造力管理中,规模越大,困难越大。管理 20 部电影的人不可能像管理 5 部电影的人那样具有创造力。由此可以推断出,小规模公司的创新管理更容易,而大公司则比较难。因此,本题的答案为 A。
40. 题干: 文末作者对于创新的观点是什么? 通过 at the end of this passage 直接定位到原文 I 段。在这一段的末尾,作者先是提到了曾说服 IBM 相信自己的创新观点,遭到了拒绝,接着又说这一拒绝可能也有道理。毕竟,创新不像性、教育和健康,它是计算机没法告诉你该做些什么的一个领域。由此可推断,作者本人对创新的看法也是无法确定的。因此,本题的答案为 D。

### 参考译文

#### Company Innovation

#### 企业创新

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 web-sites that enable their clients to seek advice

在曼哈顿市中心一家破旧的办公室里, 30 名 Umagic 公司的人工智能 (AI) 程序员正试图模拟著名的性学家、营养师、健身教练和其他专家的大脑。Umagic 是一家很有前途的企业, 它建立网站, 使客户能够从这些虚拟人物那里寻求建议。用户在该网站输入自身所有信息和目的; 接着 Umagic 系

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 Umagic 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,

统将根据这些向用户提供明星专家给出的建议。尽管美国消费者的焦虑症一直是市场营销的目标,但是 Umagic 的未来很难预测(谁知道未来十年会是什么样子呢?跟电脑咨询你的性生活可能是一件正常也可能是一件疯狂的事)。然而,诸如 Umagic 这样的企业开始威胁到美国的大企业,因为这些新兴的企业把几近疯狂的“创造性”想法作为他们将来的制胜法宝。

创新已经成为美国企业管理的流行语。企业已经意识到,他们正在耗尽可以外包或重新设计的东西(令人担忧的是,他们的竞争对手也是如此)。当今美国企业的赢家往往是具有创新能力的企业,如戴尔(Dell)、亚马逊(Amazon)和沃尔玛(Wal-Mart)等,它们已经提出或生产了重塑其产业的概念和产品。

根据美国理特管理咨询公司(Arthur D. Little)两位顾问的一本新书,在过去的15年里,《财富》杂志年度创新调查中排名前20%的企业的股东回报率达到了同行的两倍。迫切寻求创新想法是新一轮并购热潮的催化剂。这与授权及购买他人的知识产权所用的花费一样。根据来自帕萨迪纳的专利和许可证交易(Pasadena-based Patent & Licence Exchange)的统计数据,美国的无形资产贸易额从1990年的150

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 these 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.

亿美元上升至 1998 年的 1000 亿美元, 小型企业和个人的报酬所占份额越来越大。

这一数据使大型企业感到十分恐慌, 因为它们看上去与创新绝缘。一些以“创新理念”闻名的大企业如 3M、宝洁 (Procter & Gamble) 和乐柏美 (Rubbermaid) 最近都陷入了停滞期。掌管新闻集团 (News Corporation) 福克斯电视 (the Fox TV) 和电影帝国的彼得·谢尔尼 (Peter Chernin) 指出: “在创造力管理中, 规模越大, 困难越大。”管理 20 部电影的人不可能像管理 5 部电影的人那样具有创造力。因此, 即使可能面临更高的开销成本, 他依然想把电影制片厂拆分成更小的部分。

如今, 创新观点更可能产生于小企业中。过去, 当杰出的科学家想出一个新观点并想从中获取利益时, 他首先可能把自己的创新想法拿到大企业去。但现在, 在便宜的风险资本唾手可得的背景下, 他可能会通过自己的力量使创新观点变成商机。到目前为止, Umagic 已经筹集了 500 万美元, 并将继续筹集 2500 万美元。即使像医药品这样资本密集型企业, 创新家也可以进行早期研究, 并在面临昂贵和危险的临床试验时将其出售给大企业。目前约 1/3 的制药企业的总收入来自特许经营技术。

- 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 giants are concerned about the money they have to spend and the way to keep those geniuses who **generated** the ideas. 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 a 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 compete 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 通用电气 (General Electric) 和思科 (Cisco) 等一些大企业在抢占和合并小企业的获得的业绩时, 取得了巨大的成功。但是, 其他一些商业巨头担心他们必须花大价钱才能收购, 也不知道以什么方式管理这些拥有创新观点的天才。在他们的组织内部产生更多想法是每个人的梦想。宝洁公司目前正把整个业务重心从拓展跨国业务转移到研发产品上, 其目标之一是让整个企业接受创新。在其他地方, 对创新的渴求已经引起了对“内部创业精神”的狂热——通过授权并建立内部创新小组以及跟踪库存的方式留住人才。
- 有些人认为这种结构重组是不够的。克莱顿·克里斯坦森 (Clayton Christensen) 在一本新书中辩称, 大企业拥有许多优势, 比如顾及现有客户, 但这会阻碍创新行为, 而创新行为是处理颠覆性技术所必需具备的。这也解释了为什么会出现同类业务互相竞争, 而这一趋势将会危及现有的企业。比如, 美国第一银行成立了分行, 这是一家网上在线银行, 而它实际上与其他实体支行相竞争。
- 不可否认, 创新十分重要。然而, 大企业有必要如此悲观吗? 根据最近一次《行业周刊》对美国 50 家创新企业的调查, 无论是大企业还是小企业都具有创新观点。当风险和回报可被量

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**.

- I Can all the creative destruction, cannibalisation and culture **tweaking** render the big firms more innovative? David Post, the founder of Umagic, **cast doubt on** this issue, 'The only successful intrapreneurs are ones who leave and become entrepreneurs.' He also **recalls** with **glee** the look of **incomprehension** when he tried to **convince** the idea lab of a big corporation such as IBM of his 'virtual experts' idea three years ago—though, he **delightfully** adds, 'of course, they could have been right. Innovation, unlike sex, parenting, or fitness, is one area where a computer cannot tell people what to do.'

化时，大企业在成熟时也可以采纳新的观点。

企业业务拆分、相互竞争和文化调整能使大企业更具创新性吗？Umagic 的创始人戴维·波斯特（David Post）对这个问题表示怀疑，他说：“唯一成功的创业者是那些离开原来的企业、自己出来创业的人。”他还笑着回忆起三年前，当他说说服像 IBM 这样的大企业接受自己“虚拟专家”实验室的想法时，对方那种难以理解的表情。不过，他又高兴地补充说：“当然，他们的观点可能是正确的。创新并不像性、抚养子女或健身那样可以从虚拟专家那里得到建议，这个领域是电脑无法建议人们该做什么的。”

## 词汇详解

### · A 段 ·

shabby /'ʃæbi/ *adj.* 破旧的  
downtown /'daʊntaʊn/ *adj.* 市中心的  
artificial intelligence 人工智能  
mimic /'mɪmɪk/ *v.* 模拟，模仿  
celebrated /'selɪbreɪtɪd/ *adj.* 著名的  
dietitian /,daɪə'tɪʃn/ *n.* 营养师  
fitness /'fɪtnəs/ *n.* 健身  
coach /kəʊtʃ/ *n.* 教练  
bunch /bʌntʃ/ *n.* 伙，群  
up-and-coming /ʌp ən 'kʌmɪŋ/ *adj.* 有望成功的  
virtual /'vɜ:tʃuəl/ *adj.* 虚拟的

objective /əb'dʒektɪv/ *n.* 目的，目标  
neurosis /njuə'rəʊsɪs/ *n.* 焦虑症  
intimidate /ɪn'tɪmɪdeɪt/ *v.* 威胁  
portal /'pɔ:tl/ *n.* (互联网上的) 门户网站

### · B 段 ·

establish /ɪ'stæblɪʃ/ *v.* 使获得认可  
catchword /'kætʃwɜ:d/ *n.* 口号，流行语  
run out of 用完，耗尽  
outsource /'aʊtsɔ:s/ *v.* 外包  
come up with 提出  
reshape /,ri:'ʃeɪp/ *v.* 改变，重塑

## • C 段 •

consultant /kən'sʌltənt/ *n.* 顾问  
 attain /ə'teɪn/ *v.* 获得  
 shareholder /'ʃeəhəʊldə(r)/ *n.* 股东  
 peer /piə(r)/ *n.* 同行  
 desperate /'despəɪt/ *adj.* 极度渴望的  
 hormone /'hɔ:məʊn/ *n.* 荷尔蒙  
 merger /'mɜ:dʒə(r)/ *n.* 合并  
 boom /bu:m/ *n.* 繁荣  
 intellectual property 知识产权  
 intangible /ɪn'tændʒəbl/ *adj.* 无形的

## • D 段 •

terrify /'terɪfaɪ/ *v.* 使非常害怕  
 incompatible /ɪn'kəm'pætəbl/ *adj.* 不相容的  
 dry spells 停滞期  
 disregard /dɪ'srɪ'ga:d/ *v.* 对……置之不理

## • E 段 •

prosper /'prɒspə(r)/ *v.* 兴隆  
 brilliant /'brɪliənt/ *adj.* 极有才智的  
 commercialise /kə'mɜ:ʃəlaɪz/ *v.* 使……商业化  
 pharmaceutical /,fɑ:mə'su:tɪkl; ,fɑ:mə'sju:tɪkl/  
*n.* 药品  
 costly /'kɒstli/ *adj.* 昂贵的  
 clinical trials 临床试验

## • F 段 •

impressively /ɪm'presɪvli/ *adv.* 令人印象深刻地  
 triumphant /traɪ'ʌmfənt/ *adj.* 成功的  
 snatch /snætʃ/ *v.* 夺取  
 incorporate /ɪn'kɔ:pəreɪt/ *v.* 使并入  
 generate /'dʒenəreɪt/ *v.* 产生

switch /swɪtʃ/ *v.* 转向  
 craving /'kreɪvɪŋ/ *n.* 渴求  
 frenzy /'frenzi/ *n.* 疯狂  
 track /træk/ *v.* 追踪  
 inventory /'ɪnvəntri/ *n.* 存货

## • G 段 •

restructure /,ri:'strʌktʃə(r)/ *v.* 重新建构  
 sufficient /sə'fɪʃnt/ *adj.* 足够的  
 existing /ɪg'zɪstɪŋ/ *adj.* 现有的  
 disruptive /dɪs'rʌptɪv/ *adj.* 破坏性的  
 cannibalisation /,kænbəlaɪ'zeɪʃn/ *n.* 同类产品或业务的竞争  
 confront /kən'frʌnt/ *v.* 面临  
 jeopardise /'dʒepədaɪz/ *v.* 危及  
 branch /brɑ:ntʃ/ *n.* (企业或机构的) 分支

## • H 段 •

There's no denying that... 不可否认, ……  
 a big deal 非常重要的事  
 pessimistic /,pesɪ'mɪstɪk/ *adj.* 悲观的  
 adopt /ə'dɒpt/ *v.* 采纳  
 quantifiable /'kwɒntɪfaɪəbl; ,kwɒntɪ'faɪəbl/  
*adj.* 可计量的

## • I 段 •

tweak /twi:k/ *v.* 稍稍改进  
 render /'rendə(r)/ *v.* 使变得  
 cast doubt on 对……产生怀疑  
 recall /rɪ'kɔ:l/ *v.* 回忆道  
 glee /gli:/ *n.* 高兴  
 incomprehension /ɪn,kəm'pri:henʃn/ *n.* 茫然  
 convince /kən'vɪns/ *v.* 使信服  
 delightfully /dɪ'laɪtəli/ *adv.* 欣然地

# Test 4

## Reading Passage 1. Education Philosophy

### 文章结构

体裁	说明文
主要内容	本文主要介绍了儿童教育理念从无到有的发展历程，并介绍了诸多教育专家思想的传承和改进。
结构	A 段：在 17 世纪，儿童死亡率过高，因此不受父母重视。 B 段：18 世纪的工业化迫使很多儿童开始工作，以减轻家庭的负担。 C 段：从 18 世纪中期起，儿童开始受到重视；John Locke 的现代教育理念的出现。 D 段：在 18 世纪后期至 19 世纪中期，Rousseau 提出的教育理念及 Pestalozzi 的继承和发展。 E 段：Pestalozzi 理论的经典案例——创造性的学习方式被应用在野孩子的教育之中。 F 段：19 世纪中期至 20 世纪，Froebel 幼儿园理论的发展和传播。

### 题目详解

#### Questions 1-4

#### 思路

本部分为段落标题配对题，要求将各段落与其对应的标题进行匹配。该题型主要考查段落大意与选项信息的匹配。解题时需要把握住段落的逻辑结构，分清主次，通常情况下由于同义替换词的缺失，对于词汇和长难句的理解尤为重要。

做题时，首先，分析选项信息并画出关键词。然后，依照原文顺序扫读文章各段，概括出每段的核心大意。最后，对比选项关键词，选出一个最为恰当的标题。需要注意的是，本题的选项多于段落，所以切勿带着选项关键词去原文寻找答案，非但该小标题不属于任何一个段落，还会打乱行文逻辑，给理解造成很大困难。

解 答

- i 不同思想家教育理念的继承和发展
- ii 为什么儿童必须工作以减轻家庭负担
- iii 为什么儿童不受高度重视
- iv 儿童很小便死在医院的解释
- v 现代教育理念的首次出现
- vi 一种创造性学习方法在野孩子身上的应用
- vii 幼儿园概念的产生和传播

1. A 段逻辑清晰, 开头第 1 句阐述了一个可怕的事实: 在 17 世纪 60 年代时, 儿童死亡率非常高。随后介绍了父母应对这种困境的方法: parents avoided making any emotional commitment to an infant, 即避免投入任何情感。该段最后 1 句继续支持倒数第 2 句话的观点, 讲到母亲会把婴儿扔到水沟里, 或者在谈及泡菜时顺带谈及婴儿的死亡, 再次体现了父母对孩子死亡的冷漠。总的来说, A 段的核心大意为儿童死亡率过高, 父母会避免情感上的投入。这一点正是说明了 iii 选项 Why children are not highly valued (为什么儿童不受高度重视)。因此, 本题的正确答案为 iii。
2. C 段开头讲到儿童的生活发生了一个巨大变化, 接下来就讲到了这个变化到底是什么——机器的大量使用致使童工的数量减少, 儿童开始被重视。借此引出下文, 即最早的教育理念出现了, 即倒数第 2 句话提到 John Locke 首次提出了“教育立场”这个概念, 并借此成为“现代教育理论之父”。其中 created the first clear and comprehensive statement of the ‘environmental position’ 和 became the father of modern learning theory 都体现了 v 选项 The first appearance of modern educational philosophy。因此, 本题的正确答案为 v。
3. D 段提到了两位思想家的理论和研究, 其中 Rousseau 主要基于对儿童和成人的大量观察, 研究和比较了儿童的成长特征, 而 Pestalozzi 则在 Rousseau 的基础上主张建立一个情绪健康且自在的家庭式学习环境。其中 He agreed with Rousseau that 也体现出了不同思想家观点的继承, 对应 i 选项 The inheritance and development of educational concepts of different thinkers。因此, 本题的正确答案为 i。
4. E 段开头提到 Victor 是一个在法国南部小村庄俘获的野孩子, 其中 feral 对应选项 vi 中的 wild。此外, 该段后半部分提到一个名叫 Itard 的医生对这个野孩子实施了一个五年教育计划, 并雇用了一名女性照顾他, 营造类似家庭的环境氛围, 试图教他会说话。这与 vi 选项 The application of a creative learning method on a wild kid 相对应。因此, 本题的正确答案为 vi。

**Questions 5-8****思路**

本部分为时间与事件配对题，要求将所发生的事件与其时间进行匹配。解答本题时，可以在文中先画出选项的这三个时间范围，再画出相应时间附近所发生的事件，将其与题干信息进行比对即可，必要时进行同义替换。

就本题而言，18 世纪、19 世纪、20 世纪这三个时间范围分别出现于文中 B 段（D 段也有一处涉及 18 世纪的时间和事件）、C 段（E 段开头有一处涉及 19 世纪的事件；F 段也有两处涉及 19 世纪的时间和事件）和 F 段末尾，找到这些之后，只需依次扫读原文与题干信息进行比对即可。同时，注意题干出现了 NB，说明某个选项会被重复选。

**解答**

5. 题干：需要儿童工作。B 段第 4 句提到由于需要额外的收入来支持家庭开支，所以穷人家庭的孩子需要提早就业，随后还说 7 岁可能就要全天工作。其中 young children...were forced into early employment、work full-time 对应 the need for children to work，本段开头便提到这一现象发生于 18 世纪。因此，本题的答案为 A。
6. 题干：中产阶级的崛起。本题相对容易，题干在文中原词重现，扫读左右，发现这一事件发生于 mid-1800s，即 19 世纪中期。因此，本题的答案为 B。
7. 题干：幼儿园的出现。“幼儿园”这个词只出现在了 F 段，讲到 Froebel 在其 58 岁的时候提出了这个概念，往前扫读发现时间 1840，the invention of kindergarten 对应题干 the emergence of a kindergarten。而且，随后还提到 1852 年，在德国出现了数十所幼儿园，说明幼儿园出现的时间应该在 1840—1852 年，处于 19 世纪。因此，本题的答案为 B。
8. 题干：幼儿园在美国范围内的盛行。在 F 段最后一句提到幼儿园在欧洲发展之后，最终在 20 世纪的美国也得以繁荣发展。因此，本题的答案为 C。

**Questions 9-13****思路**

与 Questions 5-8 类似，本部分属于人名与观点或事迹配对题，要求将观点或事迹与其对应的人名进行匹配。该题型通常会出现两类范畴：题干为观点或事迹（比如研究发现、发明创造等）；选项为人名（或国名、机构名称等）。通常不以文章顺序出现。

做题时，首先画出题干中的关键信息（浓缩题干大意的名词、动词、形容词或容易定位的词汇），然后在文中找出选项中的大写人名（就本题而言，这四个人名分别出现于 D、D、E、F 段），随后标记每个人名出现附近的所有观点或行为，最后将这些观点或行为与题干的关键信息比对，意思相同的或关键词对应上的即为答案。此外，注意题目出现

了 NB, 说明某个选项会被重复选。

### 解答

9. 题干: 这个人没能成功地证实理论。关键词 not successful to prove。  
 10. 题干: 这个人会观察儿童的经历。关键词 observed a child's record。  
 11. 题干: 这个人提到首先要有一种情感上舒适的学习环境。关键词 emotional comfort、a study setting。  
 12. 题干: 这个人认为腐败不是人类本质的特点。关键词 corruption  $\neq$  nature。  
 13. 题干: 这个人某种学校数量的增加负责。关键词 an increase、a type of school。

在画完题干的键信息之后, 我们以人名为定位词, 分别去文中寻找各人名出现在文中的位置, 并画出他们的观点和事迹。具体如下:

**A Jean Jacques Rousseau:** 出现于原文 D 段开头和倒数第 2 句。开头提到他认为人类是“高尚的野蛮人”, 认为人类的本性是天真的、自由的、不腐败堕落的。其中 nature...meaning...un corrupted 对应 12 题关键词 corruption  $\neq$  nature。扫读倒数第 2 句, 发现 Pestalozzi 赞同 Rousseau 的这一观点, 但注意题干问的是“提出腐败堕落不是人性本质的人”, 显然应该是 Rousseau。因此, 12 题的正确答案为 A。继上一题答案出现后往后接着读, 提到 Rousseau 写了一部名为《爱弥儿》的著作, 通过描述一个男孩从婴儿期到成年期的教育经历来传达他的教育理念。后又提到他著书一般会基于对儿童和成年人的广泛观察, 并结合自己童年的记忆。其中 a story of a boy's education from infancy to adulthood 以及 on his extensive observation of children...and on the memories of his own childhood 都反映了 10 题的关键词。因此, 10 题的正确答案为 A。

**B Johan Heinrich Pestalozzi:** 出现于原文 D 段。讲完 Rousseau 之后, 便提到了 Pestalozzi。最后 1 句说, 进一步教育的前提是建立一种情绪健康且自在的家庭式学习环境。其中 emotionally healthy homelike 对应 11 题关键词 emotional comfort, a study setting 对应 learning environment。因此, 11 题的正确答案为 B。

**C Jean Marc Gaspard Itard:** 出现于原文 E 段。他对一个野孩子实施了五年教育计划, 试图教他说话, 但最终也没能实现。其中原文 goal...could never be fully achieved 为 9 题关键词 not successful to prove 的改写。因此, 9 题的正确答案为 C。

**D Friedrich Froebel:** 出现于原文 F 段。这一段的核心词为 kindergarten, 对应 13 题关键词 a type of school。文中提到“幼儿园”这一概念的出现是由 Froebel 提出的, 该段的最后也提到幼儿园数量在不断地增加(关键词 increase 重现), 这一变化与 Froebel 的努力分不开。因此, 13 题的正确答案为 D。

## 参考译文

## 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

## 教育理念

尽管我们并没有确切的关于前工业化时期儿童死亡率的数据统计, 但的确有证据显示, 在 17 世纪 60 年代, 出生 14 天之内的儿童死亡率高达 30%。几乎所有的家庭都会遭受婴儿早夭的打击。正因为父母们意料到会失去一些孩子, 所以他们很难对新生儿投入太多。此外, 为了避免自己受到孩子早逝带来的巨大打击, 他们甚至不会对婴儿倾注任何感情。难怪我们会发现, 母亲会将婴儿扔在水沟里, 或在谈及孩子死亡时还会聊到泡菜。

18 世纪见证了农业经济向工业经济的转变, 这是西方世界发生的重要的社会变革之一。越来越多的人从村庄和小镇迁移到大城市, 过上一种完全不同的生活。之前对小群体的社会支持已不复存在, 取而代之的是一些残酷的问题, 例如贫穷、犯罪、低劣的住房及疾病等。由于需要额外的收入来维持家庭开支, 贫困家庭的孩子很小就被迫开始打工, 他们的童年也因此悲惨且短暂。7 岁大的孩子可能就要整天劳动, 面临恶劣且不健康的环境, 包括在工厂做工或是去卖淫。虽然在大多数富裕国家, 这个问题早已不复存在, 但在一些不发达国家, 雇用童工的现象仍大量存在, 且从未完全消失。

**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 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 **inno-**

在 19 世纪的美国, 儿童的生活发生了巨大变化。之前存在大量的体力劳动, 所以无论是农村家庭还是城市家庭的孩子都得参与一些日常工作。不过在 19 世纪中期, 科技不断进步, 中产阶级逐渐兴起, 家庭成员的角色也得到了重新定义, 因此, 工作和家庭逐渐分开。人们开始为孩子购买玩具和书本。由于机器的运用, 无论是在农村还是城市, 孩子都不需要在家劳动了。这个趋势始于工业革命, 并在 19 世纪逐渐强化, 在内战后急剧增长。当时最具影响力的作家之一约翰·洛克 (John Locke) 第一次明确全面地提出“环境立场 (environmental position)”这个概念, 并以此成为现代学习理论之父。在英属殖民地时期, 他有关关爱儿童的学说在美国得到了广泛认可。

让·雅克·卢梭 (Jean Jacques Rousseau) 生活在美国独立战争和法国大革命时期, 他认为, 人在本质上都是“高贵的野蛮人”, 都是天真、自由、不腐

cent, 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 human, but that goal was **quashed** very soon. A young physician Jean Marc Gaspard

败堕落的。1762年,卢梭写了一本著名的小说《爱弥儿》,通过描述一个男孩从婴儿到成年的教育经历,来传达他的教育理念。他的这一作品是基于自己对儿童、成人及其个性的大量观察和他的成长理论,还基于对自己童年的记忆。他从历史以及发展心理学的角度,对比了儿童和成人,并描述了儿童独有的特点。生活于工业革命早期的约翰·海因里希·裴斯泰洛齐(Johan Heinrich Pestalozzi)致力于发展学校以培养儿童的全面发展。他赞同卢梭的观点,认为人性本善,但容易受到社会的影响而腐败堕落。他的教学方法包括一般和特殊的方法。这个理论的前提是建立一个情绪健康且自在的家庭式学习环境,这是进一步教育的先决条件。

关于裴斯泰洛齐理论有一个经典案例,这个案例涉及一个名叫维克托(Victor)的野孩子。1800年人们在法国南部的小村庄发现了他。维克托大概十一二岁,不到青春期,不会说话,而且身体赤裸。人们曾看到维克托在当地居民的花园里搜寻食物,有时他还会接受居民直接给他的食物。后来人们把他带到了巴黎,希望能通过他解答一些关于人性的复杂问题,但这个目标很快就破灭了。一名年轻的医生让·马克·加斯帕尔·伊塔尔(Jean Marc Gaspard Itard)对维克托的未来持乐观

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 certain education which had 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 served as

态度, 他制订了一个五年教育计划来教育维克托并教他说话。政府为此提供补贴, 伊塔尔雇用了一名当地妇女盖琳 (Guerin) 来照顾维克托, 为他制造一个类似家庭的环境。伊塔尔在维克托身上倾注了大量的时间和精力。尽管伊塔尔目标从未完全实现, 维克托最终也说不出一些基本的话语, 但他确实学到了一些交流的基本形式。

虽然其他教育家们也开始意识到卢梭理念中蕴含的简单真理, 但仅仅明确儿童发展的各个阶段还不够。一定要针对这些不同阶段的特定教育。早期的一个例子就是出现了幼儿园, 这个词和它代表的实体都是由德国的教育家弗里德里希·弗勒贝尔 (Friedrich Froebel) 在 1840 年创造的。弗勒贝尔高度重视玩耍在儿童教育中的作用。而他的这一创造在后来也以不同的形式传到了世界各地。弗勒贝尔是在与裴斯泰洛齐合作时受启发萌生了这一想法。他直到 58 岁才提出了幼儿园这一概念, 而那时他已经做了 40 年的老师。幼儿园的概念指的是为那些即将接受严格教育的孩子提供一个安全场所和一种准备。他提出幼儿园教育的基石是引导式或者结构式的玩耍, 因为他相信在这一成长阶段, 玩耍最为重要。玩耍是一种帮助孩子发展各种情绪并实现自我价值的机制。与此同时, 老师会编排一些材料, 营造一种结构式的环境, 进而使孩子们作为个体来实现这些目标。到弗勒贝尔 1852

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.

年逝世时，德国已经建立了十几所幼儿园。而在整个欧洲，幼儿园的数量也在逐渐增加，这个运动最终在 20 世纪的美国得到了极大的发展。

## 词汇详解

### · 标题 ·

philosophy /fə'lɒsəfi/ *n.* 理念

### · A 段 ·

mortality /mɔ:'tæləti/ *n.* 死亡率；死亡人数

premature /'premətʃə(r)/ *adj.* 提早的；早产的

expect /ɪk'spekt/ *v.* 预料

bury /'beri/ *v.* 丧失（亲人）

invest /ɪn'vest/ *v.* 投入（时间、精力）

it is no wonder that... ……不足为奇

gutter /'gʌtə(r)/ *n.* 排水沟

refer to 谈及

with reference to 关于

pickle /'pɪkl/ *n.* 泡菜

### · B 段 ·

witness /'wɪtnəs/ *v.* 见证

transformation /,trænsfə'meɪʃn/ *n.* 转变

agrarian /ə'greəriən/ *adj.* 农用土地的

industrial /ɪn'dʌstriəl/ *adj.* 工业的

vital /'vaɪtl/ *adj.* 至关重要的

ruthless /'ru:θləs/ *adj.* 残酷的

substandard /,sʌb'stændəd/ *adj.* 低于标准的

prostitution /,prɒstrɪ'tju:ʃn/ *n.* 卖淫

staple /'steɪpl/ *n.* 重要部分

### · C 段 ·

drastic /'dræstɪk; 'dra:stɪk/ *adj.* 剧烈的

redefinition /,ri:deɪfɪ'nɪʃn/ *n.* 重新定义

synonymous /sɪ'nɒnɪməs/ *adj.* 密不可分的

exponentially /,ekspə'nenʃəli/ *adv.* 急剧地

### · D 段 ·

savage /'sævɪdʒ/ *n.* 野蛮人

innocent /'ɪnəsnt/ *adj.* 单纯的，天真的

uncorrupted /,ʌŋkə'rʌptɪd/ *adj.* 未腐败的

infancy /'ɪnfənsi/ *n.* 婴儿期

adulthood /'ædʌlθud/ *n.* 成人期

adolescent /,ædə'lesnt/ *n.* 青春期少年

age-specific /age spəsɪfɪk/ *adj.* 限于特定年龄群的

## · E 段 ·

feral /'ferəl/ *adj.* 野的

capture /'kæptʃə(r)/ *v.* 俘获

prepubescent /,pri:pju:'besənt/ *adj.* 青春期的

mute /mju:t/ *adj.* 哑的, 不会说话的

forage /'fɒrɪdʒ/ *v.* 匆忙搜索

profound /prə'faʊnd/ *adj.* 深刻的, 高深的

quash /kwɒʃ/ *v.* 粉碎

initiate /ɪ'nɪʃieɪt/ *v.* 发起

civilise /'sɪvəlaɪz/ *v.* 教化

subsidy /'sʌbsədi/ *n.* 补贴金

recruit /rɪ'kru:t/ *v.* 雇用

assist /ə'sɪst/ *v.* 协助

semblance /'seɪbləns/ *n.* 表象; 假装

elementary /,eli'mentri/ *adj.* 基本的

## · F 段 ·

embed /ɪm'bed/ *v.* 使根深蒂固

be geared towards 使适合

verity /'verəti/ *n.* 真理

notion /'nəʊʃn/ *n.* 概念, 想法

haven /'heɪvn/ *n.* 安全处所

regimented /'redʒɪmentɪd/ *adj.* 受到严格管制的

flourish /'flaʊrɪʃ/ *v.* 繁荣, 兴旺

## Reading Passage 2. How deserts are formed

### 文章结构

体裁	说明文
主要内容	本文主要介绍了沙漠的成因，提到了阻止沙漠化再次发生的办法和现有的解决沙漠化问题的方法，并憧憬了未来新的替代技术。
结构	<p>A 段：沙漠的定义和沙漠的分类。</p> <p>B 段：沙尘暴的形成原理。</p> <p>C 段：人口爆炸对沙漠化的影响。</p> <p>D 段：放牧对沙漠化的影响。</p> <p>E 段：伐木对沙漠化的影响。</p> <p>F 段：战争和政治冲突也会导致沙漠化。</p> <p>G 段：过去为阻止沙漠化重现采取的具体措施。</p> <p>H 段：如今解决沙漠化所带来问题的技术办法及憧憬新的替代技术。</p>

### 题目详解

#### Questions 14-20

#### 思路

本部分为段落信息配对题，为雅思阅读题型中难度最大的细节题之一，要求将细节信息与其对应的段落进行匹配。该题型出题顺序为乱序（即不按文章的段落顺序出题），一般有两种呈现形式：一种是每个段落只选一次；另一种是出现“**NB** You may use any letter more than once”这种提示语，即某个段落可能要重复选。显然，该题属于第二种。

具体解题思路为：阅读所有题干信息，画出可以帮助定位的关键词（一般以名词、核心动词或形容词为主，是题干核心意思的浓缩）。带着关键词回到原文，依照段落顺序扫读，读完一段，在题干中找寻一条对应的细节信息。必要时进行同义替换。

#### 解答

14. 题干：提到了粒子的不规则运动。关键词 particles、irregular movement。
15. 题干：提到了 20 世纪一个多产的农业用地变成了沙漠。关键词 in the 20th century、land → desert。
16. 题干：沙漠的类型。关键词 types。
17. 题干：提到了解决沙漠问题的技术方法。关键词 technical methods。

18. 题干：迁徙对沙漠化的影响。关键词 migration。

19. 题干：科学家们对沙漠化的成因缺乏一致意见。关键词 causes of desertification、scientists、lack of agreement。

20. 题干：描述了农业耕作的致命影响。关键词 farming practice、fatal effects。

在画完题干的 key information 之后，发现个别题干有明显的定位词可以帮助我们定位、缩小扫读的范围，比如第 15 题的关键词 in the 20th century。原文出现这个时间的段落只有 G 段，且定位到了 G 段的第 1 句：In the 20th century, one of the states of America had a large section of farmland that had turned into desert。其中 farmland that had turned into desert 对应 a productive land turning into a desert。因此，15 题的正确答案为 G。由于这一段存在复选的可能性，所以紧接着往下扫读，看是否有其他对应信息。这一段剩下的内容都是在讲过去人们为了阻止沙漠化再次发生所采取的各种措施，但并未体现出 17 题的关键词 technical methods，因此，可以将 G 段排除了。

接下来，依照原文顺序从 A 段开始阅读，重点扫读各段第 1—2 句、最后 1 句，快速扫读各段的细节描述。

**A 段：**第 1 句为沙漠的定义，接下来便提到了沙漠的分类依据，其中 classified in a number of ways 对应 16 题题干的关键词 types。因此，16 题的正确答案为 A。

**B 段：**第 1 句提到了干旱地区沙尘暴频繁，接着说沙尘暴发生的区域以及它具体如何运动。很明显，这一段多次提及 particles 这个词。且 when a steady wind starts to blow、as the wind picks up 和 when they fall onto the ground 这三种情况下，particles 的运动方式都不相同，符合 14 题题干的 irregular movement。因此，14 题的正确答案为 B。

**C 段：**开头第 1 句先是说沙漠化的严重性已经得到了大量宣传，紧接着 but 转折后的内容为该句的主要意思，即学术界就沙漠化的成因从未达成一致意见。其中 19 题题干的关键词 causes of desertification 原文重现，原文 the academic circle has never agreed 对应题干 lack of agreement among the scientists。因此，19 题的正确答案为 C。继续往下读，该段提到了人们对于沙漠化成因的误读及沙漠化形成的主要原因。整个后半部分都在说农业种植对沙漠化形成所产生的影响，比如 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. 大概意思是农作物种植会破坏植被，进而面临风沙侵蚀的后果。其中原文 the raising of most crops 对应 20 题题干关键词 farming practice。因此，20 题的正确答案为 C。

**D 段：**这一段主要讲的是畜牧业对沙漠化形成所产生的影响。这一段的倒数第 2 句提到了游牧民族的生活习惯，接着最后 1 句 ...wherever they move to, the desert follows 是总结，

牧民所到之处便会形成沙漠，体现了 18 题题干 migration 这个关键词。因此，18 题的正确答案为 D。

至此，只有 17 题还没答案。快速扫读 E、F 和 H 段。E 段还是在讲沙漠化的一个原因，即过度伐木，没有提及“技术办法”，可排除；F 段又是讲沙漠化的原因之一，即战争所带来的危害，没有提到措施，可排除；H 段开头便提到了如今采用新技术措施解决沙漠化问题，其中原文 technologies are serving as a method 对应 17 题题干 technical methods，resolve 对应 tackle，且下一句还进行了具体的解释。因此，17 题的正确答案为 H。

### Questions 21-26

#### 思路

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节信息与原文信息的关系，题目遵循顺序原则。在解题时，根据题干中的关键词找到原文中相关的同义替换词：如果题干与原文表述的信息一致，答案为 TRUE；如果题干与原文表述的信息矛盾，答案为 FALSE；如果题干信息在原文中并未出现或并不矛盾，答案为 NOT GIVEN。

#### 解答

21. 题干：在某些地区，很难弄清沙漠在哪里终结。题干的关键词为 where the deserts end、difficult to ascertain。在文章首段的最后，提到了沙漠的界限：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. 其中后半句 no clear-cut borders 体现出了 difficult to ascertain 这个特征。因此，本题的答案为 True。
22. 题干：媒体对沙漠化问题不感兴趣。题干的关键词为 desertification、media、uninterested。文章 C 段第 1 句谈论沙漠化的成因，前半句 There has been a tremendous deal of publicity on how severe desertification can be... 意思是关于沙漠化的严重性媒体已经有了很多宣传。题干 media、uninterested 显然与 There has been a tremendous deal of publicity 矛盾。因此，本题的答案为 False。
23. 题干：沙漠化最常见的原因是缺乏降水。题干的关键词为 lack of rainfall、the most common cause。关键词 rain 出现在了 C 段第 2 句中破折号之后，破折号之前的内容即为题干的考查点：lack of rainfall 对应 a shortage of precipitation，但文中提到这是一种 common misunderstanding。因此，本题的答案为 False。
24. 题干：在半干旱地区饲养动物会增加土壤的侵蚀。题干的关键词为 semi-arid areas、farming animals。文章只有 D 段提到了半干旱地区畜牧业对沙漠化的影响，开头第 1 句说 Livestock farming in semi-arid areas accelerates the erosion of soil and becomes one of

the reasons for advancing desertification. 其中 livestock farming 对应题干 farming animals, accelerate 对应 increase, 说明题干与原文表述一致。因此, 本题的答案为 True。

25. 题干: 亚洲国家的人们不再使用木柴作为主要燃料了。题干的关键词为 in Asian countries、firewood。通过地点 Asian countries 很容易定位到 E 段第 2 句, 这句话提到在亚洲许多国家, 木柴是做饭和取暖的主要燃料, 从而对脆弱的生态系统产生了很大的影响, 但“他们是否继续使用”这一点文中并未提及。因此, 本题的答案为 Not Given。
26. 题干: 研究人类、生畜和沙漠化三者之间关系的技术尚未开发出来。题干的关键词为 technology、has not yet been invented。通过 technology 可定位到 H 段, 这一段第 1 句提到了用于解决沙漠化问题的新技术, 紧接着举例说明, 即人们现在利用卫星来探究人和牲畜对地球所产生的影响。题干所说“技术还未开发出来”显然与原文“已经开始利用卫星技术”矛盾。因此, 本题的答案为 False。

## 参考译文

### 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**

### 沙漠的形成

沙漠主要出现在干旱和半干旱地区, 是指一片贫瘠的土地, 那里几乎没有降水, 那里的环境不适合任何生物的生存。通常, 沙漠的类别按照降雨量总额、每年降雨量天数、温度、湿度及其他一些因素划分。在一些地方, 沙漠有着明显的边界, 以河流、山脉或其他地貌为标志; 而在另外一些地方, 沙漠和其他地貌特征之间并不存在明显的边界。

在没有植被保护的干旱地区, 沙尘暴会频繁发生。沙尘暴大多出现在沙漠边缘, 而不是在沙漠之中, 毕竟那里已经没有什么植被了。当持续的风开始刮起时, 在开阔地上的细小微粒就会开始振动。随着风越来越大, 一些

wind starts to blow, fine **particles** on the open ground will begin **vibrating**. As the wind picks up, some of the particles are lifted into the air. When they fall onto the ground, they hit other particles which will then be **jerked** into the air in their turn, **initiating** a **chain reaction**.

- C There has been a tremendous deal of **publicity** on how severe **desertification** can be, but the academic circle has never agreed on the causes of desertification. A common **misunderstanding** is that a shortage of precipitation causes the desertification—even the land in some barren areas will soon recover after the rain falls. In fact, more often than not, human activities are responsible for desertification. It might be true that the explosion in world population, especially in developing countries, is the primary cause of soil **degradation** and desertification. Since the population has become denser, the **cultivation** of crops has gone into **progressively** drier areas. It's especially possible for these regions to go through periods of severe drought, which explains why crop failures are common. The raising of most crops requires the natural vegetation cover to be removed first; when crop failures occur, extensive **tracts** of land are **devoid** of a plant cover and thus **susceptible** to wind and water **erosion**. All through the 1990s, dryland areas went through a population growth of 18.5 per cent, mostly in severely **impoverished** developing countries.

- D Livestock farming in semi-arid areas **accelerates** the erosion of soil and becomes one of the reasons for **advancing** desertification. In such areas where the vegetation is **dominated**

粒子被吹到空中。当它们落到地面上时, 会撞击其他的粒子, 然后这些其他粒子再次被吹到空中, 进而引发连锁反应。

沙漠化的严重性一直受到广泛关注, 但学术界对沙漠化的成因和过程始终意见不一。一个常见的误读便是降水量的缺乏引起沙漠化——即使是一些贫瘠地区的土地也会在下雨后很快恢复。实际上, 人类活动往往是形成沙漠化的原因。世界人口, 特别是发展中国家人口的激增, 可能是造成土壤退化和沙漠化的主要原因。由于人口越来越密集, 农作物的种植已逐渐扩展至干旱地区。这些地区尤其可能经历严重的干旱期, 这也解释了农作物为什么会经常歉收。大多数作物的种植需要事先移除自然植被; 当作物歉收时, 大片土地上没有植物覆盖, 因此很容易受到风和水侵蚀的影响。整个 20 世纪 90 年代, 旱地地区的人口增长了 18.5%, 主要是在极度贫困的发展中国家。

半干旱地区的畜牧业加速了土壤的侵蚀, 成为进一步沙漠化的原因之一。在自然植被以草为主的半干旱地区, 放牧是一项重要的经济活动。在贫瘠

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

的干旱地区,草对于固定表层土壤十分必要。当一块特定的田地被用来过度放牧时,这里的植被将会减少,土壤将受到严重破坏,使这些表层土壤受到恶劣天气的破坏性侵蚀。数个世纪以来,游牧民族会在任何可以找到牧场的区域放牧牛羊,绿洲也为其生存提供了更多的安定。可以说,这些牧民所到之处,沙漠便会随之而来。

树木对于保持表层土和减缓风速非常重要。在许多亚洲国家,木材是做饭和取暖的主要燃料,这使得他们不断砍伐处于干旱环境下的森林。当太多的树木遭到砍伐时,大风和沙风暴便会发生。

更糟的是,即使是政治冲突和战争也会导致沙漠化。为了逃离入侵的敌人,这些难民会一起逃至地球上这些最为脆弱的生态地区。他们带来了自己的耕作方式,然而这可能并不适合新的定居地。

在20世纪,美国一个州的一大片农田变成了沙漠。从那时起便采取了措施使这种荒漠化现象不再发生。为了避免荒漠化的再次发生,人们应该寻找

desertification will not happen again. To avoid the reoccurring of desertification, people shall find other **livelihoods** which do not rely on traditional land uses, are not as **demanding** on local land and natural resource, but can still generate viable income. Such livelihoods include but are not limited to dryland **aquaculture** for the raising of fish, **crustaceans** and industrial **compounds derived from microalgae**, greenhouse agriculture, and activities that are related to tourism. Another way to prevent the reoccurring of desertification is bringing about economic **prospects** in the city centres of drylands and places outside drylands. Changing the general economic and **institutional** structures that generate new chances for people to support themselves would **alleviate** the current pressures **accompanying** the desertification processes.

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

其他不依赖传统土地用途、对当地土地和自然资源要求不高但仍能产生收入的生计。这些生计包括但不限于旱地水产养殖业(包括养殖鱼类、甲壳类动物和工业化生产微藻化合物)、温室农业和其他一些跟旅游相关的活动。防止沙漠化再次发生的另一个办法是在干旱地区的城市中心和干旱地区以外的地方发展经济。改变一般的经济和体制结构,为人们提供新的自立机会,将会减轻沙漠化目前所带来的压力。

在当今社会,新的技术正用于解决沙漠化所带来的问题。人们一直利用卫星来探究人和牲畜对地球所产生的影响。但这并不是说不需要其他的技术来解决荒漠化所带来的问题及阻止荒漠化的进程。

## 词汇详解

### · A 段 ·

barren /'bærən/ *adj.* 贫瘠的

arid /'ærid/ *adj.* 干旱的

semi-arid /,semi 'ærid/ *adj.* 半干旱的

precipitation /prɪsɪpɪ'teɪʃn/ *n.* 降水

hostile /'hɒstail/ *adj.* (环境和条件等)不利的

inhabit /ɪn'hæbɪt/ *v.* 居住于

classify /'klæsɪfaɪ/ *v.* 分类

boundary /'baʊndri/ *n.* 边界

landform /'lændfɔ:m/ *n.* 地形, 地貌

clear-cut /kliə 'kʌt/ *adj.* 清晰的, 轮廓鲜明的

landscape /'lændskeɪp/ *n.* 地形

### • B 段 •

vegetation /ˌvedʒə'teɪʃn/ *n.* 植被

margin /'mɑ:dʒɪn/ *n.* 边缘

steady /'stedɪ/ *adj.* 稳定的

particle /'pɑ:tɪkl/ *n.* 粒子

vibrate /vaɪ'reɪt/ *v.* 振动

jerk /dʒɜ:k/ *v.* (使) 猛然一动

initiate /ɪ'nɪʃieɪt/ *v.* 使开始

chain reaction 连锁反应

### • C 段 •

publicity /pʌb'lisəti/ *n.* 宣传

desertification /dɪˌzɜ:tɪfɪ'keɪʃn/ *n.* 荒漠化, 沙漠化

misunderstanding /ˌmɪsʌndə'stændɪŋ/ *n.* 误解

degradation /ˌdeɡrə'deɪʃn/ *n.* 退化

cultivation /ˌkʌltɪ'veɪʃn/ *n.* 耕种

progressively /prə'ɡresɪvli/ *adv.* 渐进地

tract /trækt/ *n.* 大片土地

devoid /dɪ'vɔɪd/ *adj.* 缺乏的

susceptible /sə'septəbl/ *adj.* 易受影响的

erosion /ɪ'rəʊʒn/ *n.* 侵蚀

impoverished /ɪm'pɒvərɪʃt/ *adj.* 贫困的

### • D 段 •

accelerate /ək'seləreɪt/ *v.* 使……加快

advance /əd'vɑ:ns/ *v.* 推进

dominate /'dɒmɪneɪt/ *v.* 占据支配地位

anchor /'æŋkə(r)/ *v.* 使固定

topsoil /'tɒpsɔɪl/ *n.* 表层土

dryland /'draɪlənd/ *n.* 旱地

graze /ɡreɪz/ *v.* 放牧

excessive /ɪk'sesɪv/ *adj.* 过度的

herd /hɜ:d/ *n.* 畜群

experience /ɪk'spɪəriəns/ *v.* 经历

coverage /'kʌvərɪdʒ/ *n.* 覆盖范围

trample /'træmpl/ *v.* 践踏

pulverise /'pʌlvəraɪz/ *v.* 粉碎

destructive /dɪ'strʌktɪv/ *adj.* 破坏的

elements /'elɪmənts/ *n.* 恶劣天气

nomad /'nəʊmæd/ *n.* 游牧民

flock /flɒk/ *n.* 畜群

pasture /'pɑ:stʃə(r)/ *n.* 牧场, 草地

### • E 段 •

firewood /'faɪəwʊd/ *n.* 木柴

heating /'hi:tɪŋ/ *n.* 供暖

uncontrolled /ˌʌŋkən'trəʊld/ *adj.* 不受控制的

ecosystem /'i:kəʊsɪstəm/ *n.* 生态系统

### • F 段 •

invade /ɪn'veɪd/ *v.* 侵略, 侵入

refugee /ˌrefju'dʒi:/ *n.* 难民, 避难者

vulnerable /'vʌlnərəbl/ *adj.* 易受伤害的

### • G 段 •

enforce /ɪn'fɔ:s/ *v.* 实施

livelihood /'laɪvlihud/ *n.* 生计

demanding /dɪ'mɑ:ndɪŋ/ *adj.* 要求高的

aquaculture /'ækwəkʌltʃə(r)/ *n.* 水产养殖

crustacean /krʌ'steɪʃn/ *n.* 甲壳纲动物

compound /'kɒmpaʊnd/ *n.* 化合物

derive /dɪ'reɪv/ *v.* 源于

microalgae /ˌmaɪkrəu'ældʒi:/ *n.* 微藻类

prospect /'prɒspekt/ *n.* 可能性, 前景  
 institutional /ˌɪnstɪ'tjuːʃənl/ *adj.* 制度上的  
 alleviate /ə'liːviət/ *v.* 减轻  
 accompany /ə'kʌmpəni/ *v.* 伴随

· H 段 ·

resolve /rɪ'zɒlv/ *v.* 解决  
 utilise /'juːtəlaɪz/ *v.* 利用  
 alternative /ɔ:l'tɜːnətɪv/ *adj.* 另外的, 其他的

Reading Passage 3. The Olympic Torch

文章结构

体裁	说明文
主要内容	本文主要介绍了奥运火炬外观设计和火炬燃料不断优化的发展史。
结构	第 1 段：奥运火炬的历史意义。 第 2 段：奥运火炬传递的发展。 第 3 段：现代奥运火炬设计的过程。 第 4 段：奥运火炬的传递与使用。 第 5 段：1936—1956 年现代奥运火炬的设计构造。 第 6 段：1972—1996 年火炬的设计构造。 第 7 段：2000 年以后火炬的设计构造。 第 8 段：现代火炬采用双火焰系统。 第 9 段：2002 年盐湖城奥运会火炬的设计。

题目详解

Questions 27-29

思路

本部分为摘要填空题，为概括总结型题目，在雅思阅读中难度适中。该题型着重考查对原文一段或几段甚至全文的大意补充完整。句与句之间在原文中跨度可能略大，基本遵循顺序原则（偶尔会出现乱序），所以如果关键词处找不到答案，可向上或向下多读几句。做题时，先通读摘要，了解大致内容，锁定摘要的起始段落。通读本摘要之后，发现主要讲的是现代奥运火炬设计的初衷以及需求数量，大致锁定至第 3—4 段。然后画出空白处所在题干的关键词，回文中寻找相应的描述，通过同义替换或理解意思确定答案，答案一般为原文原词。

解答

27. 题干：以便奥运火炬能抵御各种类型的什么。空白处需要填写一个名词性成分。通过题干关键词 the Olympic Committee 可定位到原文第 3 段第 2 句。往后扫读，发现 28 题的关键词 value 率先出现，27 和 28 题出现了小乱序。接着往后读锁定 “After the torch is completed, it has to succeed in going through all sorts of severe weather conditions” 这句话，其中 succeed in going through 同义替换了题干 withstanding, all sorts of 替换了 all kinds of，其后所跟内容即为答案。因此，本题的答案为 severe weather

conditions。

28. 题干：通常，现代奥运火炬的设计兼具什么价值。空白处需要填写一个形容词成分。做上一题时，我们已经注意到了本题的关键词 value 先行出现，锁定 “The group that wins the competition will come up with a design for a torch that has both aesthetic and practical value.” 其中 has both...and...value 为题干 enjoys...value 的改写，这句话是说火炬的设计兼具美学和实用价值。因此，本题的答案为 aesthetic and practical。
29. 题干：每一位接力选手在跑完火炬接力后都有机会买下这个火炬作为什么。空白处需要填写一个单数名词成分。依据顺序原则，接着往下读，第 4 段出现了 runner 这一关键词，扫读相关描述，发现了 “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” 这句话，其中 buy his or her torch 同义替换了题干 purchase the torch, when he or she finishes his or her part of the relay 为题干 at the end of his or her leg of the relay 的改写。因此，本题的答案为 (treasurable) souvenir。

### Questions 30-35

#### 思路

本部分为事物特征配对题，要求将不同年份的火炬与其对应的特征进行匹配。题干以乱序出题。解答本题时，可以先画出题干的关键信息，然后在文中画出选项中不同年份的火炬（由于选项基本都有时间提示，所以可以根据时间去寻找不同火炬在原文的位置），再分别画出它们的相应特征，一个个与题干关键信息比对即可。必要时进行同义替换。此外，没有 NB 提示出现，说明选项不会复选。

#### 解答

30. 题干：第一个液态燃料火炬。关键词 first liquid。
31. 题干：不环保的火炬。关键词 not environmentally friendly。
32. 题干：开始记录火炬手名字的火炬。关键词 record the name。
33. 题干：有潜在的灼伤火炬手胳膊危险的火炬。关键词 burn arms。
34. 题干：以 “Light” 为主题的火炬。关键词 theme of ‘Light’。
35. 题干：不是在希腊点燃的火炬。关键词 not lit in Greek。

在画完题干的关键信息之后，我们以时间和地点为定位词，分别去文中寻找各奥运会火炬出现在文中的位置，并画出该火炬的关键特征。具体如下：

**A 古代雅典奥运火炬：**出现于原文第 1 段，特点为每四年一届，每次在举办之前都会点燃圣火，以敬赫拉女神。对照 30—35 题的关键词，没有对应的信息，所以排除 A 选项。

**B 1936 柏林奥运火炬：**通过时间 1936 回原文寻找，这个时间出现在了第 2 段第 2 句和

第5段开头。其中第2段是说这届奥运会第一次举办了火炬接力，第5段前两句主要介绍了它的设计，关于设计文中提到“The name of the runner was also inscribed on the platform as a token of thanks.”其中 the name...were also inscribed 替换 32 题关键词 record the name。因此，32 题的正确答案为 B。

**C 1952 冬季奥运火炬：**通过时间 1952 回原文寻找，这个时间出现在了第2段第2句后半句。这里是说直到 1952 年，冬季奥运会才恢复火炬接力。接下来 however 预示转折，虽然恢复了火炬接力，但圣火并没有在希腊奥林匹亚（the torch was lit not in Olympia, Greece）点燃，而是在滑雪的发源地挪威点燃。这一特征对应 35 题关键词。因此，35 题的正确答案为 C。

**D 1956 奥运火炬：**通过时间 1956 回原文寻找，这个时间出现在了第5段最后1句。这句提到火炬接力的最后一棒由镁和铝点燃，但一些燃烧的碎片掉了下来，灼伤了火炬手的胳膊。该句中的 seared the...arms 对应 33 题关键词 burn arms。因此，33 题的正确答案为 D。

**E 1972 慕尼黑奥运火炬：**通过时间 1972 回原文寻找，这个时间出现在了第6段第1句。显然，“liquid fuels made its first appearance”对应 30 题关键词 first liquid。因此，30 题的正确答案为 E。

**F 1996 亚特兰大奥运火炬：**通过时间 1996 回原文寻找，这个时间分别出现于第6段结尾、第7段开头、第8段开头。仔细阅读发现，第6段介绍了亚特兰大火炬的设计特征。第7段开头是说它的燃料含碳，会产生大量烟雾，污染环境。第8段是说它采用了双火焰燃烧系统，能够抵御恶劣环境。显然，第7段描述的特征（detrimental to the environment）对应 31 题关键词 not environmentally friendly。因此，31 题的正确答案为 F。

**G 2000 悉尼奥运火炬：**通过时间 2000 回原文寻找，这个时间出现在了第7段的后半段和第8段。第7段是说它设计更为轻便，造价更低，且对环境无害，还能产生明亮的火焰。第8段是说它同样采用了双火焰燃烧系统，能够抵御恶劣环境。与剩余选项对照并不对应，可排除。

**H 2002 盐湖城奥运火炬：**其实，在做完其他题目，并排除了 A 和 G 选项之后，这一题自然有了答案，不过保险起见，我们还是依照上述办法，查看下信息是否对应。通过时间 2002 寻找定位到了文章最后一段，“...for the purpose of echoing the theme of ‘Light the Fire Within’ of that Olympics”这句中，the theme of ‘Light’...重现，对应 34 题关键词。因此，34 题的正确答案为 H。

## Questions 36-40

## 思路

本部分为图表填空题，为雅思阅读题型中比较简单的题型，需要结合对图表信息的理解和原文内容进行解题。题目基本遵循顺序原则（个别时候会有乱序出现）；答案一般为原文原词（个别情况需要变换形式）。做题时建议考生先看清题目要求字数并预判词性，然后阅读题干并画出题干关键词（实意名词、动宾结构等），接着通过关键词回到原文定位，必要时通过同义替换确认要填写的答案。

通过标题 1996 和 2000 可将阅读范围锁定至原文第 6—8 段，这三段主要是描述 1996 和 2000 年火炬设计和燃料的基本情况。

## 解答

36. 题干：铝制的底座所包含的东西。空白处应该填写名词性成分。通过题干关键词 *aluminium base* 定位于第 6 段：The torch at the 1996 Atlanta Summer Olympics is equipped with an aluminium base that accommodates a tiny fuel tank. 即 1996 年亚特兰大夏季奥运会的火炬有一个铜质的底座构成的小型燃料箱。关键词原文重现。因此，本题的答案为 (a/tiny) fuel tank。
37. 题干：一个铜阀门的上有许多小什么。空白处应该填写复数名词。通过题干关键词 *brass valve* 定位于第 6 段：As the fuel ascends through the modified handle, it is squeezed through a brass valve that has thousands of little openings. 即随着燃料沿着改良过的把手上升，它就被挤到了有很多小口的铜阀门那里。关键词原文重现；little 替换题干 small。因此，本题的答案为 openings。
38. 题干：受压的燃料从改善的什么当中升起来。空白处应该填写名词成分。本题与上一题小乱序，即在上一题答案出现之前就已出现。题干信息 *fuel rises* 说明这里讲到了气体上升的情况，做刚才那一题时提到：As the fuel ascends through the modified handle...，即燃料沿着改良过的 handle 上升，其中 *ascends* 替换题干 *rises*，*modified* 替换题干 *improved*。因此，本题的答案为 handle。
39. 题干：关于什么的混合体用作液体燃料。通过 *liquid fuel mix of* 可知，空白处应该填写气体名称。文章第 7 段提到了几个气体名称，先是提到 1996 年的丙烯，再到 2000 年丙烷和丁烷的混合，即 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. 其中 *combination* 对应题干 *mix*。因此，本题的答案为 propane and butane。
40. 题干：一种什么的燃烧器系统。空白处应该填写单数名词成分。通过题干关键词 *burner system* 可定位到第 8 段第 1 句，只有这段提到了燃烧系统：Both the 1996 and 2000 torches adopted a double flame burning system. 即 1996 和 2000 的火炬都采用了双

火焰的燃烧系统。因此，本题的答案为 double flame。

## 参考译文

### 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

### 奥运火炬

公元前 776 年，希腊人举办了第一届奥林匹克运动会，自那时起，奥林匹亚城每隔四年都会举办一次奥运会。当时，在奥运会开幕式前，都要举行路途遥远的奥运火炬接力。希腊人会点燃圣坛上圣火盆内的火焰，以敬奉赫拉女神，她是掌管出生和婚姻的希腊女神。

圣火被再次带入奥林匹克运动是在 1928 年的阿姆斯特丹奥运会上，这次的点火仪式免去了火炬接力。1936 年柏林夏季奥运会第一次举行了火炬接力活动。直到 1952 年，冬季奥运会的圣火传递才得以恢复。然而那年，圣火并没有在希腊的奥林匹亚点燃，而是在滑雪诞生地挪威点燃。直至 1964 年奥地利因斯布鲁克冬季奥运会的举办，奥运圣火才得以在奥林匹亚重新点燃。

火炬最初只是一位或多位设计家的一个抽象概念。一些设计组向奥林匹克组委会呈交他们的设计稿，以期获得设计火炬的机会。当选的设计组能够设计出兼具美学与实用性的火炬。火炬制造好以后，必须要经受住各种恶劣的天气情况。现代奥林匹克火炬的样式出自迪士尼艺术家约翰·亨奇 (John Hench) 之手，他设计了 1960 年在加利福尼亚举办的斯阔谷冬季奥运会的火炬。他的设计为之后的火炬

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

设计奠定了基础。

前往奥运会举办地的路途遥远，所以一个火炬肯定不够，需要上千个火炬，因此需要铸造几千个火炬。火炬接力分为多个阶段，有上千名传递者，因此会配备大约 1 万到 1.5 万个火炬。每位传递者在完成传递后可以选择购买这个火炬，以作为珍贵的纪念。

现代奥运会（1936 年柏林奥运会）的第一把火炬呈细长的钢杆状，顶部为圆形平台，中间留有圆孔以喷射火焰，平台上还刻有火炬手的名字以表示感谢。早期，火炬的燃料有火药和橄榄油。还有一些火炬混合了四氮六甲圆、萘以及可燃液体。但是这些材料都不是最佳燃料，而且它们有时很危险。在 1956 年的奥运会上，火炬传递的最后一棒是由镁和铝点燃，然而一些燃烧着的碎片掉落烫伤了传递者的胳膊。

为了提升安全性，1972 年慕尼黑奥运会第一次使用液态燃料。此后，火炬的燃料都使用加压后的液态燃料。当燃料点燃时，会转换成气体，进而产生火焰。液态燃料对于传递者来说更安全，而且这种燃料可以储存在较轻的容器中。1996 年亚特兰大夏季运动

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**.

会的火炬设计包括一个铝制底座,里面放有小型的燃料槽。燃料沿着改良过的火炬柄上升时,它会受到黄铜阀的挤压,黄铜阀有上千个细小的开口。当燃料通过小开口时,会积累压力,一旦到达开口时,压力减小,液体会变成气体进而燃烧。

1996年奥运会的火炬燃料是丙烯,它能产生明亮的火焰。然而,由于丙烯含碳,它会产生大量的烟雾危害环境。2000年,悉尼奥运会的火炬设计更为轻便,造价更低,而且对环境无害。设计者决定火炬的燃料由35%的丙烷(用于做饭和取暖的气体)和63%的丁烷(从汽油中提取的气体)混合而成,这样既能产生明亮的火焰,又不至于产生过多烟雾。

1996年和2000年的奥运火炬都采用了双火焰燃烧系统,以保证火焰在恶劣的天气环境下保持燃烧。外部火焰燃烧较慢、温度较低。人们能通过橙色的火焰清楚地看到它,但是火焰并不稳定。相反,内部的火焰燃烧较快、温度较高,是一种蓝色的小火焰,由于内壁为其提供保护阻挡风吹,这种火焰比较稳定。因此,内部火焰就相当于长燃火,如果外部火焰熄灭的话,它可以将其重新点燃。

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.

在 2002 年盐湖城奥运会，奥运火炬的顶部由玻璃组成，火焰在内燃烧，这与“点燃心中的火焰”的奥运主题相呼应。这一火炬的设计对之后的设计产生了很大的影响。

## 词汇详解

### · 第 1 段 ·

first-ever /ˌfɜːst 'evə(r)/ *adj.* 第一次的  
host /həʊst/ *v.* 举办  
cauldron /ˈkɔːldrən/ *n.* 圣火盆  
altar /ˈɔːltə(r)/ *n.* 祭坛  
ritual /ˈrɪtʃuəl/ *n.* 仪式  
devoted /dɪˈvəʊtɪd/ *adj.* 热衷于……的

### · 第 2 段 ·

reintroduction /ˌriːɪntrəˈdʌkʃn/ *n.* 重新启用  
torch relay 火炬传递  
resume /rɪˈzjuːm/ *v.* 恢复  
birthplace /ˈbɜːθpleɪs/ *n.* 发源地  
reignite /riːɡˈnaɪt/ *v.* 再次点燃

### · 第 3 段 ·

abstract /ˈæbstrækt/ *adj.* 抽象的  
aesthetic /iːsˈθetɪk/ *adj.* 美学的  
attribute sth. to sb. 认为某（事）物是某人所作（或所说）  
lay a solid foundation for 为……奠定坚实的基础

### · 第 4 段 ·

replicate /ˈreplɪkeɪt/ *v.* 复制  
treasurable /ˈtreʒərəbl/ *adj.* 珍贵的

souvenir /ˌsuːvəˈniə(r)/ *n.* 纪念品

### · 第 5 段 ·

slender /ˈslendə(r)/ *adj.* 细长的  
steel rod 钢拉杆  
circular /ˈsɜːkjələ(r)/ *adj.* 圆形的  
platform /ˈplætfɔːm/ *n.* 平台  
jet /dʒet/ *v.* 射出  
inscribe /ɪnˈskraɪb/ *v.* 题写，刻  
as a token of 作为  
gunpowder /ˈɡʌnpaʊdə(r)/ *n.* 火药  
adopt /əˈdɒpt/ *v.* 采用  
hexamine /ˈheksəmiːn/ *n.* 四氮六甲圜  
naphthalene /ˈnæfθəliːn/ *n.* 萘  
flammable /ˈflæməbl/ *adj.* 易燃的  
hazardous /ˈhæzədəs/ *adj.* 有害的  
magnesium /mæɡˈniːziəm/ *n.* 镁  
aluminium /ˌæljəˈmɪniəm/ *n.* 铝  
fall off 落下  
sear /sɪə(r)/ *v.* 灼伤

### · 第 6 段 ·

pressurise /ˈpreʃəraɪz/ *v.* 使增压  
aluminium base 铝质底座  
accommodate /əˈkɒmədeɪt/ *v.* 容纳  
fuel tank 燃料箱

ascend /ə'send/ *v.* 上升, 升高

squeeze /skwi:z/ *v.* 挤, 压

brass valve 黄铜阀

opening /'əʊpnɪŋ/ *n.* 开口

accumulate /ə'kju:mjəleɪt/ *v.* 积累

### · 第 7 段 ·

fuel /'fju:əl/ *v.* 加燃料

propylene /'prəʊpəli:n/ *n.* 丙烯

give out 发出

be loaded with 装载着

detrimental /,detrɪ'mentl/ *adj.* 有坏处的

propose /prə'pəʊz/ *v.* 提出

propane /'prəʊpeɪn/ *n.* 丙烷

butane /'bjʊ:teɪn/ *n.* 丁烷

generate /'dʒenəreɪt/ *v.* 产生

### · 第 8 段 ·

exterior /ɪk'stɪəriə(r)/ *adj.* 外部的

perceive /pə'si:v/ *v.* 感知

interior /ɪn'tɪəriə(r)/ *adj.* 内部的

stability /stə'bɪləti/ *n.* 稳定性

pilot light 常燃小灯

relight /ri:'laɪt/ *v.* 重新点燃

go out 熄灭

### · 第 9 段 ·

echo /'ekəʊ/ *v.* 反映

# Test 5

## Reading Passage 1. The Pearl

### 文章结构

体裁	说明文
主要内容	本文介绍了珍珠的分类及其形成过程。
结构	A 段：珍珠在历史上的地位和功用。 B 段：珍珠的分类（天然珍珠、养殖珍珠和人造珍珠）及珍珠的形成过程。 C 段：养殖珍珠与天然珍珠的区别。 D 段：海水珍珠与淡水珍珠的区别。 E 段：生产养殖珍珠的时长。 F 段：人造珍珠的形成。 G 段：如何鉴定珍珠的优劣。 H 段：历史上和现在天然珍珠的最佳产地。

### 题目详解

#### Questions 1-4

#### 思路

本部分为段落信息配对题，为雅思阅读题型中难度最大的细节题之一，要求将细节信息与其对应的段落进行匹配。该题型出题顺序为乱序（即不按文章的段落顺序出题），一般有两种呈现形式：一种是每个段落只选一次；另一种是出现“**NB** You may use any letter more than once”这种提示语，即某个段落可能要重复选。显然，该题属于第一种。

具体解题思路为：阅读所有题干信息，画出可以帮助定位的关键词（一般以名词、核心动词或形容词为主，是题干核心意思的浓缩）。带着关键词回到原文，依照段落顺序扫读，读完一段，在题干中找寻一条对应的细节信息。必要时进行同义替换。

解 答

1. 题干：关于珍珠和使用者的古代故事。关键词 ancient stories、customers。
2. 题干：养殖过程中的困难。关键词 cultivating process、difficulties。
3. 题干：决定天然珍珠价值的因素。关键词 natural pearls、value、factors。
4. 题干：区分养殖珍珠和天然珍珠的一种生长机制。关键词 cultured pearls /S. natural ones、a growth mechanism。

在画完题干的 key information 之后，依次扫读文章各段，重点扫读各段第 1—2 句、最后 1 句，快速扫读各段细节描述。具体如下：

**A 段：**第 1 句先是说有史以来，珍珠在权贵之中一直占有独特地位。然后列举了一个古罗马女性的例子，说她们睡觉时会戴着珍珠，以随时提醒自己有多么富有。其中 all through the history、ancient Rome 都体现出了 ancient “古老” 这个词，而 the rich and powerful 以及 women 都属于 customers。因此，1 题的正确答案为 A。

**B 段：**这一段主要讲述了珍珠分为三类，即天然珍珠、养殖珍珠和人造珍珠。接下来阐述了天然珍珠的形成过程。与 2—4 的关键词对照，没有发现对应信息，因此排除 B。

**C 段：**这一段主要讲述了养殖珍珠在形成过程中区别于天然珍珠的地方，即本段的第 2 句为段落关键句。其中 only one difference between cultured pearls and natural ones 为 4 题题干的改写，difference between...and... 对应 distinguishes...from...。因此，4 题的正确答案为 C。

**D 段：**这一段主要介绍了养殖珍珠的环境、特征和生产方式。对照 2 题和 3 题的关键词，没有发现对应信息，因此排除 D。

**E 段：**这一段第 1 句说养殖珍珠需要几年时间。而且这期间，有可能会产生畸形珍珠或牡蛎因并发症死亡，只有一半的牡蛎可能成功产出珍珠，且只有 5% 的珍珠符合质量要求。无一不体现出养殖珍珠的困难，对应 2 题关键词。因此，2 题的正确答案为 E。

**F 段：**这一段主要讲述了人造珍珠的形成和如何鉴别真假珍珠。对照 3 题的关键词，没有发现对应信息，因此排除 F。

**G 段：**这一段第 1 句便提到了评估珍珠价值的几个因素。其中 several factors are taken into account to evaluate 对应 3 题题干 factors which decide the value of。因此，3 题的正确答案为 G。

至此，答案都已选出，可以接着做下一题了。

**Questions 5-10****思路**

本部分为摘要填空题，为概括总结型题目，在雅思阅读中难度适中。该题型着重考查对原文一段或几段甚至全文的大意补充完整。句与句之间在原文中跨度可能略大，基本遵循顺序原则（偶尔会出现乱序），所以如果关键词处找不到答案，可向上或向下多读几句。做题时，先通读摘要，了解大致内容，锁定摘要的起始段落。通读之后发现这个摘要主要考查不同的地域对待珍珠的不同的态度，重点搜寻国家或地点名称即可。然后，画出空白处所在题干的关键词，回文中寻找相应的描述，通过同义替换或理解意思确定答案，答案一般为原文原词。

**解答**

5. 题干：历史上，珍珠对于权贵人士来说十分重要，往往被哪里的女性当作宝石。通过题干关键词 women 一词定位到 A 段第 2 句，随即出现了国家名称 ancient Rome。因此，本题的答案为 ancient Rome。
6. 题干：同时，珍珠甚至也被哪里的人们用作药引。通过题干关键词 medicine 可定位到 A 段最后 1 句，发现这句开头提到一些东方的国家，比如波斯，往往会将珍珠研成粉用于治疗疾病。因此，本题的答案为 Persia。
7. 题干：……而哪个岛因制造人造珍珠而闻名。通过题干关键词 Island、imitation pearl 定位到 F 段，这一段主要介绍了人造珍珠的生产和特征。第 2 句提到了西班牙的 Mallorca 岛以人造珍珠产业闻名。其中 is renowned for 为题干 is famous for 的同义替换，island 和 imitation pearl industry 原词重现。因此，本题的答案为 Mallorca。
8. 题干：哪里常常生产一些光泽度最好的珍珠。依据顺序原则，接着往下读。通过题干关键词 the glitteriest pearls 定位到 G 段最后 1 句。关键词原文重现。因此，本题的答案为 Japan。
9. 题干：……而哪里由于沿海这一有利条件生产更大的珍珠。与上一题较近，比较好判断答案。其中 bigger pearls 对应题干 larger size ones, the south sea water 证明了 along the coastline 这一特点。因此，本题的答案为 Australia。
10. 题干：过去，波斯湾的哪里生产世界上最好的珍珠。通过题干关键词 Persian Gulf 定位到 H 段第 1 句，the highest quality around the globe 对应题干 the world's best。因此，本题的答案为 Bahrain。

**Questions 11-13****思路**

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节

信息与原文信息的关系。在解题时,根据题干中的关键词找到原文中相关的同义替换词:如果题干与原文表述的信息一致,答案为 TRUE;如果题干与原文表述的信息矛盾,答案为 FALSE;如果题干信息在原文中并未出现或并不矛盾,答案为 NOT GIVEN。

### 解答

11. 题干:一般来讲,养殖珍珠的核要比天然珍珠的大好多。题干的关键词为 cultured pearl、natural pearl、centre。通过之前做题的了解,文中只有 C 段对养殖珍珠和天然珍珠进行了比较,扫读发现 This results in much larger cores in cultivated pearls than those in natural pearls. 这句话是说这导致了养殖珍珠的 core 比天然珍珠的要大。关键词 centre 在文中改写为 core, significantly larger 改写为 much larger, 题干与原文表述一致。因此,本题的答案为 True。
12. 题干:有时,假珍珠可能更贵。题干的关键词为 fake pearls、more expensive。通过 fake pearls 定位到 F 段最后 1 句。扫读附近的内容,发现未出现关于价格的描述及对比。因此,本题的答案为 Not Given。
13. 题干:日本生产的珍珠往往比澳大利亚生产的珍珠更小。这一道题再次出现比较。通过题干国家名称 Japan、Australia 定位到 G 段最后 1 句: 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. 这句话是说日本的珍珠色泽最好,而澳洲的珍珠个头更大。因此,本题的答案为 True。

## 参考译文

### The Pearl

### 珍珠

- A The pearl has always had a special status in the rich and powerful all through the 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

有史以来,珍珠在有钱有势的人中一直占有独特地位。例如,古罗马的女性睡觉时都戴着珍珠,这样她们醒来后就能想起自己多么富有。在珠宝商学会切割宝石之前,珍珠的商业价值一直高于钻石。在一些东方国家,例如波斯,磨碎的珍珠粉可以用来治疗任何疾病,包括心脏病和癫痫。

珍珠一般可分为三类:天然珍珠、养殖珍珠、人造珍珠。当刺激物(比如

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 **bead** 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.

一颗沙粒) 进入某一种牡蛎、蚌或蛤的体内, 软体会分泌出一种液体包裹刺激物以保护自己。液体涂层会逐渐增加, 直到刺激物变成一颗光泽饱满的天然珍珠。

养殖珍珠会经历同样的过程。它和天然珍珠只有一点不同: 养殖珍珠内的刺激物是一种叫作“珍珠母”的珠子, 它是通过手术植入到牡蛎中的。这就导致养殖珍珠的珠核要比天然珍珠的大一些。只要有足够多的珍珠质(包裹在刺激物外的液体), 就能产出一颗晶莹透亮的优质珍珠, 珠核的大小也不会影响美观和耐用性。

咸水和淡水都可以培育珍珠。一般来说, 咸水珍珠的品质更高, 不过也有几种淡水珍珠被认为质量较高。此外, 淡水珍珠通常呈不规则形状, 形似膨大的大米。不过珍珠的价值主要取决于个体的优点, 而非珍珠的来源。咸水珍珠的牡蛎通常养殖在受保护的泻湖或火山环礁上, 而今天出售的大部分淡水珍珠来自中国。生产养殖珍珠的方式有很多: 使用淡水贝或海水贝, 将嫁接物移植到外套膜或生殖腺, 添加球形珠核或无珠核养殖。

- 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 almost three years, and then be transplanted 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 circle, 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 **lustre**. 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
- 不论以何种方式获取珍珠,通常都要花费几年时间。首先,蚌需要近三年的时间达到成熟,然后才能被植入刺激物。当刺激物进入之后,又需要大概三年时间珍珠才能达到一定大小。有时,刺激物会被吐出,因此会产出畸形的珍珠,或者牡蛎也有可能因为大量的并发症直接死亡。经历一段5到10年的过程后,只有一半的牡蛎可以成功产出珍珠。而在这些珍珠中,只有5%的珍珠能达到珠宝商要求的质量。
- 人造珍珠又完全不同。西班牙的马洛卡岛有着著名的珍珠仿造业。通常情况下,珠核会浸泡在鱼鳞制成的溶液里。但是这种涂层很薄而且容易磨损。区分真假珍珠的一个方法就是咬一下珍珠。假的珍珠会划过牙齿,而真珍珠上的涂层则会给人一种砂砾的感觉。
- 对珍珠的评估有几个方面的因素:大小、形状、颜色、表层质量和光泽度。通常来说,三类珍珠的价值等级依次下降:天然珍珠、养殖珍珠、人造珍珠(基本没有价值)。对于珠宝商来说,判断一颗珍珠是天然的还是养殖的,可以把它送到宝石鉴定所,用X射线检查。高质量的天然珍珠十分罕见。日本的欧卡娅(Akoya)珍珠是世界上最具有光泽的珍珠品种之一,而

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.

澳大利亚的南海水域则是大珍珠的最佳产区。

历史上,世界上最优质的珍珠产自波斯湾,尤其是巴林附近。由于缺乏先进的设备,这些珍珠都是由潜水员亲手摘取。不幸的是,在 20 世纪 30 年代早期,波斯湾发现了大量的石油,污染的海水毁掉了天然的珍珠,天然珍珠业被迫停止。如今,印度的天然珍珠数量可能最多。但讽刺的是,印度大部分的天然珍珠其实都来源于巴林。

## 词汇详解

### · A 段 ·

diamond /'daɪəmənd/ *n.* 钻石  
jeweller /'dʒuːələ(r)/ *n.* 珠宝商  
gem /dʒem/ *n.* 宝石  
ground /graʊnd/ *adj.* 磨碎的  
powder /'paʊdə(r)/ *n.* 粉  
epilepsy /'epɪlepsi/ *n.* 癫痫

### · B 段 ·

cultured /'kʌltʃəd/ *adj.* 人工养殖的  
imitation /,ɪmɪ'teɪʃn/ *adj.* 人造的  
irritant /'ɪrɪtənt/ *n.* 刺激物  
oyster /'ɔɪstə(r)/ *n.* 牡蛎  
mussel /'mʌsl/ *n.* 蚌  
clam /klæm/ *n.* 蛤  
mollusc /'mɒləsk/ *n.* 软体动物

secrete /sɪ'kri:t/ *v.* 分泌

fluid /'fluɪd/ *n.* 液体

defence /dɪ'fens/ *n.* 防御

coat /kəʊt/ *v.* 覆盖在……的表面; 包裹

accumulate /ə'kju:mjəleɪt/ *v.* 累积

lustrous /'lʌstrəs/ *adj.* 有光泽的

### · C 段 ·

undergo /ˌʌndə'gəʊ/ *v.* 经历

bead /bi:d/ *n.* 珠子

surgical /'sɜ:dʒɪkl/ *adj.* 手术上的

implantation /,ɪmplə'n'teɪʃn/ *n.* 移植

cultivated /'kʌltɪveɪtɪd/ *adj.* 人工培植的

nacre /'neɪkə/ *n.* 珍珠质

gorgeous /'gɔ:dʒəs/ *adj.* 华丽的

nucleus /'nju:kliəs/ *n.* 核

durability /ˌdʒʊərəˈbɪləti/ *n.* 耐久性

• D 段 •

puffed /pʌft/ *adj.* 肿起的

merit /ˈmerɪt/ *n.* 价值

lagoon /ləˈɡuːn/ *n.* 泻湖

volcanic /vɒlˈkænik/ *adj.* 火山的

atoll /ˈætɒl/ *n.* 环礁

transplant /trænsˈplɑːnt/ *v.* 移植

graft /grɑːft/ *n.* 嫁接

mantle /ˈməntl/ *n.* (软体动物的) 套膜, 软膜

gonad /ˈɡəʊnəd/ *n.* 生殖腺

spherical /ˈsfɪərɪkl/ *adj.* 球形的

• E 段 •

mature /məˈtʃʊə(r)/ *adj.* 成熟的

reject /rɪˈdʒekt/ *v.* 排斥

deform /dɪˈfɔːm/ *v.* 使成畸形

complication /ˌkɒmplɪˈkeɪʃn/ *n.* 并发症

make it through 通过, 渡过难关

• F 段 •

renowned /rɪˈnaʊnd/ *adj.* 著名的

dip /dɪp/ *v.* 浸, 泡

wear off 磨掉

glide through 滑过

gritty /ˈɡrɪti/ *adj.* 质地如砂砾般的

• G 段 •

evaluate /ɪˈvæljuet/ *v.* 评估, 估价

lustre /ˈlʌstə(r)/ *n.* 光泽

glossy /ˈɡlɒsi/ *adj.* 有光泽的

cradle /ˈkreɪdl/ *n.* 摇篮

• H 段 •

reserve /rɪˈzɜːv/ *n.* 储备

contaminate /kənˈtæmɪneɪt/ *v.* 污染

pristine /ˈprɪstiːn/ *adj.* 原始的

## Reading Passage 2.

### 文章结构

体裁	说明文
主要内容	本文主要介绍了汽车从低级到高级的发展过程，并介绍了每个阶段不同的品牌和发明者做出的贡献。
结构	<p>第 1 段：汽车发明的起源。</p> <p>第 2 段：现代汽车的发明。</p> <p>第 3 段：汽车从富人时代进入大众化时代。</p> <p>第 4 段：汽车大规模生产的变革——标准化零部件与流水线生产。</p> <p>第 5 段：吉普车的诞生及发展。</p> <p>第 6 段：50 年代以后汽车在实用与美观方面的发展。</p> <p>第 7 段：经济危机对美国汽车生产的影响。</p> <p>第 8 段：汽车生产的技术发展趋势。</p> <p>第 9 段：汽车生产在动力方面的发展趋势。</p>

### 题目详解

#### Questions 14-19

#### 思路

本部分属于品牌与特征配对题，要求将特征描述与其对应的品牌匹配。题干以乱序出题。做题时，首先画出题干中的关键信息，然后在文中找出选项中大写的品牌汽车名称，随后标记其附近所有的关键特征描述，最后将这些特征与题干的关键信息比对，意思相同的或关键词对应上的即为答案。注意题目并未出现 NB 提示，说明选项不会复选。

#### 解答

14. 题干：开始生产第一批汽车。关键词 the first automobiles.
15. 题干：制造普通消费者可以负担得起的工业化汽车。关键词 the industrialised cars、common consumers could afford.
16. 题干：改善了汽车空间的利用率。关键词 automobile space、utilisation rate.
17. 题干：持续不断地提升汽车的整体性能。关键词 upgraded the overall performance.
18. 题干：即使经济衰退还保持领先增长。关键词 an economic recession.
19. 题干：第一次将引擎安装在前轮上。关键词 engine on the front wheel.

在画完题干的关键信息之后，我们以选项中的品牌名称为定位词，分别去文中寻找它们

出现的位置及相应关键特征。具体如下：

**A Ford:** 出现于第 3—4 段。第 3 段的最后提到：...more people from the middle class could afford them. This was especially attributed to Henry Ford who did two crucial things... 这句话意思是说许多中产阶级可以买得起小汽车了。这主要归因于 Henry Ford 做了两件关键的事情：一是给汽车合理定价；二是给员工足够高的工资。显然，该句中的 more people from the middle class 对应第 15 题的关键信息 common consumers。第 4 段 “This large-scale, production-line manufacture of affordable automobiles was debuted.” 这句话也再次强调了 Henry Ford 想生产大众可以支付得起的汽车这一想法。因此，15 题的答案为 A。

**B the BMC Mini:** 出现于第 6 段中间。很明显，“BMC first launched a revolutionary space-friendly Mini in 1959, which turned out to harvest large global sales.” 这句话中，launched a revolutionary space-friendly 为第 16 题题干关键信息的改写。因此，16 题的答案为 B。

**C Cadillac and Lincoln:** 出现于第 7 段的最后 1 句。这句的前一句提到在 20 世纪 70 年代，美国的汽车行业遭遇重创，紧接着转折，提到 Cadillac 和 Lincoln 这样全尺寸型轿车的销量在经济危机的几年中取得了巨大回升。其中 economic crisis 对应第 18 题的关键信息 economic recession, scored a huge comeback 对应 maintained leading growth。因此，18 题的答案为 C。

**D Mercedes-Benz:** 出现于第 2 段的最后。这一段的开头提到第一批实用汽车 (the first practical automobiles) 由不同的发明者同时发明，其中提到了 Karl Benz 于 1885 年建造了第一辆汽车 (first built the automobile)，并因此获得了专利，接着于 1888 年开始量化生产。对应第 14 题题干的 key information。因此，14 题的答案为 D。

**E Mazda:** 出现于第 8 段的最后 1 句。其中 with its engine firstly installed in the fore-wheel 对应第 19 题的关键信息 installed its engine on the front wheel for the first time。因此，19 题的答案为 E。

**F Jeep:** 出现于第 5 段。这一段的最后提到 Jeep 研究出许多军事和民用功能的衍生品，并在其他国家不断地升级整体性能。其中 kept upgraded in terms of overall performance 对应第 17 题的关键信息 upgraded the overall performance。因此，17 题的答案为 F。

**G Maserati, Ferrari, and Lancia:** 至此，所有选项的答案都已选出，且提示没有选项会被复选，所以这一选项可以不看了。如果不放心的话，可以复查一下这个信息。这几个品牌名称出现于第 6 段倒数第 2 句。文中提到，公司合并蔚然成风，这几个汽车公司被更大的公司收购。对照 14—19 题的关键词，没有对应的信息，确认不会选择。

## Questions 20-26

## 思路

本部分为简答题，为雅思阅读题型中比较简单的题型，主要考查考生在文章中提取相关信息的能力。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。答案一般为原文原词，不需要考生自己总结或归纳。做题时建议考生先看清题目要求字数，然后阅读题干并画出题干关键信息，通过关键信息回到原文定位，必要时通过同义替换确认要填写的答案。

## 解答

20. 题干：19 世纪以来，现代引擎的重要特征是什么？答案应该是一个名词性的特征。通过题干关键词 *since the 19th century* 定位于第 1 段第 2 句 1806 这个时间词。这一句提到，1806 年第一批由内燃发动机驱动的汽车应运而生，于 1885 年开拓了广泛使用现代汽油内燃机的先河。其中“1806”“1885”替换了题干中的 19 世纪，*modern* 重现。因此，本题的答案为 *petrol-fueled internal combustion*。
21. 题干：本世纪初，汽车对富人来说象征着什么？答案应该是一个名词成分。通过题干关键词 *at the very beginning of this century* 和 *the rich* 定位于第 3 段第 1 句话，搜索并未发现答案，接着往后读，第 3 句话中的 *symbol* 替换了题干中的 *symbolise*。因此，本题的答案为 *identity and status*。
22. 题干：Ford 的流水线多长时间制造一辆汽车？答案应该是一个时间名词。通过题干关键词 *Ford* 和 *assembly line* 定位于第 4 段，扫读发现第 3 句出现了时间频率词 *every 15 minutes*，这句话中的 *come off all assembled from the line* 替换了题干中的 *assembly line*。需要注意的是，题干问的是 *how long*，而不是 *how often*。因此，本题的答案为 *15 minutes*。
23. 题干：是什么重大历史事件导致美国汽车在与日本进口车竞争时遭受重创？答案应该是一个历史事件名称。通过题干关键词 *competing with Japanese imported cars*、*American cars*，定位于第 7 段。文中提到，美国的汽车产业本来是处在主导地位的。后因 1973 年的石油危机、与日本和欧洲进口车的竞争、汽车限排规章和停滞不前的创新，一切都改变了。在改变的四个原因中，属于历史性事件的只有一个，即 *the 1973 oil crisis*。因此，本题的答案为 *the 1973 oil crisis*。
24. 题干：人们把使用前轮引擎的 Mazda 车称作什么？答案应该是一个名词成分。通过题干关键词 *Mazda*、*front-wheel engine* 定位到第 8 段最后 1 句，*fore-wheel* 替换了 *front-wheel*，*as* 之后的名词即为答案。因此，本题的答案为 *(a) gas-guzzler*。
25. 题干：在现代社会，什么随着引擎管理系统的计算机化大大增加？答案应该是一个名词成分。通过题干关键词 *engine management systems* 定位到最后 1 段的开头，其中 *a sharp elevation* 对应题干 *greatly increased*，其后名词即为答案。因此，本题的答

案为 fuel power。

26. 题干：什么因素导致污染、气候变化和全球变暖？答案应该是一个名词成分，且为有害因素。通过题干关键词 climate change、global warming 定位到最后 1 段的最后。其中 pollute the air 对应 pollution，题干的关键词重现。因此，本题的答案为 toxic gas。

### Question 27

#### 思路

本部分为文章主旨单选题，难点在于需要对文章的主要内容进行理解和概括，同时文章中的某个细节可能会作为干扰选项出现。就本篇而言，主旨相对明了，一直围绕汽车的发展和创新阐述。

#### 解答

27. 题干：这篇文章的主旨是什么？通过做上面的题目我们不难看出，整篇文章主要阐述了汽车的发展和创新的主要历程。A 选项只在最后 1 段提及；C 选项只在第 1 段提及；D 选项中虽然文中有提及汽车行业的历史，但并未提及人类的历史，可排除。因此，本题的答案为 B。

### 参考译文

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 automo-

汽车的历史可以追溯到 1769 年，那时候汽车作为人类的运输工具，还是依靠蒸汽机驱动。1806 年，第一批由内燃机驱动的汽车应运而生，于 1885 年开拓了广泛使用现代汽油内燃机的先河。

人们普遍认为，第一批真正实用型的、依靠汽油内燃机驱动的汽车几乎是由不同的德国发明者同时发明的。卡尔·本茨（Karl Benz）于 1885 年在曼海姆城研制出世界上第一辆汽车。本茨于 1886 年 1 月 29 日获得发明专利，并于 1888 年成立汽车制造公司，将汽车投入生产，之后该公司成为世界著

biles in a company that later became the **renowned** Mercedes-Benz.

As this century began, the automobile industry **marched into** the transportation market for the 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 was **debuted**. A Ford car would come off all **assembled** from the 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

名的梅赛德斯—奔驰 (Mercedes-Benz) 公司。

本世纪初,汽车工业进军运输市场抢夺财富。那时期的驾车者是一群热衷寻求刺激的人。他们在没有封闭式车身或汽车篷顶保护的情况下,无论天气多么恶劣,依然驾车出门。生活在同一社区的人对谁有什么款式的车一清二楚。于是,汽车立即成为一种身份和地位的象征。不久,由于汽车可以让人们随时随地出行,它在广大群众中逐渐受到欢迎。因此,欧洲和北美的汽车价格持续下降,越来越多的中产阶级者有能力购买汽车。而这尤其要归功于亨利·福特 (Henry Ford),他做了两件非常重要的事情。第一,他把汽车的价格定得尽可能合理;第二,付给员工足够高的薪水,这样员工就有能力购买自己生产的汽车。

美国引领了使用汽车标准化零部件以及按照流水线的方式进行大规模生产的趋势。1914年以来,亨利·福特又极大程度地强化了这一概念。在流水线上大规模生产出来的汽车以中产阶级能承受的价格首次公开亮相。工人每15分钟就能组装一辆福特 (Ford) 汽车,这个效率比以往任何方式都高。这不仅提高了生产效率,而且减少了对人力的需求。福特在生产过程中采用了复杂的安全程序——尤其是把员工安排在固定的岗位上,而不是允许他们可以随意轮换岗位,这极大地降

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.

低了工人受伤的概率。这种高薪资和高效率的结合就是我们熟知的福特主义，它为大多数重要行业提供了宝贵的生产经验。

第一辆吉普车（Jeep）作为英国零售商协会（Bantam BRC）轻便越野汽车的原型，是美国陆军和盟军最初使用的轻型四轮驱动汽车。在二战和战后期间，其销量猛增。从那时起，大量具有类似军事和民用功能的吉普衍生品已经在其他国家创造出来，其总体性能也在不断换代升级。

20 世纪 50 年代，发动机的动力越来越大，汽车的速度越来越快，汽车的设计越来越完整，车型更加美观，汽车正遍及世界的每个角落。然而，20 世纪 60 年代，底特律面临来自其他国家的竞争，欧洲汽车制造商采用最新科技，日本加入了汽车制造的行列，情况发生了变化。通用（General Motors）、克莱斯勒（Chrysler）和福特都涉足生产微小型汽车，如通用汽车的 A 型车身，但收效甚微。由于英国汽车公司（British Motor Corporation）等合资企业统一市场，限制进口和进口汽车品牌的现象在美国和英国盛行。英国汽车公司在 1959 年首次推出了一款空间节约型的小轿车，这款汽车在全球的销量十分可观。以前，这款小轿车打着英国两大汽车品牌奥斯汀和莫里斯的旗号，但在 1969 年，它成为一个独立的汽车品牌。当玛莎拉蒂（Maserati）、法拉利（Ferrari）、蓝旗亚（Lancia）等著名的汽车品牌被更大的汽车企业收购时，企业合并

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 **come-back** 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 of 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.

的趋势席卷意大利。到 20 世纪末，意大利的汽车品牌数量急剧下降。

在美国，汽车性能在市场营销中占据主要地位，其中小型轿车和动力足的汽车比较受消费者青睐。然而，由于 20 世纪 70 年代的石油危机、来自欧洲和日本汽车制造商的竞争、控制汽车尾气排放等规章制度以及缺乏创新等因素，一切都改变了，美国的汽车工业受到重创。但是比较讽刺的是，凯迪拉克（Cadillac）和林肯（Lincoln）这样全尺寸型轿车的销量在经济危机的几年中取得了巨大回升。

在技术方面，二战后最值得一提的发展包括汽车广泛采用独立悬架、汽油喷射技术的广泛运用以及更加注重汽车设计的安全性能问题。马自达（Mazda）汽车就是其中之一，它首次采用了转子发动机，驱动前轮转动，但是马自达汽车也因此获得了“油老虎”的名声。

现代计算机技术极大地提高了现代发动机管理系统的燃油功率。现在，大多数汽车都依靠消耗汽油或柴油的内燃机驱动。这两种燃料排放的有毒气体会污染空气，导致气候变化和全球变暖。

## 词汇详解

### · 第 1 段 ·

carrier /'kæriə(r)/ *n.* 运输工具  
 batch /bætʃ/ *n.* 批  
 power /'paʊə(r)/ *v.* 为……提供动力  
 internal /ɪn'tɜːnl/ *adj.* 内部的  
 combustion /kəm'bʌstʃən/ *n.* 燃烧  
 come into being 存在  
 pioneer /ˌpaɪə'niə(r)/ *v.* 倡导  
 widespread /'wɜːdspred/ *adj.* 广泛的

### · 第 2 段 ·

acknowledge /ək'nɒlɪdʒ/ *v.* 认可  
 attain /ə'teɪn/ *v.* 获得  
 patent /'pætnt/ *n.* 专利  
 renowned /rɪ'naʊnd/ *adj.* 著名的

### · 第 3 段 ·

march into 进入  
 adventurous /əd'ventʃərəs/ *adj.* 有冒险精神的  
 bunch /bʌntʃ/ *n.* 伙, 群  
 enclosed /ɪn'kləʊzd/ *adj.* 封闭的  
 convertible /kən'vɜːtəbl/ *adj.* 有折篷的  
 identity /aɪ'dentəti/ *n.* 身份  
 status /'steɪtəs/ *n.* 地位  
 attribute /ə'trɪbjʊt/ *v.* 把……归因 / 归功于  
 crucial /'kruːʃl/ *adj.* 至关重要的  
 reasonable /'riːznəbl/ *adj.* (价钱) 公道的

### · 第 4 段 ·

interchangeable /ˌɪntə'tʃeɪndʒəbl/ *adj.* 可互换的  
 part /pɑːt/ *n.* 零件

assembly /ə'sembli/ *n.* 组装  
 significantly /sɪɡ'nɪfɪkəntli/ *adv.* 显著地  
 reinforce /ˌrɪːn'fɔːs/ *v.* 加强  
 affordable /ə'fɔːdəbl/ *adj.* 多数人支付得起的  
 debut /'deɪbjʊː/ *v.* 首次推出  
 assemble /ə'sembl/ *v.* 组装  
 interval /'ɪntəvl/ *n.* 时间间隔  
 productivity /ˌprɒdʌk'tɪvəti/ *n.* 生产力  
 manpower /'mænpaʊə(r)/ *n.* 劳动力  
 lower /'ləʊə(r)/ *v.* 降低, 减少  
 complicated /'kɒmplɪkətɪd/ *adj.* 复杂的  
 assign /ə'saɪn/ *v.* 分配

### · 第 5 段 ·

prototype /'prəʊtətaɪp/ *n.* 原型  
 ally /'ælaɪ/ *n.* (二战时的) 同盟国  
 skyrocket /'skaɪrɒkɪt/ *v.* 猛涨  
 derivative /dɪ'rɪvətɪv/ *n.* 衍生品  
 military /'mɪlətri/ *adj.* 军事的  
 civilian /sə'vɪliən/ *adj.* 民用的  
 upgrade /'ʌpgreɪd/ *v.* 使升级

### · 第 6 段 ·

evolve /i'vɒlv/ *v.* 逐步发展  
 integrated /'ɪntɪɡreɪtɪd/ *adj.* 综合的  
 artful /'ɑːtfl/ *adj.* 巧妙的  
 landscape /'lændskeɪp/ *n.* 局面  
 confront /kən'frʌnt/ *v.* 面临  
 come into the picture 出现, 形成  
 dedicated /'dedɪkeɪtɪd/ *adj.* 专用的  
 dabble /'dæbl/ *v.* 涉足  
 radical /'rædɪkl/ *adj.* 彻底的, 重大的

joint venture 合资企业

unify /'ju:nɪfaɪ/ v. 使成一体

captive /'kæptɪv/ *adj.* (市场) 被垄断的

revolutionary /ˌrevə'lʊ:ʃənəri/ *adj.* 革命性的

harvest /'hɑ:vɪst/ v. 收获

marque /mɑ:k/ *n.* 型号, 牌子

consolidation /kən,sɒlɪ'deɪʃn/ *n.* 合并

niche /ni:ʃ/ *adj.* 专营市场的

enterprise /'entəpraɪz/ *n.* 公司, 企业

### · 第 7 段 ·

dominate /'dɒmɪneɪt/ v. 占据支配地位

justify /'dʒʌstɪfaɪ/ v. 证明

regulation /ˌregju'leɪʃn/ *n.* 法规, 条例

moribund /'mɒrɪbʌnd/ *adj.* 停滞不前的

sedan /sɪ'dæn/ *n.* 轿车

score /skɔ:(r)/ v. 赢得

comeback /'kʌmbæk/ *n.* 再度流行

### · 第 8 段 ·

mentionable /'mentɪnəbəl/ *adj.* 值得提的

suspension /sə'spenʃn/ *n.* (车辆减震的)

悬架

fuel injection 燃油喷射

reputation /ˌrepju'teɪʃn/ *n.* 名声

### · 第 9 段 ·

witness /'wɪtnəs/ v. 见证

elevation /ˌelɪ'veɪʃn/ *n.* 提高

diesel /'di:zl/ *n.* 柴油

pollute /pə'lʊ:t/ v. 污染

Reading Passage 3. Elephant Communication

文章结构

体裁	说明文
主要内容	本文主要介绍了大象是如何利用低频的次声波进行远距离交流的。
结构	第 1 段：提出新发现：大象能够感知次声波。 第 2 段：原因之一：可能与大象特殊的耳朵结构有关。 第 3 段：其他原因：体形、趾骨和大脑构造。 第 4 段：感知次声波的原理：象鼻和脚的作用。 第 5 段：这一发现的意义。 第 6 段：大象感知次声波的作用：觅偶和预警。 第 7 段：大象感知次声波的途径：地面。 第 8 段：实验验证大象对三种不同录音的反应。

题目详解

Questions 28-31

思路

本部分为图表填空题，为雅思阅读题型中比较简单的题型，需要结合对图表信息的理解和原文内容进行解题。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。答案一般为原文原词，个别情况需要变换形式。做题时建议考生先看清题目要求字数并预判词性，然后阅读题干并画出题干关键词，接着通过关键词回到原文定位，必要时通过同义替换确认要填写的答案。

解答

28. 题干让我们寻找大象内耳中的一种骨头。空白处应该填修饰 bones 的名词或形容词。通过题干关键词 inner ear 定位到第 2 段第 2 句 “The hammer bone in an elephant’s inner ear is...”。因此，本题的答案为 hammer。
29. 题干让我们寻找大象身体中一个非常大的地方。空白处应该填单数名词。依据顺序原则，继续往下读，在第 3 段第 2 句发现 “First, their massive bodies, which enable them...”，这里 massive 和题干 extremely large 为同义替换，其所修饰名词即为答案。因此，本题的答案为 body。
30. 题干让我们寻找和脚趾并列的一个肥胖的部位。空白处应该填名词，无单复数限制。通过题干关键词 toe 定位到第 3 段第 3 句 “Second, the elephant’s toe bones are set on a

fatty pad...” , fatty 一词重现。因此, 本题的答案为 pad(s)。

31. 题干让我们寻找大尺寸的脑骨中有很多什么。空白处应该填名词复数。通过题干关键词 brain skull 定位到第 3 段倒数两句话, 这两句是在描述大象的大脑及其他构造, 难点在于出现了多个专有名词短语, 比如 cranial cavity (颅腔)、auditory canal (听道)、sinus cavities (鼻窦)。在不认识这几个词的情况下, 可通过排除来确定答案。题干 many 一词已提示要填写的这个名词是复数形式, 且存在于 brain skull 中; 原文 be riddled with 意为“充满”, 对应题干 with many。因此, 本题的答案为 sinus cavities。

### Questions 32-38

#### 思路

本部分为摘要填空题, 为概括总结型题目, 在雅思阅读中难度适中。该题型着重考查对原文一段或几段甚至全文的大意补充完整。句与句之间在原文中跨度可能略大, 基本遵循顺序原则 (偶尔会出现乱序), 所以如果关键词处找不到答案, 可向上或向下多读几句; 概括总结题逻辑性很强, 也可从题目上下文推断是否有并列、转折、因果或比较等关系, 以此帮助快速找到答案。

做题之前, 建议通读一下摘要, 了解一下大致内容, 并锁定摘要在文中的起始位置。然后一道一道边画关键词或定位词, 边回文中寻找相应的描述, 通过同义替换或理解意思确定答案, 答案一般为原文原词。

#### 解答

32. 题干: O'Connell-Rodwell 提出大象使用什么来“听”。这一道题与下一题相隔较近, 通过题干 nerve endings 可定位到第 4 段第 4 句, 由于顺序原则, 本题的答案应该会出现于这一句之前。往前读, 发现 are 'listening' with 原词重现, pachyderm (厚皮动物) 在这里指的是大象, 该动词之后的名词即为答案。因此, 本题的答案为 trunks and feet。
33. 题干: ……通过两种神经末梢来对震动产生反应, 一种对什么频反应, 一种对相对高频的反应。同样通过 nerve endings 定位到第 4 段第 4 句, two types of 对应题干 two kinds of, 其后破折号之后的内容正是题干的问题。其中, vibrations higher in frequencies 对应 slightly higher frequencies, 与其并列的 infrasonic vibration 对应题干 \_\_\_\_\_ frequency。空白处填一个形容词即可, 省去 vibration。此外, 原文第 1 段最后 1 句提到: ...low-frequency sounds, also known as infrasounds, 所以空白处填 low 也不算错。因此, 本题的答案为 infrasonic/low。
34. 题干: O'Connell-Rodwell 的工作结合了地球物理学、神经生理学和什么。通过题干可判断, 空白处应该也是一门学科名称。通过专有名词 geophysics 和 neurophysiology 很容易定位到第 4 段的最后, 寻找与这两个学科并列的名词即可。因此, 本题的答

案为 ecology。

35. 题干：O'Connell-Rodwell 是第一个提出大型陆地动物也可以收发什么的人。继上一题接着往下读，nevertheless 对应 but，这里出现了转折关系。题干 would send and receive...too 对应原文 is also sending and receiving，其后名词即为答案。因此，本题的答案为 seismic signals。
36. 题干：这个例子或许证实了除什么之外其他交流方式的存在。题干让填写一种交流方式。通过题干 planthopper 定位到第 5 段引号中的例子。在最后指出，“或许这不仅仅是听觉交流上的事”，原文 is not the only thing 对应题干 other communicative approaches besides，句子的主语即为答案。因此，本题的答案为 auditory communication。
37. 题干：科学家断定，象群在找什么或警示捕食者来袭时，远距离的沟通能力特别重要。根据顺序原则，继续阅读第 5 段之后的内容。第 6 段的开头提到大象远距离沟通的能力对于生存十分必要。紧接着便提到，大象在寻找配偶 (mate) 时比较困难，而大象独特的生殖学特征使之难上加难。题干后半句 are warning of predators 在文中被改写为 send alerts regarding predators。因此，本题的答案为 mate。
38. 题干：最后，2002 年的研究结果说明，大象可以通过什么来探测警报声。通过题干关键词 2002 study 可以定位到第 7 段最后 1 句。其中原文 outcomes 对应题干 results，revealed 对应 showed，sense 对应 detect，through 重现。因此，本题的答案为 ground。

### Questions 39 and 40

#### 思路

本部分为单项选择题，是雅思阅读中难度较高的题型之一。该题难点在于部分题目需要对细节进行理解和分析，同时选项可能会出现干扰。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。

#### 解答

39. 题干：根据原文，大象在什么情况下，为了生存需要进行远距离的交流？这道题的考点与 37 题有所重复，做那一题时，我们便知道大象远距离交流一般是出于两个目的，要么是为了找配偶，便于繁殖，要么是为了警告捕食者的来袭。四个选项中 A 选项符合第 2 个目的。注意 D 选项“雄性大象在发情期时”为干扰项，文中提到了大象在找配偶时，所以不管是雄性还是雌性大象都会这么交流。因此，本题的答案为 A。
40. 题干：在最后 1 段，作者对于使用三种不同录音做实验的态度是什么？这道题有一定难度，重点在于理解作者的态度。在原文最后 1 段第 2 句，作者用了三种声音测试，其中两种符合她最初的预期，原话是 “The data I've observed to this point implies that the elephants were responding the way I always expected”，可排除 A 选项和 B 选项。紧接着 however 预示转折，第 2 种来自肯尼亚的录音有一个出乎意料的发现。接着

往下读寻找作者的态度, 最后 1 句 “I didn’t expect the results to be that clear-cut”, 意为 “我压根没想到结果会这样”, 即结果可能不是很明确, 对应 C 选项。D 选项故意混淆概念, 文中出现了 unfamiliar, 但却是说大象对肯尼亚的这种声音不熟悉。因此, 本题的答案为 C。

## 参考译文

### 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

### 象群的交流

奥·康奈尔-罗德威尔 (O’ Connell-Rodwell) 是斯坦福大学的一位博士后, 她曾在纳米比亚第一个野生动物保护区做研究, 探寻大象神秘且复杂的交流方式。她和同事一起参与了近 20 年前开始的一场科学革命。这场革命揭示了一个惊人的现象: 大象能够远距离运用低频的声音来彼此交流, 这种声音叫作次声, 由于频率很低, 人类无法听到这种声音。

正如我们所料, 非洲大象捕获地震波的能力可能和它们的耳朵有关。大象内耳中的锤骨要比哺乳类动物的大, 但是对于运用震动来传达信息的动物来说, 这种大小则比较平常。因此, 这可能表示大象可以运用地震波来交流。

大象的生理结构同样也证明了它们具有这种能力。首先, 它们拥有巨大的身型, 这使它们能够发出低频的声音, 这种声音几乎和飞机起飞时发出的声音一样有力, 而大象巨大的身体能够很好地感知地面震动, 并将其传入内耳。其次, 大象的趾骨长在厚重的脚掌中, 这能帮助它们将地面传来的震

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 **utilisation encompasses** drinking, bathing, smelling, feeding and **scratching**. Both trunk and feet contain two types of **nerve endings** that are **sensitive** to pressure—one detects infra-sonic 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.

动传递到骨头中。最后，大象的大脑很大，位于眼睛后方的颅腔内，与听道平行。头骨的前部是鼻窦，它们会形成地面震动的共鸣腔。

至于大象是如何感知这种震动的，至今还没有明确的解释。但是罗德威尔提出，这类厚皮动物并非利用耳朵来听，而是用象鼻和四肢去感受。象鼻可能是自然界最灵活的动物器官，它能喝水、洗澡、闻气味、喂食以及抓东西。大象的鼻和脚都有两种对压力很敏感的神经末梢，一种用来感应次声振动波，另一种用来回应频率较高的振动波。罗德威尔认为这项研究对未来的指导意义很大。她说：“我们的工作涉及多个领域，包括地球物理学、神经生理学以及生态学。我们现在提出的问题都是前人没有思考过的。”

科学家们都知道许多小型动物都会运用振动波来交流，比如蜘蛛、蝎子、昆虫以及大量的脊椎类动物，比如白唇蛙、盲目鼯鼠、长鼻袋鼠以及金鼯鼠。然而，罗德威尔首次指出大型陆栖动物同样也会收发振动波信号。她说道：“我曾将一只雄性飞虱放在一根茎干上，然后回放雌性的声音，雄性飞虱就会做出和大象相同的行为——它会停下不动，弯下腿，稍稍向前移动，然后再次静止。我觉得这特别神奇，它让我想到也许这不只是听觉上的交流。”

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 ele-

科学家证实大象远距离的交流能力对它们的生存起到了至关重要的作用,尤其是在像埃托沙(Etosha)这样的地方(大小超过整个新泽西),这里生存着热带稀树大草原的2400头大象。对于大象来说,在这样一个辽阔的地方很难找到配偶,而大象独特的生殖结构使其难上加难。兽群也会采用低频声音来提醒同伴周围有捕食者。即使成年象除了人类以外再无天敌,但幼象还是很弱小,容易被狮子和土狼袭击。一看到捕食者,成年象便会聚在一起形成保护,以便逃跑。

我们已经知道了大象会对远处传来的警报作出回应,但是它们可以察觉仅从地下传来的信号吗?为了弄清这个问题,调查组在2002年设计了一项实验,通过电子设备从穆沙拉(Mushara)地下发出信号。罗德威尔观察出:“结果显示,大象的确能感知到地下传来的危险警告。”

去年,为解决这一问题设置了一项实验。实验使用了三种录音,一种是1994年在穆沙拉收集到的警报,一种是科学家乔伊丝·卜尔(Joyce Poole)在肯尼亚收集到的预警信号,另一种是人为的低昂音。罗德威尔说:“从目

phants 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**.'

前收集到的数据来看,大象的确如我想象的那样能作出回应。但令人惊讶的是,它们在听到肯尼亚的预警信号后先是紧张地聚集在一起,因为这是它们不熟悉的声音,然后它们开始发出低声的咆哮,但它们并没有每次都逃跑。我压根没想到实验结果会这样。”

## 词汇详解

### · 第 1 段 ·

postdoctoral /ˌpəʊst'dɒktərəl/ *adj.* 博士后的  
fellow /'feləʊ/ *n.* 研究生  
first-ever /ˌfɜːst 'evə(r)/ *adj.* 第一次的, 前所未有的  
wildlife reserve 野生动物保护区  
complicated /'kɒmplɪkeɪtɪd/ *adj.* 复杂的  
realm /reɪlm/ *n.* 领域  
stunning /'stʌnɪŋ/ *adj.* 惊人的  
revelation /ˌrevə'leɪʃn/ *n.* (惊人的、极好的) 发现; 揭露  
low-frequency /ləʊ'fri:kwənsi/ *adj.* 低频的  
infrasound /ˌɪnfərəsaʊnd/ *n.* 【声】次声

### · 第 2 段 ·

detect /drɪ'tekt/ *v.* 察觉  
seismic /'saɪzmɪk/ *adj.* 地震的  
hammer bone 锤骨  
proportionally /prə'pɔːʃənli/ *adv.* 相应地, 成比例地  
mammal /'mæml/ *n.* 哺乳动物  
vibrational /vaɪ'reɪʃnl/ *adj.* 振动的  
signal /'sɪgnəl/ *n.* 信号

### · 第 3 段 ·

anatomy /ə'neɪtəmi/ *n.* 生理结构  
jet /dʒet/ *n.* 喷气式飞机  
takeoff /'teɪk ɒf/ *n.* 起飞  
ground vibration 地面震动  
transmit /træns'mɪt/ *v.* 传输  
toe /təʊ/ *n.* 脚趾  
fatty /'fæti/ *adj.* 多脂肪的  
pad /pæd/ *n.* 肉掌, 爪垫  
enormous /ɪ'nɔːməs/ *adj.* 巨大的  
cranial cavity 颅腔  
auditory canal 听道, 耳道  
skull /skʌl/ *n.* 头盖骨  
be riddled with... 充满……  
sinus cavity 鼻窦腔  
function /'fʌŋkʃn/ *v.* (作为某物) 起作用  
resonating /'rezənɪt/ *adj.* 产生共鸣的  
chamber /'tʃeɪmbə(r)/ *n.* (身体或器官内的) 室, 腔

### · 第 4 段 ·

pachyderm /'pækɪdɜːm/ *n.* 厚皮类动物  
trunk /trʌŋk/ *n.* 象鼻  
versatile /'vɜːsətəl/ *adj.* 多功能的  
appendage /ə'pendɪdʒ/ *n.* 附肢

utilisation /ˌju:təlaɪ'zeɪʃn/ *n.* 利用, 使用  
 encompass /ɪn'kʌmpəs/ *v.* 包含  
 scratch /skrætʃ/ *v.* 抓挠  
 nerve ending 神经末梢  
 sensitive /'sensətɪv/ *adj.* 灵敏的  
 boundless /'baʊndləs/ *adj.* 无限的  
 unpredictable /ˌʌnpɪrɪ'dɪktəbl/ *adj.* 不可预知的  
 interface /'ɪntəfeɪs/ *v.* 相互作用或影响  
 geophysics /ˌdʒi:əʊ'fɪzɪks/ *n.* 地球物理学  
 neurophysiology /ˌnjuərəʊfɪzi'ɒlədʒi/ *n.* 神经生理学  
 ecology /i'kɒlədʒi/ *n.* 生态学

· 第 5 段 ·

vertebrate /'vɜ:tɪbrət/ *adj.* 脊椎动物的  
 white-lipped frog 白唇蛙  
 mole rat 鼯鼠  
 kangaroo rat 长鼻袋鼠  
 golden mole 金鼯鼠  
 stem /stem/ *n.* 茎, 干  
 exhibit /ɪg'zɪbɪt/ *v.* 表现出  
 freeze /fri:z/ *v.* 呆住不动  
 fascinating /'fæsɪneɪtɪŋ/ *adj.* 吸引人的  
 auditory /'ɔ:dətri/ *adj.* 听觉的

· 第 6 段 ·

confirm /kən'fɜ:m/ *v.* 证实  
 savanna /sə'vænə/ *n.* 热带草原

range /reɪndʒ/ *v.* 漫步  
 mate /meɪt/ *n.* 配偶  
 reproductive /ˌrɪ:prə'dʌktɪv/ *adj.* 生殖的  
 complicate /'kɒmplɪkeɪt/ *v.* 使复杂化  
 breeding herd 兽群  
 adopt /ə'dɒpt/ *v.* 采取  
 predator /'predətə(r)/ *n.* 捕食者  
 vulnerable /'vʌlnərəbl/ *adj.* 易受攻击的  
 susceptible /sə'septəbl/ *adj.* 易受影响的  
 hyena /haɪ'i:nə/ *n.* 土狼  
 at the sight of 一看见……就  
 clump together 聚集

· 第 7 段 ·

look into 调查  
 reveal /rɪ'vi:l/ *v.* 显示

· 第 8 段 ·

made-up /'meɪd ʌp/ *adj.* 人造的  
 warble /'wɔ:bl/ *n.* 鸟鸣  
 imply /ɪm'plaɪ/ *v.* 意味着, 暗指  
 tense up 紧张  
 rumble /'rʌmbl/ *v.* 吵嚷  
 aggressively /ə'ɡresɪvli/ *adv.* 挑衅地; 攻击性地  
 flee /fli:/ *v.* 逃跑  
 clear-cut /ˌkliə 'kʌt/ *adj.* 明确的



## Reading Passage 1. History of Refrigeration

### 文章结构

体裁	说明文
主要内容	本文介绍了制冷的发展史。
结构	第1段：制冷的定义。 第2段：之前人们保存食物的方法。 第3段：人们对冰块的需求不断增长。 第4段：干净的制冷系统的必要性。 第5段：各种制冷设备的发明和创造。 第6段：冷藏运输的发展。 第7段：制冷系统安全性的改善。

### 题目详解

#### Questions 1-5

#### 思路

本部分为时间与事件配对题，要求将所发生的事件与其时间进行匹配。解答本题时，可以在文中先画出选项的这三个时间范围，再画出相应时间附近所发生的事件，将其与题干关键信息进行比对，意思相同的或关键词对应上的即为答案。必要时进行同义替换。

#### 解答

1. 题干：装有冰箱的车辆用于公路运输。关键词 vehicles with refrigerator、used to transport on the road。
2. 题干：冰块第一次销售遍布美国。关键词 ice、sold around the United States、for the first time。

3. 题干：某种化学制冷剂被发现对大气有害。关键词 chemical refrigerant、harmful to the atmosphere。
4. 题干：“冰箱”一词首次出现。关键词 refrigerator、firstly introduced。
5. 题干：添加一些化学物质来冷藏葡萄酒。关键词 chemicals、were added to、refrigerate wine。

在画完题干的 key information 之后，我们以时间为定位词，分别去文中寻找各时间出现在文中的位置，并画出附近提到的所有的事件。具体如下：

**A 1550:** 出现于第 2 段中间部分。这句话是说在 1550 年，当这项技术被首次记录下来时，人们便开始用它来冷藏葡萄酒，那这项技术指的是什么呢？往前读一句发现，这项技术指的就是往水里添加诸如硝酸钠或硝酸钾等化学物质会使温度降低。其中 adding such chemicals as sodium nitrate or potassium nitrate 对应 5 题题干的关键词 chemicals, adding、used...to cool wine 对应 were added to refrigerate wine。因此，5 题的正确答案为 A。

**B 1799:** 出现于第 3 段第 4 句。这句话是说在 1799 年，冰块作为商品首次从纽约的运河街运输至南卡罗来纳州的查尔斯顿。其中 was first transported out of Canal Street in New York City to Charleston, South Carolina 对应 2 题的关键词。因此，2 题的正确答案为 B。

**C 1803:** 出现于第 1 段的最后 1 句。显然，4 题的题干关键词基本在原文重现，firstly introduced 对应 first introduced。因此，4 题的正确答案为 C。

**D 1840:** 出现于第 6 段第 1 句。这句话是说自 1840 年之后，带有制冷系统的小轿车开始用于运输和配送牛奶和黄油。其中 cars with the refrigerating system 对应 1 题题干关键词 vehicles with refrigerator...on the road, had been utilised to deliver and distribute 对应 was used to transport on the road。因此，1 题的正确答案为 D。

**E 1949:** 出现于第 6 段倒数第 1 句。这句话是说直到 1949 年，卡车运输业才开始装配制冷系统。与 3 题题干关键词对照后并不对应，可排除。

**F 1973:** 在排除 E 之后，F 自然成为 3 题的答案选项。不过为了确认信息是否对应，去文中寻找 1973 出现的位置，发现它出现在第 7 段中后段。该时间出现位置有转折，意思是说氟利昂对周围的人群无害，但 1973 年发现其对臭氧层有害。其中 was discovered to have detrimental effects on 为 3 题题干 was found harmful to 的改写，the ozone layer 对应 the atmosphere，题干所说的 some kind of chemical refrigerant 指的就是原文提到的 Freon。因此，3 题的正确答案为 F。

## Questions 6-10

## 思路

本部分属于人名与观点或事迹配对题，要求将观点或事迹与其对应的人名进行匹配。该题型通常会出现两类范畴：题干为观点或事迹（比如研究发现、发明创造等）；选项为人名（或国名、机构名称等）。通常不以文章顺序出现。

做题时，首先画出题干中的关键信息（浓缩题干大意的名词、动词、形容词或容易定位的词汇），然后在文中找出选项中的大写人名，随后标记每个人名出现附近的所有观点或行为，最后将这些观点或行为与题干的关键信息比对，意思相同的或关键词对应上的即为答案。

## 解答

6. 题干：在有轨电车上安装制冷系统的想法获得专利。关键词 patented、refrigerating system、installed on tramcars。
7. 题干：发明了一种可以省钱和时间的切割冰块技术。关键词 ice-cutting、save money and time。
8. 题干：使冷藏技术应用于水果储存。关键词 cold storage technology、applied in fruit。
9. 题干：发明了一种应用于卡车运输行业的冷却装置。关键词 cooling device、the trucking industry。
10. 题干：创造了一种使空气液化的新技术。关键词 liquefy the air。

在画完题干的关键信息之后，我们以人名为定位词，分别去文中寻找各人名出现在文中的位置，并画出附近提到的所有发明和观点。具体如下：

**A Thomas Moore:** 出现于第 1 段最后 1 句。文中提到他是马里兰的一个农民，首次提出了“冰箱”这个词。与各题关键信息对照，无对应信息，可排除。

**B Frederick Tudor:** 出现于第 3 段中间。往后扫读，看到这个人致力于将冰带到热带地区尝试了许多隔热材料，最终成功地建造了冰容器，大大地降低了冰损耗。与各题关键信息对照，无对应信息，可排除。

**C Carl Von Linde:** 出现于第 5 段后半部分。文中提到他设计了第一台实用的便携式带压缩机的冰箱，他后来利用一种新的方法（被称为“林德技术”）去液化空气。其中 a new method 对应 10 题题干关键词 a new technique, liquefying large amounts of air 对应 liquefy the air。因此，10 题的正确答案为 C。

**D Nathaniel Wyeth:** 同样出现于第 3 段中间，B 选项人名之后。文中提到他发明了一种经济且快速地将冰块切成一样大的方法，还改善了储存、运送冰块的处理技术，将 B 选项提到的冰损耗降至更低。其中 an economical and speedy method to cut the ice into

uniform blocks 对应 7 题的关键词 ice-cutting、save money and time。因此，7 题的正确答案为 D。

**E J.B. Sutherland:** 出现于第 6 段第 3 句。文中提到他获得了冷冻有轨电车的专利，并发明了隔热车。其中 refrigerated railroad cars are patented to 对应 6 题的关键词 patented、refrigerating system、installed on tramcars。因此，6 题的正确答案为 E。

**F Fred Jones:** 出现于第 6 段的最后。文中提到卡车运输行业开始安装制冷系统，每辆车的顶部都装有制冷设备，这个制冷设备正是他发明的。其中 9 题的关键词 cooling device、the trucking industry 原文重现。因此，9 题的正确答案为 F。

**G Parker Earle:** 同样出现于第 6 段。文中提到他生产了第一辆运送新鲜水果的冷冻车，这辆车可以在中央铁轨上运输草莓。其中 8 题的关键词 fruit 重现，具体指的就是草莓。因此，8 题的正确答案为 G。

### Questions 11-14

#### 思路

本部分为结尾句配对题，是雅思考试中难度适中的一种题型。虽为配对题，但题目遵循顺序原则。有时，定位词非常不明显，或已经被同义替换掉，需要通过理解句子的内容去寻找后半句。在做题之前可以仿照选择题的做法，只读题干不读选项，并画出题干可帮助定位的关键词，定位至某段后扫读上下文，与 4 个选项比对，从上至下排除即可。

#### 解答

11. 题干：在 1830 年与美国内战之间出现的健康饮食的变化与什么相关。题干关键词为 a healthy dietary change、between 1830 and the American Civil War。通过时间词定位很容易定位到原文第 3 段第 2 句：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...，其中 dieting habits 对应题干 a healthy dietary change，显然，是人们对于新鲜食物尤其绿色蔬菜的需求上涨导致了饮食习惯的变化。因此，本题的答案为 B。
12. 题干：城市化发展可能会导致什么。题干关键词为 urbanisation，但在文中具体被替换为 the growth of the cities and towns，位于上一题出现之后：With the growth of the cities and towns, the distance between the consumer and the source of food was enlarged. 这句话是说由于城市化进程的加速，食物与消费者之间的距离加大了，下文接着写运输的距离也在变大，对应 D 选项的关键词 long distance。因此，本题的答案为 D。
13. 题干：水处理引发的问题致使什么。题干关键词为 water treatment，据此定位到第 4 段第 2 句：To make it worse, by the 1890s water pollution and sewage dumping made

clean ice even more unavailable. 这个问题指的就是干净冰块越发难求, 最终的结果是什么呢? 这段的最后一句 as a result 给出了答案, 即越来越需要干净的机械制冷设备了。扫读剩下的三个选项, 只有 E 选项符合这道题目。因此, 本题的答案为 E。

14. 题干: 冷藏对环境的破坏带来的风险会导致什么。题干关键词为 environmental devastation, 通过做之前的题目, 也可以大概猜到这里说的对环境破坏就是指氟利昂对臭氧层破坏。剩下的两个选项定位词很明显分别为 Hydrofluorocarbons 和 chlorofluorocarbons (Freon), 都出现于原文最后 1 段, 扫读这两个词出现位置的描述。原文在提到氟利昂会对臭氧层造成破坏之后说, 又找到了新的替代物质用于冷藏, 目前没有发现危害。其中 new improvements 对应 A 选项 new developments。而 C 选项氟利昂发现的原因则是因为 Frigidaire 公司为找到一种新的合成制冷剂进行了一项研究。因此, 本题的答案为 A。

## 参考译文

### 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 meats. 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

### 制冷的历史

冷却是指降低高温的过程, 也就是将一个区域或一种物质的温度降低到环境温度之下。机械制冷是利用了液化制冷剂的气化过程; 在这一过程中, 制冷剂循环流动, 因此可以反复利用。整个循环过程包括气体压缩、吸收、气态喷射以及通风等几个环节。“冰箱”这一词汇最初是在 1803 年由一个马里兰的农民托马斯·莫尔 (Thomas Moore) 提出的, 但直到 20 世纪, 我们今天所熟知的冰箱这一设备才首次出现。

机械制冷系统发明之前, 人们有多种方法储存食物。一些人更喜欢利用冰或雪的冷却特质来储存食物, 这意味着这些食物很少是新鲜的食物、水果和蔬菜, 更多的是面包、奶酪和腌肉。对于牛奶和奶酪而言, 很难使其保持新鲜, 所以这些食物往往被储存在地窖或窗台花箱。尽管采取了这些措施, 它们还是会迅速地腐坏。后来, 人们

of those measures, they could not **survive** rapid **spoilage**. Later on, people discovered that adding such chemicals 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 drinks 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

发现在水中添加诸如硝酸钠或硝酸钾等化学物质会导致温度降低。1550年,这一方法首次被记录下来,人们用它来冷却葡萄酒,就像“冷藏”这个词一样。直到1600年,冰镇饮料在欧洲非常流行,特别是在西班牙、法国和意大利。人们用一种新方法取代了在夜晚使水冷却:用装有溶解的硝石的长颈瓶在水里旋转来使水冷却。这一方法的目的在于创造非常低的温度,甚至为了制造冰块。到17世纪末,冰饮料包括冷冻果汁和烈酒在法国成为一种时尚。

人们对冰块的需求迅速上涨。消费者对于新鲜食物,尤其是绿色蔬菜的诉求不断增加,这导致在1830年至美国内战期间,人们的饮食习惯发生了变革。与此同时,城市的面积不断扩大,民众经济条件不断改善,同样也加速了人们对新鲜食材的需求。随着城镇的发展,消费者和食物产地之间的距离不断扩大。1799年,冰块作为一种商品,首次从纽约的运河街运输至南卡罗来纳州的查尔斯顿。但这次运输并不成功,因为当轮船抵达目的地时,冰块已所剩无几。弗雷德里克·图德(Frederick Tudor)和纳撒尼尔·韦恩(Nathaniel Wyeth)是两位新英格兰的商人,他们抓住了冰块这个潜在的商机,并试着改进了运输中的储存方法。图德作为当时公认的“冰王”,一直致力于将冰块带到热带地区。为了实现这一目标并保证冰块安全地到达目的

**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 reduced 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

地,他在实验中尝试了很多种隔热材料,最后成功地创造出了冰容器,这一容器可以让冰的损耗从66%大幅降低到8%以下。韦恩还发明了一种经济快速的切割冰块的方法,这对制冰行业产生了重大影响。

此外,他还改善了储运和分配冰块的处理技术,使冰损耗变得更低了。逐渐地,人们开始意识到远距离运输冰块并没有之前想的那么干净,还会引起健康问题,进而致使人们寻找纯净的自然冰源的需求更为强烈。更糟的是,19世纪90年代的水污染和污水排放使干净的冰源更难得到。其负面的影响首次显现于酿造行业,之后又蔓延到肉类加工业以及奶制品行业。因此,人们对干净的机械制冷技术的需求越来越大。

许多发明家带着创造性的想法参与了制冷设备的发明,每一版发明都建立在之前发明的基础之上。威廉·卡伦(William Cullen)博士在1720年首次研究了真空状态下液体的蒸发。他利用乙醚在部分真空环境下沸腾的原理很快于1748年在格拉斯哥大学发明了第一台人造冰箱。美国发明家奥利弗·埃文斯(Oliver Evans)于1805年首次利用蒸汽替代液体设计了一台冰箱。尽管他的想法最终没能实现,但却被美国的一名内科医生约翰·哥里

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**

(John Gorrie) 采纳了, 于 1842 年制造了一台类似埃文斯发明的制冷机, 用于给佛罗里达医院一名黄热病人降温。直到 1851 年, 埃文斯获得了美国第一项机械制冷专利。1820 年, 伦敦人迈克尔·法拉第 (Michael Faraday) 首次利用液化氨水冷却。1859 年, 法国的费迪南德·卡雷 (Ferdinand Carre) 发明了第一代氨水冷却机。1873 年, 卡尔·冯·林德 (Carl von Linde) 在慕尼黑设计了第一台采用压缩机制冷的实用便携式冰箱。1876 年, 林德放弃了甲基醚系统, 开始使用氨循环。林德后来在 1894 年发明了一种将大量空气液化的新方法 ("林德技术")。近十年后, 芝加哥的肉类加工业采用了这种机械制冷法。

从 1840 年开始, 装有制冷系统的汽车用来配送牛奶和黄油。直到 1860 年, 大部分海鲜和奶制品才开始通过冷链物流运输。1867 年, 密歇根州底特律市的 J.B. 萨瑟兰 (J.B. Sutherland) 获得了有轨冷冻电车的专利, 他通过在汽车尾部安装冰仓, 发明了隔热汽车。在隔热车中, 空气会从顶部进入, 穿过冰仓, 通过重力在车内循环, 由不同数量的悬挂阀控制, 从而产生不同的空气温度。由于汽车运送的货物种类 (比如肉类、水果) 不同, 汽车的设计也呈多样化。1867 年, 伊利诺斯州的帕克·厄尔 (Parker Earle) 制造出了第一辆运送新鲜水果的冷藏车, 他在伊利诺伊的中央铁轨上运送草莓。每个箱子里装有 100 磅冰和 200 夸脱

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 (CFS) are no longer used; they are announced illegal in several places, making the refrigeration far safer than before.

草莓。直到 1949 年, 卡车运输业开始装配制冷系统, 车辆顶部都安装了弗雷德·琼斯 (Fred Jones) 发明的制冷设备。

从 19 世纪末到 1929 年, 冰箱使用有毒气体作为制冷剂, 包括氯甲烷、氨和二氧化硫。但是, 在 20 世纪 20 年代, 由于冰箱中氯甲烷泄露, 导致了大量的死亡事故。因此, 美国的一些公司开始寻求更加安全的制冷方法。Frigidaire 公司在 1928 年发现了一种新的合成制冷剂, 叫作卤化碳或 CFCs (氯氟化碳), 也就是氟利昂, 它很快就成了冰箱压缩机首选的制冷剂。氟利昂对于周边的人们来说很安全, 但在 1973 年, 人们发现它会对臭氧层造成损害。之后, 人们做出了新的改进, 将氟氯烃运用于制冷系统, 至今还没有发现它有任何弊端。如今, 人们已不再使用氟利昂, 它在一些地区已经得到法律禁止, 这大大提升了制冷的安全性。

## 词汇详解

### · 标题 ·

refrigeration /rɪˈfrɪdʒəˈreɪʃn/ *n.* 制冷

### · 第 1 段 ·

remove /rɪˈmuːv/ *v.* 去除

substance /ˈsʌbstəns/ *n.* 物质

mechanical /məˈkænikl/ *adj.* 机械的

evaporation /ɪˌvæpəˈreɪʃn/ *n.* 蒸发

liquid /ˈlɪkwɪd/ *adj.* 液体的

refrigerant /rɪˈfrɪdʒərənt/ *n.* 制冷剂

vapour /ˈveɪpə(r)/ *n.* 水蒸气

compression /kəmˈpreʃn/ *n.* 压缩

absorption /əb'sɔ:pʃn/ *n.* 吸收  
refrigerator /rɪ'frɪdʒəreɪtə(r)/ *n.* 冰箱  
appliance /ə'plaɪəns/ *n.* 家用电器

### · 第 2 段 ·

preserve /prɪ'zɜ:v/ *v.* 保存  
the advent of …… 的出现  
cellar /'selə(r)/ *n.* 地窖  
survive /sə'vaɪv/ *v.* 幸存  
spoilage /'spɔɪlɪdʒ/ *n.* 腐坏  
sodium nitrate 硝酸钠  
potassium nitrate 硝酸钾  
refrigerate /rɪ'frɪdʒəreɪt/ *v.* 冷藏, 冷冻  
rotating /rəʊ'teɪtɪŋ/ *adj.* 旋转的  
dissolve /dɪ'zɒlv/ *v.* 使溶解  
saltpeter /,sɔ:lt'pi:tə(r)/ *n.* 硝石 ; 硝酸钾  
liquor /'lɪkə(r)/ *n.* 酒

### · 第 3 段 ·

soar /sɔ:(r)/ *v.* 高涨  
accelerate /ək'seləreɪt/ *v.* 使……加快  
drastic /'dræstɪk/ *adj.* 激烈的  
expansion /ɪk'spænsən/ *n.* 扩大, 扩张  
amelioration /ə,mɪ:liə'reɪʃn/ *n.* 提高改善  
populace /'pɒpjələs/ *n.* 大众  
enlarge /ɪn'lɑ:dʒ/ *v.* 扩大  
acknowledge /ək'nɒlɪdʒ/ *v.* 认可  
tropical /'trɒpɪkl/ *adj.* 热带的  
insulating /'ɪnsjuleɪtɪŋ/ *adj.* 隔热的  
container /kən'teɪnə(r)/ *n.* 容器  
drastically /'dræstɪkli/ *adv.* 大幅度地  
speedy /'spi:di/ *adj.* 快速的  
uniform /'ju:nɪfɔ:m/ *adj.* 全部相同的  
distribute /dɪ'strɪbjʊt/ *v.* 分送

### · 第 4 段 ·

demanding /dɪ'mɑ:ndɪŋ/ *adj.* 要求高的  
sewage /'su:ɪdʒ/ *n.* 污水  
dumping /'dʌmpɪŋ/ *n.* 倾倒  
unavailable /ˌʌnə'veɪləbl/ *adj.* 难以获得的  
brewing /'bru:ɪŋ/ *n.* 酿造  
packing /'pækɪŋ/ *n.* 包装

### · 第 5 段 ·

initiate /ɪ'nɪʃieɪt/ *v.* 开始  
vacuum /'vækjuəm/ *n.* 真空  
employment /ɪm'plɔɪmənt/ *n.* 使用  
ethyl ether 乙醚  
conception /kən'sepʃn/ *n.* 设想  
put into practice 付诸实践  
adopt /ə'dɒpt/ *v.* 采纳, 采用  
physician /fɪ'zɪʃn/ *n.* 内科医师  
liquefy /'lɪkwɪfaɪ/ *v.* 液化  
ammonia /ə'məʊniə/ *n.* 氨  
portable /'pɔ:təbl/ *adj.* 便携式的  
abandon /ə'bændən/ *v.* 放弃  
subsequently /'sʌbsɪkwəntli/ *adv.* 随后

### · 第 6 段 ·

patent /'pætnt/ *v.* 得到……专利  
insulated /'ɪnsjuleɪtɪd/ *adj.* 隔热的  
install /ɪn'stɔ:l/ *v.* 安装  
bunker /'bʌŋkə(r)/ *n.* 大容器, 大箱子  
circulate /'sɜ:kjəleɪt/ *v.* 使循环, 使流通  
gravity /'grævəti/ *n.* 重力  
ship /ʃɪp/ *v.* 运送  
freight /freɪt/ *v.* 运送

### · 第 7 段 ·

employ /ɪm'plɔɪ/ *v.* 使用

toxic /'tɒksɪk/ *adj.* 有毒的

lethal /'li:θl/ *adj.* 致命的

leakage /'li:kɪdʒ/ *n.* 泄漏

detect /dɪ'tekt/ *v.* 发现

synthetic /sɪn'tetɪk/ *adj.* 合成的

prevailing /prɪ'veɪlɪŋ/ *adj.* 流行的, 普遍的

vicinity /və'sɪnəti/ *n.* 附近

detrimental /,detrɪ'mentl/ *adj.* 有害的

ozone layer 臭氧层

simultaneously /,sɪml'teɪniəsli/ *adv.* 同时地

## Reading Passage 2. Ancient People in Sahara

### 文章结构

体裁	说明文
主要内容	本文主要介绍了以 Sereno 为首的撒哈拉泰内雷沙漠地区的考古发现过程及对当地先民的考古研究。
结构	第 1 段：研究起源（2000 年）及泰内雷沙漠的概况。 第 2 段：首次发现古人骸骨的经过。 第 3 段：2005 年第二次研究，考古学家 Elena Garcea 加入其中。 第 4 段：第二次考古发现的收获和初步结论。 第 5 段：对第二次发掘物的时间确认。 第 6 段：2006 年第三次研究的收获和结论。 第 7 段：对第三次结论的争议和解释。

### 题目详解

#### Questions 15-18

#### 思路

本部分为是非无题，为雅思阅读题型中难度较低的题型之一。该题型主要考查题干细节信息与原文信息的关系，题目遵循顺序原则。在解题时，根据题干中的关键词找到原文中相关的同义替换词；如果题干与原文表述的信息一致，答案为 TRUE；如果题干与原文表述的信息矛盾，答案为 FALSE；如果题干信息在原文中并未出现或并不矛盾，答案为 NOT GIVEN。

#### 解答

15. 题干：在绿色撒哈拉发现的石刻照片跟其他地方发现的照片类似。题干的关键词为 Green Sahara、rock engravings。通过这两个关键词回原文定位，并没有找到关于石刻的相关描述。因此，本题的答案为 Not Given。
16. 题干：Tenere 沙漠是撒哈拉地区十分肥沃的地带。题干的关键词为 Tenere Desert、fertile。通过 Tenere Desert 定位到第 1 段第 1 句的末尾，接着往后读，文中提到：Tenere, one of the most barren areas on the Earth, is located on the southern flank of Sahara. 显然，这里的 barren 同题干所说的 fertile 意思截然相反，这道题属于典型的反义词替换。因此，本题的答案为 False。
17. 题干：Hettwer 是偶然发现了沙漠中的人体遗骸。题干的关键词为 Hettwer、by

chance。通过人名 Hettwer 可定位到第 2 段的开头,扫读之后的内容,发现了这句: When reaching the first slope of the dune, he was shocked by the fact that the dunes were scattered with many bones. 这句是说他惊奇地发现了一些散落着的骨头,但直到本段最后才提到这是人类的骨头: ...to my great surprise, they do not belong to the dinosaurs. They are human bones. 其中 was shocked by 和 to my great surprise 都体现出了题干 by chance 这个意思。因此,本题的答案为 True。

18. 题干: Sereno and Garcea 在研究撒哈拉先民之前曾合作过一些考古工作。题干的关键词为 Sereno and Garcea、have cooperated。通过人名很容易定位到第 3 段,这一段是对这两个人的背景介绍,扫读发现 But she did not know Sereno before this exploration, 提示在这次勘测之前,她不认识 Sereno 这个人。显然,题干所表达的意思与原文截然相反。因此,本题的答案为 False。

### Questions 19-21

#### 思路

本部分为简答题,为雅思阅读题型中比较简单的题型之一,主要考查考生在文章中提取相关信息的能力。题目遵循顺序原则,也就是说题目顺序与题目答案在原文出现的顺序一致。答案一般为原文原词,不需要考生自己总结或归纳。做题时建议考生先看清题目要求字数,然后阅读题干并画出题干关键词,通过关键词回到原文定位,必要时通过同义替换确认要填写的答案。

#### 解答

19. 题干: 在挖掘工作开始之前最初的那几周, Sereno and Garcea 制作了什么? 答案应该是一个名词成分。这道题通过人名定位再合适不过,可定位至第 4 段的开头: 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..., 其中 in the following three weeks 同义替换了题干 in the initial weeks, sketched 替换了 produce, 其后名词短语即为答案。因此,本题的答案为 a detailed map。
20. 题干: Sereno 把什么送到了研究中心? 答案应该是一个名词成分。通过人名 Sereno 和 research centre 可定位至第 5 段第 2 句,其中 a researching laboratory 替换了题干中的 the research centre。因此,本题的答案为 the teeth/teeth of skeletons。
21. 题干: 据估计,紧密聚拢在一起的较大埋葬品距今多少年了? 答案应该是一个时间词,注意扫读与数字相关的内容。通过题干关键词 the bigger tightly bundled burials 定位到第 5 段倒数第 2 句,这句先是提到较小的骨头可以追溯到 6000 年以前,但较大的这些大概有 9000 年的历史了。题干关键词在文中被替换为 the bigger compactly tied artefacts, 题干 estimated 对应原文 approximately。因此,本题的答案为 9000 years old。

**Questions 22-27****思路**

本部分为笔记填空题，类似摘要填空题，属于概括总结性题目，在雅思阅读中难度适中。题干基本遵循顺序原则（偶尔会出现乱序）。

做题时，如果有小标题，尽可能通过小标题定位和锁定笔记的起始段落。以本题而言，通过小标题 Kiffian 和 Tenerian 很容易定位到原文最后两段。然后，具体画出每道题目题干的关键词，带着关键词回文中寻找相应的描述，通过同义替换或理解意思确定答案，答案一般为原文原词。

**解答**

22. 题干：他们看起来热爱和平、比较勤劳，因为研究者在他们的头上和前臂上没有发现什么。空白处需要填写一个表示特征的名词。题干关键词为 heads and forearms，据此定位到倒数第 2 段：No injuries in heads or forearms indicate that they did not fight too much...，前一句中的 a people of peace and hardworking 同义替换了题干 peaceful and industrious，否定词 no 之后的名词即为答案。因此，本题的答案为 injuries。
23. 题干：他们的生活方式是什么样的。空白处需要填写一个形容词成分。依据顺序原则继续往下读，题干关键词 lifestyle 重现，其前面的形容词即为答案。因此，本题的答案为 strenuous。
24. 题干：通过观察大块的腿部肌肉，可以推断出他们的饮食中含有大量的什么。空白处需要填写一个名词。本题距离上一题较近，通过题干关键词 huge leg muscles 定位到上一题答案出现的句子。显然，ate 替换了题干 diet，much 替换了题干 plenty of。因此，本题的答案为 protein。
25. 题干：Stojanowski 推测 Tenerian 喜欢游牧胜过什么。空白处需要填写一个名词或动名词。通过题干 Stojanowski、Tenerian、herding 可定位到最后 1 段第 1 句，其中 favoured 替换了题干 preferred，herding 重现，rather than 替换了 to。因此，本题的答案为 hunting。
26. 题干：但是只有个别动物的骨头，比如什么动物的骨头被发现了。空白处需要填写一种动物名称。接上一题继续往后读，发现文中提到，尽管出土了许多动物骨头，但没有山羊或绵羊的骨头，只有牛的骨头。因此，本题的答案为 cows。
27. 题干：Sereno 认为 Gobero 的 Tenerian 部落在那时是一个什么样的群体。空白处需要填写一个形容词。通过题干关键词 Tenerian in Gobero 定位至原文最后 1 段最后 1 句，题干中的 group 重现，其前面的形容词即为答案。因此，本题的答案为 transitional。

## 参考译文

### 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

### 撒哈拉先民

2000年10月13日,芝加哥大学教授保罗·塞利诺(Paul Sereno)带领由古生物学家组成的团队爬出三辆破旧的陆虎车,他们装满水壶,穿越棕褐色的沙漠,这片沙漠被称为泰内雷沙漠(Tenere Desert)。泰内雷沙漠是地球上最贫瘠的地区之一,位于撒哈拉的南侧。缠着头巾的图阿雷格(Tuareg)游牧民族已经统治这片荒凉的沙漠上百年的时间了。据他们表示,这片和加利福尼亚州面积相似的沙石之海是“撒哈拉沙漠的腹地”。在泰内雷沙漠里,大沙丘可能延伸一百英里,一眼望不到头。此外,120度的热浪和不可阻挡的风不到一天便几乎可以带走人体的全部水分。

团队中的摄影师迈克·海特维尔(Mike Hettwer)被这些令人惊叹的沙漠景观吸引住了,他走了几个沙丘拍摄这令人惊叹的风景。到达沙丘的第一个斜坡时,他被散落的骨头震惊了。他用数码相机拍下了这些骨头,匆匆忙忙跑回路虎车旁。“我发现了一些骨头,”海特维尔对其他组员说,“实在太令人惊讶了,这不是恐龙的骨头,而是人的骨头。”

2005年春季的一天,保罗·塞利诺(Paul Sereno)教授与埃琳娜·加西亚(Elena Garcea)取得联系,她是意大利卡西诺大学(University of Cassino)著名的考古学家,保罗·塞利诺邀请加西

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

亚教授和他一起回到沙漠。加西亚曾经花了 30 年时间研究苏丹境内的尼罗河和利比亚沙漠中的山脉，她十分熟悉撒哈拉先民的生活。但是她此前并不了解塞利诺，大多数考古学家都不太可能相信他，这种声称自己在泰内雷沙漠发现了大量骨骼的言论十分不可靠。其中一些考古学家认为塞利诺只是名不见经传的古生物学家。然而，加西亚对保罗·塞利诺的观点十分着迷，于是欣然前往。

在接下来三周时间里，塞利诺和加西亚（连同 5 名挖掘者、5 名图阿雷格向导和 5 名尼日尔军队的士兵）大致摸清了目的地的地图，图阿雷格族将这片地区命名为格伯托（Gobero）。古代的克菲安人（Kiffian）和图阿雷格牧民曾经在这片土地上游牧。随后，他们发掘了八座墓葬，为上述两种文明找到了二十件文物。从这些文物中可以看出，克菲安渔民不仅钓到过小鱼，而且钓到了一些体型较大的鱼：其中包括尼罗河鲈鱼的骨骼，这是一种大约 300 磅重的凶猛的鱼，这些鱼骨与鳄鱼骨和河马骨一样，被遗留在沙丘附近。

塞利诺带着一些珍贵的骨骼和文物回去了，并计划着下一次的撒哈拉之行。同时，他小心翼翼从骨骼中拔出牙齿，并把牙齿送到实验室进行放射性碳年代测定。结果表明，尽管这些体积较小的“沉睡”在沙漠中的骨骼可以追溯到 6000 年前（恰好在泰内雷人时期），但这些体积较大的、保存完整的文物大约有 9000 年的历史，恰好处于

the **heyday** of 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 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

克菲安的鼎盛时期。科学家们现在可以将一种文明与另一种文明区分开来。

2006 年秋天, 为了挖掘另外的 80 个墓葬, 这群人又去了格伯托, 与以往不同, 这次探索增加了成员和 6 名不同领域的科学家。在发掘现场, 亚利桑那州立大学 (Arizona State University) 的生物考古学家克里斯·斯塔诺夫斯基 (Chris Stojanowski) 在拼凑骨骼中发现了一些线索。从骨骼中可以判断, 克菲安人可能是一个热爱和平而勤劳的民族。“头部或前臂没有受伤表明他们并没有发生太多战争。”他说道, “他们有强壮的身体。”他指着一条细长的股骨继续说: “从这肌肉附着处, 我们可以推断他腿部肌肉比较发达, 这意味着他过着艰苦的生活, 食物中含有丰富的蛋白质。这两个推论都与以捕鱼为生的人的生活方式相吻合。”为了形成鲜明的对比, 他展示了一个泰内雷男性的股骨, 这块骨头几乎没有骨脊。“这个人的生活方式没那么辛苦, 你可能会想到牧民。”

斯塔诺夫斯基断定泰内雷人是牧民, 这与其他学者对撒哈拉地区 6000 年前生活方式的主流观点一致, 那时干燥的气候有利于放牧而不利于狩猎。但是塞利诺提出了一些令人困惑的观点: 如果泰内雷人是牧民, 那么畜群在哪里? 尽管在格伯托挖出了数千块动物骨头, 但只发现了三具牛骨, 没有发现山羊或绵羊的骨头。“牧民们通常不杀牛, 尤其在墓地里,” 埃琳娜·加西亚说道, “即使是现代的牧民, 比如尼日尔的沃达比人 (Wodaabe), 也不愿

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.'

意在他们的牧群里宰杀动物。”塞利诺说：“也许在格伯托的泰内雷人是一个过渡的群体，他们仍然非常依赖狩猎和捕鱼，而不是完全依赖放牧。”

## 词汇详解

### · 第 1 段 ·

guide /gaɪd/ *v.* 给……导游  
palaeontologist /ˌpælɪən'tɒlədʒɪst/  
ˌpeɪlɪən'tɒlədʒɪst/ *n.* 古生物学者  
toffee /'tɒfi/ *n.* 棕褐色；太妃糖  
barren /'bærən/ *adj.* 贫瘠的  
flank /flæŋk/ *n.* 侧面  
turbaned /'tɜːbənd/ *adj.* 包着头巾的  
nomad /'nəʊmæd/ *n.* 游牧民族  
infertile /ɪn'fɜːtaɪl/ *adj.* 贫瘠的  
domain /də'meɪn; dəʊ'meɪn/ *n.* 领域  
massive /'mæsɪv/ *adj.* 非常大的  
dune /djuːn/ *n.* 沙丘  
stretch /stretʃ/ *v.* 延伸  
inexorable /ɪn'eksərəbl/ *adj.* 不可阻挡的

### · 第 2 段 ·

photographer /fə'tɒɡrəfə(r)/ *n.* 摄影师  
landscape /'lændskeɪp/ *n.* 风景  
slope /sləʊp/ *n.* 斜坡  
scatter /'skætə(r)/ *v.* 散开  
photograph /'fəʊtəɡrɑːf/ *v.* 为……拍照

### · 第 3 段 ·

prestigious /pre'stɪdʒəs/ *adj.* 有声望的  
archaeologist /ˌɑːki'blədʒɪst/ *n.* 考古学家  
get well acquainted with 十分熟悉……

exploration /ˌeksplə'reɪʃn/ *n.* 探究  
unreliable /ˌʌnrɪ'laɪəbl/ *adj.* 不可靠的  
moonlight /'muːnlaɪt/ *v.* 兼职  
obsessive /əb'sesɪv/ *adj.* 着迷的  
perspective /pə'spektɪv/ *n.* 观点  
willingly /'wɪlɪŋli/ *adv.* 欣然地

### · 第 4 段 ·

excavator /'ekskeɪvətə(r)/ *n.* 挖掘者  
sketch /sketʃ/ *v.* 草拟  
destined /'destɪnd/ *adj.* 去往某地的  
dub /dʌb/ *v.* 把……称为  
name /neɪm/ *v.* 给……取名  
roam /rəʊm/ *v.* 漫游，闲逛  
excavate /'ekskeɪvət/ *v.* 挖掘  
tomb /tuːm/ *n.* 坟墓  
artefact /'ɑːtɪfækt/ *n.* 人工制品  
evidently /'evɪdəntli/ *adv.* 显然  
remain /rɪ'meɪn/ *n.* 遗迹  
perch /pɜːtʃ/ *n.* 鲈鱼  
fierce /fɪəs/ *adj.* 凶猛的  
alligator /'ælɪɡeɪtə(r)/ *n.* 鳄鱼  
hippo /'hɪpəʊ/ *n.* 河马  
vicinity /və'sɪnəti/ *n.* 附近

### · 第 5 段 ·

radiocarbon dating 碳同位素年龄测定

indicate /'ɪndɪkeɪt/ *v.* 表明  
 compactly /kəm'pæktli/ *adv.* 紧密地  
 approximately /ə'prɒksɪmətli/ *adv.* 大约  
 heyday /'heɪdeɪ/ *n.* 全盛期  
 distinguish /drɪ'stɪŋɡwɪʃ/ *v.* 区分

### · 第 6 段 ·

exhume /eks'hju:m; ɪg'zju:m/ *v.* 出土  
 crew /kru:/ *n.* 一组工作人员  
 match /mætʃ/ *v.* 使对应  
 forearm /'fɔ:rɑ:m/ *n.* 前臂  
 femur /'fi:mə(r)/ *n.* 股骨  
 strenuous /'strenjuəs/ *adj.* 艰苦的  
 inference /'ɪnfərəns/ *n.* 推论  
 coincide with 符合, 与……一致  
 display /drɪ'spleɪ/ *v.* 展示  
 ridge /rɪdʒ/ *n.* 脊

scarcely /'skeəsli/ *adv.* 几乎不  
 laborious /lə'bɔ:riəs/ *adj.* 艰苦的  
 herder /'hɜ:də(r)/ *n.* 牧人

### · 第 7 段 ·

consistent /kən'sɪstənt/ *adj.* 前后一致的  
 dominant /'dɒmɪnənt/ *adj.* 处于支配地位的  
 favour /'feɪvə(r)/ *v.* 有助于  
 confusing /kən'fju:zɪŋ/ *adj.* 令人困惑的  
 cemetery /'semətri/ *n.* 墓地  
 remark /rɪ'mɑ:k/ *v.* 说, 评论  
 pastoralist /'pɑ:stərəlɪst/ *n.* 放牧人  
 reluctant /rɪ'lʌktənt/ *adj.* 不愿意的  
 slaughter /'slɔ:tə(r)/ *v.* 屠宰  
 transitional /træn'zɪʃənl; træn'sɪʃənl/ *adj.* 过渡的

## Reading Passage 3. Texting the Television

### 文章结构

体裁	说明文
主要内容	本文介绍了短信互动在电视节目中的运用。
结构	<p>A 部分：电视短信现象的出现。</p> <p>B 部分：此现象的原因：真人秀节目。</p> <p>C 部分：此现象的影响：给电信运营商带来收入及争议。</p> <p>D 部分：此现象在商业上成功的原因：简码技术。</p> <p>E 部分：此现象对运营商的影响：采取新策略。</p> <p>F 部分：此现象对电视行业的影响。</p> <p>G 部分：总结评述：可能会出现更多与电视互动的技术或方式。</p>

### 题目详解

#### Questions 28-32

#### 思路

本部分为段落标题配对题，要求将各段落与其对应的标题进行匹配。该题型主要考查段落大意与选项信息的匹配。

题干给出了 A 和 F 两部分的答案选项，所以可以勾掉这两道题的答案选项 ii 和 ix。做题时，首先分析选项并画出关键信息。然后，依照原文顺序扫读文章各段，找出核心句或词，如果没有明显的核心句或词，则需要自己根据上下文概括一下核心大意。最后，对比选项关键信息，选出一个最为恰当的标题。

#### 解答

- i 简码在电视荧屏中的应用
- ii 一项快速发展的行业的概述
- iii 为什么越来越多的人开始关注赚钱的游戏
- iv 荷兰如何发挥主导作用
- v 关于分享商业机会的一种新观点
- vi 与互动电视的快速增长相关的因素
- vii 收益和红利份额
- viii 复杂技术被简单技术所取代的可能性
- ix 机顶盒提供者的思维变化

28. B 部分的第 1 句为核心主旨句，上一段介绍了短信参与电视互动的快速发展，这一段开头就介绍了之所以发展这么快的原因：This phenomenon can be largely attributed to the rapid growth of reality TV shows... 即这种现象的存在主要归因于真人秀节目的迅猛增长。其中 can be largely attributed to（大部分归因于）体现了 vi 选项中的 factors, the rapid growth of reality TV shows 体现了 the rapid increase in interactive TV。因此，本题的答案为 vi。
29. C 部分第 1 段和第 2 段的第 1 句为核心主旨句，都是在介绍与电视相关的短信业务给供应商和电视台都带来了许多收益，其中 TV-texting can bring in a lot of cash 和 TV-related text messaging takes up a considerable proportion of mobile service providers' data revenues 都体现了 revenue gains。第 2 段的倒数 2—3 句提到了电视节目制作组对供应商占短信收入比重太多而不满，体现出了 bonus share。因此，本题的答案为 vii。
30. D 部分的开头提出了一个设问：为什么电视和短信的结合能如何成功呢？接下来的内容给出了答案，即简码的出现，方便观众记忆。这一部分都在讲 i 选项的关键词 short codes。因此，本题的答案为 i。
31. E 部分的第 1 句为核心主旨句：运营商在扩大市场合作上呈现出一种更广泛的趋势。先前服务供应商都会维护自己的利润，不愿与其他媒介分享收益。但 WAP 的失败使服务供应商得到了教训，必须改变经营模式，即与其他媒介合作、分享可观的收益。因此，本题的答案为 v。
32. G 部分的第 1 句为核心主旨句：与电视相关的短信技术的胜利提醒了这个行业的每一个人：一项高明的技术突然之间就能被一种不那么复杂、不那么高级的方法所取代。其中 how easily a fancy technology can...be replaced by a less complicated, lower-tech method 对应选项 viii, a fancy technology 对应 the complex technology, a less complicated, lower-tech method 对应 the simpler ones。因此，本题的答案为 viii。

### Questions 33-35

#### 思路

本部分为单项选择题，是雅思阅读中难度较高的题型之一。该题难点在于部分题目需要对细节进行理解和分析，同时选项可能会出现干扰。题目遵循顺序原则，也就是说题目顺序与题目答案在原文出现的顺序一致。

#### 解答

33. 题干：在欧洲，一个调查显示年轻观众会花更多的钱在什么上。题干的关键词为 in Europe、young audiences，据此定位到 A 部分前两句。这一段都在说短信在电视节目互动方面的发展，尤其本部分最后 1 句提到，20% 的法国青少年、11% 的英国青少年和 9% 的德国青少年都在通过发短信来参与电视节目。其中 teenagers 替换了 young

audiences, sending a text message 即 A 选项的 thumbing text messages。因此, 本题的答案为 A。

34. 题干: 真人秀节目邀请观众投票, 会发生什么。题干的关键词为 reality TV shows、vote, 据此定位到 B 部分第 1 句, 该句后半句即说明了结果, 观众参与投票可以决定结果。B 选项和 C 选项该部分也有提到, 但并不是真人秀节目, 也不是投票的结果。A 选项在 C 部分第 1 段的最后有所提及, 但也不是必然结果。因此, 本题的答案为 D。
35. 题干: 互动电视不再关注机顶盒装置, 而是关注什么。题干的关键词为 set-top、interactive TV, 文中原词重现, 定位于 F 部分第 2 段第 1 句。这一段一直在说之前机顶盒装置直接接入电视的弊端, 目的是为了引出最后 1 句 “Providers of set-top box technology are now adding texting function to the design of their products”, 说明目前考虑在机顶盒的设计中增添发短信功能。因此, 本题的答案为 C。

### Questions 36-40

#### 思路

本部分为机构名称与观点或事迹配对题, 属于人名与观点或事迹配对题中的一种。该题型通常会出现两类范畴: 题干为观点或事迹, 选项为机构名称。通常不以文章顺序出现。做题时, 首先画出题干中的关键信息 (浓缩题干大意的名词、动词、形容词或容易定位的词汇), 然后在文中找出各个选项的大写机构名称, 随后标记每个机构名出现附近的所有观点或行为, 最后将这些观点或行为与题干的关键信息比对, 意思相同的或关键词对应上的即为答案。

#### 解答

36. 题干: 提供手机信息技术。关键词 offer message technology。
37. 题干: 通过一个有名的节目赚了一大笔钱。关键词 a famous programme、earn money。
38. 题干: 表达了简码出现时便于记忆的观点。关键词 short codes、are convenient to remember。
39. 题干: 创建自己的手机操作应用程序。关键词 built own operating applications。
40. 题干: 表明人们在互动电视中很容易发送信息。关键词 interactive TV、easy to send message。

在画完题干的键信息之后, 我们以大写机构名称为定位词, 分别去寻找它们出现在文中的位置, 并画出附近的关键性观点和事迹。具体如下:

**A Flytxt:** 出现于 D 部分最后 1 句。该公司的 Lars Becker 认为 The emergence of this universal short codes was a game-changer, because short codes are much easier to remember on the screen。其中 short codes are much easier to remember 对应 38 题关键词。因此, 38 题的答

案为 A。

**B Analysys:** 出现于 E 部分第 1 句。该公司的 Katrina Bond 认为运营商在扩大市场方面的合作趋势逐渐加强。在该部分的最后提到, 运营商已意识到过去运营模式的弊端, 开始与其他媒介分享收益。对照各选项关键词, 发现没有对应信息, 所以排除 B 选项。

**C Endemol:** 出现于 C 部分第 2 段倒数第 2 句。该公司负责许多真人秀节目, 包括“老大哥”, 正开始创建属于自己的移动用户的数据库, 并建立一个直接的投票系统, 避开服务运营商。其中 constructing its own database for mobile-phone users 对应 39 题关键词。因此, 39 题的答案为 C。

**D CMG:** 出现于 F 部分第 1 句。该公司提供短信发送基础设施, 认为电视行业正在发生根本性的变化, 从单向交流转为观众参与电视互动。其中 a company that offers the television market text-message infrastructure 对应 36 题关键词。因此, 36 题的答案为 D。

**E MmO2:** 出现于 C 部分第 2 段第 2 句。该公司是一家英国运营商, 公布了一个出人意料的满意结果, 那就是得益于“老大哥”这个节目, 创造了一大笔收入。其中“Big Brother”“an expectedly satisfactory result”对应 37 题关键词。因此, 37 题的答案为 E。

**F Gartner:** 现在只剩下 40 题没有答案了, 在 A—E 都已排除的情况下, F 自然成为 40 题的答案。为了验证是否正确, 我们还是找出 Gartner 在文中出现的位置。这个名称在文中多次出现, 比如 A 部分、B 部分最后、F 部分第 2 段。依次扫读, 发现该公司先是列举了短信在互动电视上的发展, 然后提出了原因, 并列举了短信不仅用于投票, 还用于其他互动方式的例子。A 部分“one of the fastest-growing uses is to interact with television”和 B 部分“it’s a supernatural way to interact”都体现出了 easy 这个含义。因此, 40 题的答案为 F。

## 参考译文

### Texting the Television

### 短信参与电视节目

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

以前, 任何一个想要吸引青少年观众的电视节目都要有自己的邮箱地址。但是在欧洲, 电视节目逐渐将邮箱地址换成了电话号码, 这样观众就可以通过发送短信参与互动。因此, 高德纳公司 (Gartner) 的调查结果也就不足为奇了。调查显示, 最近在欧洲, 短信的使用已超过了网络。此外, 在

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

短信的诸多用途中, 发展最快的一个用途就是参与电视互动。据高德纳的调查数据显示, 法国有 20% 的青少年通过短信参与电视节目, 英国的这一数据是 11%, 德国是 9%。

这一现象的产生很大程度上归因于真人秀的迅速发展, 例如在“老大哥”(Big Brother) 中, 观众可以通过(发送短信)投票决定结果。现在大多数真人秀都开通了短信投票功能。例如在挪威最新的一集“老大哥”中, 短信投票就占据了大多数。但是短信不仅仅可以参与节目投票, 比如新闻节目会鼓励观众通过短信发表评论; 游戏节目会让观众通过短信参与比赛; 音乐节目可以通过发短信进行点播; 广播节目也开设了电视聊天室。观众们往往通过手机舒服地坐在沙发上便可进行互动。高德纳的亚当·多姆(Adam Daum)称“这是一种特别随心所欲的互动方式”。

移动服务提供商会对一定数量的短信收取可观的费用, 所以电视短信也能赚取一大笔钱。例如, 英国最新的一集“老大哥”收到了约 540 万条短信投票, 产生了 135 万英镑(210 万美元)的利润。根据阿姆斯特丹一家咨询公司的报道, 德国 MTV 音乐台的“Videoclash”鼓励观众对视频进行二选一的投票, 每小时会产生 4 万条短信, 每条花费 0.3 欧元(0.29 美元)。

(\$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, MmO2 (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?

比利时智力竞赛节目“以一敌百”有8轮短信投票的比赛,它一个月就拥有了11万参与者,而每人每题需要花费0.5欧元。西班牙同样也有一个纵横字谜的节目,观众可以通过短信发送答案,每条1欧元,赢家可以获得价值300欧元的大奖,这个节目一般每天有6000人参与。

目前,与电视相关的短信业务占了移动服务供应商数据收入的很大一部分。在7月份,英国移动运营商MmO2公布了一个让人出乎意外的满意结果,这就归功于“老大哥”产生的大量短信。供应商可以从每条短信中获取40%至50%的利润,其余则分给广播公司、节目制作人以及提供短信处理技术的公司。就当下来说,短信收入对于许多节目已成为一种不可分割的商业模式。但对于供应商占据了大部分收益这一点明显仍存在争议。荷兰电视制作商恩德莫(Endemol)负责许多电视节目,包括“老大哥”,它现在正在建立自己的手机用户数据库,以越过供应商建立一个直接的投票系统。

那么电视节目和短信的结合是怎样取得巨大成功的呢?其中一个很重要的

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

原因就在于“简码”的出现，它是一种四位、五位或六位的数字编码。每个供应商管理自己的简码。但直到现在他们才意识到，其实应该设计一个统一的、符合所有网络的简码。飞文（Flytxt）移动营销公司的拉尔斯·贝克尔（Lars Becker）指出，这种通用简码的出现造成了巨大改变，因为人们更容易记住电视上短短的代码。

易观国际咨询公司（Analysys）的卡特里娜·邦德（Katrina Bond）表示运营商在扩大市场合作上呈现出一种更广泛的趋势。在坚决维护自己的利益和允许新媒体产生这两者之间，没有运营商会选择后者。无限应用协议（WAP）是一种帮助用户在手机屏幕上阅读网页的技术，但是它并没有取得成功，因为服务供应商不愿意和内容提供商分享利润。现在，它们已经意识到这种做法并不正确，并开始反思自己的运营模式。法国电信运营商奥朗热（Orange）经过漫长的发展建立了价目表，以划分短信的收益，这种透明度是之前无法想象的。

来自康联（CMG，一家提供短信发送基础设施的公司）的韩维金（Han Weegink）在最近的一个会议上指出，电视行业正在经历细微但重要的变化。传统的单向呈现已逐渐被和观众互动的双向方式所取代。

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.

当然, 注重观众参与对交互电视无疑是十分重要的。交互电视最初和机顶盒搭配使用, 它可以直接接入电视。但是, 多姆先生指出, 这个方法有许多不足。对不同的机顶盒进行开发和测试的软件可能会花费高额成本, 更不用说它 40% (或更低) 的市场渗透低于手机 (85% 左右)。而且在手机上下载应用软件也更为容易。多姆说: “你可以更快地进入市场, 而且可以省去中间商的麻烦”。机顶盒技术的提供商现在也在设计中加入了短信功能。

与电视相关的短信技术的胜利提醒了这个行业的每一个人: 一项高明的技术突然之间就能被一种不那么复杂、不那么高级的方法所取代。话虽如此, 老式的互动电视模式并不一定会结束; 至少它证明了对交互服务的强烈需求仍然存在。看来观众们除了单纯地盯着电视屏幕外, 还愿意做更多的事情。毕竟, 电视迷们还是喜欢在看电视之余多活动活动手指。

## 词汇详解

### ·A 部分·

target /'tɑ:ɡɪt/ *v.* 面向, 对准 (某群体)

substitute /'sʌbstɪtju:t/ *v.* 代替

surpass /sə'pɑ:s/ *v.* 超越

display /dɪ'spleɪ/ *v.* 显示

### ·B 部分·

be attributed to 归因于

broadcaster /'brɔ:dkɑ:stə(r)/ *n.* 广播公司; 广播员

on-screen /,ɒn 'skri:n/ *adj.* 屏幕上的, 荧幕上的

supernatural /,su:pə'nætʃrəl/ *adj.* 超自然的; 神奇的, 不可思议的

### ·C 部分·

appreciable /ə'pri:ʃəbl/ *adj.* 相当可观的

induce /ɪn'dju:s/ *v.* 引起

consultancy /kən'sʌltənsi/ *n.* 咨询公司

cryptic /'kriptɪk/ *adj.* 神秘的

crossword /'krɒswɜ:d/ *n.* 纵横字谜

enrol /ɪn'rəʊl/ *v.* 参与

poll /pəʊl/ *n.* 投票

unexpectedly /,ʌnɪk'spektɪdli/ *adv.* 出乎意料地

satisfactory /,sætɪs'fæktəri/ *adj.* 满意的

massive /'mæsɪv/ *adj.* 大量的

revenue /'revənju:/ *n.* 收入

generate /'dʒenəreɪt/ *v.* 产生

indispensable /,ɪndɪ'spensəbl/ *adj.* 不可分割

的, 不可缺少的

grumble /'ɡrʌmbl/ *v.* 抱怨地表示

construct /kən'strʌkt/ *v.* 建立

database /'deɪtəbeɪs/ *n.* 数据库

bypass /'baɪpɑ:s/ *v.* 绕开

### ·D 部分·

joining forces 协力

compatible /kəm'pætəbl/ *adj.* 兼容的

### ·E 部分·

enlarge /ɪn'lɑ:dʒ/ *v.* 扩大

dilemma /dɪ'lemə/ *n.* 困境

margin /'mɑ:dʒɪn/ *n.* 利润

medium /'mi:diəm/ *n.* 媒介

reluctance /rɪ'lʌktəns/ *n.* 不情愿

transparency /træns'pærənsi/ *n.* 透明

unimaginable /,ʌnɪ'mædʒɪnəbl/ *adj.* 不可思议的

### ·F 部分·

subtle /'sʌtl/ *adj.* 微妙的

fundamental /,fʌndə'mentl/ *adj.* 根本的

engage /ɪn'geɪdʒ/ *v.* 使参加

exquisite /ɪk'skwɪzɪt; 'ekskwɪzɪt/ *adj.* 精致的

plug /plʌɡ/ *v.* 插入

incompatible /,ɪnkəm'pætəbl/ *adj.* 不相容的

costly /'kɒstli/ *adj.* 昂贵的

penetration /,penə'treɪʃn/ *n.* 渗透

approach /ə'prəʊtʃ/ *v.* 接近

greedy /'ɡri:di/ *adj.* 贪婪的

middleman /'mɪdlmæn/ *n.* 中间商

• G 部分 •

fancy /'fænsi/ *adj.* 昂贵的

all of a sudden 突然

low-tech /,ləʊ 'tek/ *adj.* 技术含量低的

old-fashioned /,əʊld 'fæʃnd/ *adj.* 老式的

thumb /θʌm/ *n.* 拇指



## 附录1

## Answer Keys

### Test 1

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

#### Reading Passage 1

- 1 False
- 2 False
- 3 True
- 4 Not Given
- 5 False
- 6 Not Given
- 7 True
- 8 history of childhood
- 9 miniature adults
- 10 industrialisation/industrialization
- 11 the Factory Act
- 12 play and education
- 13 (a) classroom

#### Reading Passage 2

- 14 Not Given
- 15 True
- 16 True
- 17 True
- 18 False
- 19 Not Given
- 20 clues
- 21 relationship

- 22 message
- 23 reschedule
- 24 voicemail
- 25 cellphone
- 26 meeting

#### Reading Passage 3

- 27 v
- 28 ii
- 29 vi
- 30 iii
- 31 vii
- 32 iv
- 33 viii
- 34 thunderstorms
- 35 Condensation
- 36 heat
- 37 eye
- 38 land
- 39 B
- 40 C

#### If you score...

0-12	13-26	27-40
you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

## Test 2

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1

- 1 C
- 2 D
- 3 C
- 4 A
- 5 E
- 6 (a) clerk
- 7 front lobby
- 8 gallery
- 9 stockroom
- 10 customers
- 11 C
- 12 B
- 13 C

### Reading Passage 2

- 14 H
- 15 J
- 16 I
- 17 K
- 18 G
- 19 Not Given
- 20 True
- 21 True

- 22 False
- 23 False
- 24 in the 1960s
- 25 Tanzania
- 26 close observation
- 27 cultural origin

### Reading Passage 3

- 28 B
- 29 A
- 30 C
- 31 D
- 32 B
- 33 liquid
- 34 Disneyland
- 35 rigorous experimentation
- 36 grammar school
- 37&38&39 IN EITHER ORDER
- B
- D
- E
- 40 C

### If you score...

0-12	13-26	27-40
you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

## Test 3

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1

- 1 E
- 2 A
- 3 E
- 4 G
- 5 B
- 6 True
- 7 False
- 8 Not Given
- 9 local time
- 10 2.8 seconds
- 11 lubrication
- 12 (a/the) sextant
- 13 angles
- 14 marine chronometer

### Reading Passage 2

- 15 ix
- 16 iv
- 17 iii
- 18 v
- 19 i
- 20 vi

- 21 ii
- 22 hot season/dry season
- 23 four months
- 24 water resources
- 25 body weight
- 26 dehydration
- 27 growth

### Reading Passage 3

- 28 F
- 29 C
- 30 G
- 31 B
- 32 F
- 33 E
- 34 False
- 35 Not Given
- 36 False
- 37 True
- 38 C
- 39 A
- 40 D

### If you score...

0-12	13-26	27-40
you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

## Test 4

*Each question correctly answered scores 1 mark. CORRECT SPELLING IS NEEDED IN ALL ANSWERS.*

### Reading Passage 1

- 1 iii
- 2 v
- 3 i
- 4 vi
- 5 A
- 6 B
- 7 B
- 8 C
- 9 C
- 10 A
- 11 B
- 12 A
- 13 D

### Reading Passage 2

- 14 B
- 15 G
- 16 A
- 17 H
- 18 D
- 19 C
- 20 C
- 21 True

- 22 False
- 23 False
- 24 True
- 25 Not Given
- 26 False

### Reading Passage 3

- 27 severe weather conditions
- 28 aesthetic and practical
- 29 (treasurable) souvenir
- 30 E
- 31 F
- 32 B
- 33 D
- 34 H
- 35 C
- 36 (a/tiny) fuel tank
- 37 openings
- 38 handle
- 39 propane and butane
- 40 double flame

### If you score...

0-12	13-26	27-40
you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

## Test 5

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1

- 1 A
- 2 E
- 3 G
- 4 C
- 5 ancient Rome
- 6 Persia
- 7 Mallorca
- 8 Japan
- 9 Australia
- 10 Bahrain
- 11 True
- 12 Not Given
- 13 True

### Reading Passage 2

- 14 D
- 15 A
- 16 B
- 17 F
- 18 C
- 19 E
- 20 petrol-fueled internal combustion

- 21 identity and status
- 22 15 minutes
- 23 the 1973 oil crisis
- 24 (a) gas-guzzler
- 25 fuel power
- 26 toxic gas
- 27 B

### Reading Passage 3

- 28 hammer
- 29 body
- 30 pad(s)
- 31 sinus cavities
- 32 trunks and feet
- 33 infrasonic/low
- 34 ecology
- 35 seismic signals
- 36 auditory communication
- 37 mate
- 38 ground
- 39 A
- 40 C

### If you score...

0-12	13-26	27-40
you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.

## Test 6

Each question correctly answered scores 1 mark. **CORRECT SPELLING IS NEEDED IN ALL ANSWERS.**

### Reading Passage 1

- 1 D
- 2 B
- 3 F
- 4 C
- 5 A
- 6 E
- 7 D
- 8 G
- 9 F
- 10 C
- 11 B
- 12 D
- 13 E
- 14 A

### Reading Passage 2

- 15 Not Given
- 16 False
- 17 True
- 18 False
- 19 a detailed map
- 20 the teeth/teeth of skeletons

- 21 9000 years old
- 22 injuries
- 23 strenuous
- 24 protein
- 25 hunting
- 26 cows
- 27 transitional

### Reading Passage 3

- 28 vi
- 29 vii
- 30 i
- 31 v
- 32 viii
- 33 A
- 34 D
- 35 C
- 36 D
- 37 E
- 38 A
- 39 C
- 40 F

### If you score...

0-12	13-26	27-40
you are highly unlikely to get an acceptable score under examination conditions and we recommend that you spend a lot of time improving your English before you take IELTS.	you may get an acceptable score under examination conditions but we recommend that you think about having more practice or lessons before you take IELTS.	you are likely to get an acceptable score under examination conditions but remember that different institutions will find different scores acceptable.



## 附录2

## 本书所收集文章及对应考试日期一览

### Test 1

The Concept of Childhood in Western Countries	2017年2月25日
Bestcom—Considerate Computing	2017年1月14日
Can Hurricanes be Moderated or Diverted?	2017年3月18日

### Test 2

The Innovation of Grocery Stores	2017年2月11日	2016年4月2日
The Study of Chimpanzee Culture	2017年1月7日	2016年8月20日
Quantitative Research in Education	2017年2月16日	

### Test 3

Timekeeper: Invention of Marine Chronometer	2017年11月25日	2016年7月30日
The Evolutionary Mystery: Crocodile Survives	2016年5月28日	
Company Innovation	2018年4月21日	

### Test 4

Education Philosophy	2017年1月14日
How Deserts are Formed	2017年11月25日
The Olympic Torch	2017年1月21日

### Test 5

The Pearl	2017年7月15日	
The History of Automobile	2018年11月10日	2016年8月13日
Elephant Communication	2018年10月13日	2016年11月19日

### Test 6

History of Refrigeration	2017年9月30日	2016年4月16日
Ancient People in Sahara	2017年11月4日	
Texting the Television	2017年12月2日	