

# **INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM**

## **READING**

### **UNIT 1 填空题专项训练**

## PASSAGE 1

**Alfred Nobel***The man behind the Nobel Prize*

（注：节选自原文第 3~4 段）

P3: In order to widen Alfred's horizons his father sent him abroad for further training in chemical engineering. During a two year period Alfred Nobel visited Sweden, Germany, France and the United States. In Paris, the city he came to like best, he worked in the private laboratory of Professor T. J. Pelouze, a famous chemist. There he met the young Italian chemist Ascanio Sobrero who, three years earlier, had invented nitroglycerine, a highly explosive liquid. But it was considered too dangerous to be of any practical use. Although its explosive power greatly exceeded that of gunpowder, the liquid would explode in a very unpredictable manner if subjected to heat and pressure. Alfred Nobel became very interested in nitroglycerine and how it could be put to practical use in construction work. He also realized that the safety problems had to be solved and a method had to be developed for the controlled detonation of nitroglycerine.

P4: After his return to Sweden in 1863, Alfred Nobel concentrated on developing nitroglycerine as an explosive. Several explosions, including one (1864) in which his brother Emil and several other persons were killed, convinced the authorities that nitroglycerine production was exceedingly dangerous. They forbade further experimentation with nitroglycerine within the Stockholm city limits and Alfred Nobel had to move his experimentation to a barge anchored on Lake Mälaren. Alfred was not discouraged and in 1864 he was able to start mass production of nitroglycerine. To make the handling of nitroglycerine safer Alfred Nobel experimented with different additives. He soon found that mixing nitroglycerine with kieselguhr would turn the liquid into a paste which could be shaped into rods of a size and form suitable for insertion into drilling holes. In 1867 he patented this material under the name of dynamite. To be able to detonate the dynamite rods he also invented a detonator (blasting cap) which could be ignited by lighting a fuse. These inventions were made at the same time as the pneumatic drill came into general use. Together these inventions drastically reduced the cost of blasting rock, drilling tunnels, building canals and many other forms of construction work.

**Questions 7 - 13**

Complete the notes below using **NO MORE THAN TWO WORDS** from the passage.

**Education:**

Having accumulated a great fortune in his business, Nobel's father determined to give his son the best education and sent him abroad to be trained in **7** \_\_\_\_\_. During Nobel's study in Paris, he worked in a private laboratory, where he came in contact with a young engineer **8** \_\_\_\_\_ and his invention nitroglycerine, a more powerful explosive than **9** \_\_\_\_\_.

**Benefits in construction works:**

Nobel became really interested in this new explosive and experimented on it. But nitroglycerine was too dangerous and was banned for experiments within the city of **10** \_\_\_\_\_. So Nobel had to move his experiments to a lake. To make nitro-glycerine easily usable, Nobel invented dynamite along with **11** \_\_\_\_\_ capwhile in the meantime **12** \_\_\_\_\_ became popular, all of which dramatically lowered the **13** \_\_\_\_\_ of construction works.

## PASSAGE 2

## THE LOST CITY

(注：节选自原文 C/D/F 段)

*Thanks to modern remote-sensing techniques, a ruined city in Turkey is slowly revealing itself as one of the greatest and most mysterious cities of the ancient world. Sally Palmer uncovers more.*

**C** In 1993, Dr Summers hired a special hand-held balloon with a remote-controlled camera attached. He walked over the entire site holding the balloon and taking photos. Then one afternoon, he rented a hot-air balloon and floated over the site, taking yet more pictures. By the end of the 1994 season, Dr Summers and his team had a jigsaw of aerial photographs of the whole site. The next stage was to use remote sensing, which would let them work out what lay below the intriguing outlines and ruined walls. "Archaeology is a discipline that lends itself very well to remote sensing because it revolves around space," says Scott Branting, an associated director of the project. He started working with Dr Summers in 1995.

**D** The project used two main remote-sensing techniques. The first is magnetometry, which works on the principle that magnetic fields at the surface of the Earth are influenced by what is buried beneath. It measures localised variations in the direction and intensity of this magnetic field. "The Earth's magnetic field can vary from place to place, depending on what happened there in the past," says Branting. "If something containing iron oxide was heavily burnt, by natural or human actions, the iron particles in it can be permanently reoriented, like a compass needle, to align with the Earth's magnetic field present at that point in time and space." The magnetometer detects differences in the orientations and intensities of these iron particles from the present-day magnetic field and uses them to produce an image of what lies below ground.

**F** The other main sub-surface mapping technique, which is still being used at the site, is resistivity. This technique measures the way electrical pulses are conducted through sub-surface soil. It's done by shooting pulses into the ground through a thin metal probe. Different materials have different electrical conductivity. For example, stone and mudbrick are poor conductors, but looser, damp soil conducts very well. By walking around the site and taking about four readings per metre, it is possible to get a detailed idea of what is where beneath the surface. The teams then build up pictures of walls, hearths and other remains. "It helps a

lot if it has rained, because the electrical pulse can get through more easily,” says Branting. “Then if something is more resistant, it really shows up.” This is one of the reasons that the project has a spring season, when most of the resistivity work is done. Unfortunately, testing resistivity is a lot slower than magnetometry. “If we did resistivity over the whole site it would take about 100 years,” says Branting. Consequently, the team is concentrating on areas where they want to clarify pictures from the magnetometry.

### Questions 18 - 25

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

#### Exploring the ancient city of Pteria

Archaeologists began working ten years ago. They started by taking photographs of the site from the ground and then from a distance in a **18** \_\_\_\_\_. They focused on what lay below the surface using a magnetometer, which identifies variations in the magnetic field. These variations occur when the **19** \_\_\_\_\_ in buried structures have changed direction as a result of great heat. They line up with the surrounding magnetic field just as a **20** \_\_\_\_\_ would do.

The other remote-sensing technique employed was resistivity. This uses a **21** \_\_\_\_\_ to fire electrical pulses into the earth. The principle is that building materials like **22** \_\_\_\_\_ and stone do not conduct electricity well, while **23** \_\_\_\_\_ does this much more effectively. This technique is mainly employed during the **24** \_\_\_\_\_, when conditions are more favourable. Resistivity is mainly being used to **25** \_\_\_\_\_ some images generated by the magnetometer.

## PASSAGE 3

**Assessing the Risk**

(注：节选自原文 8~10 段)

*How do we judge whether it is right to go ahead with a new technology? Apply the precautionary principle properly and you won't go far wrong, says Colin Tudge.*

**Section 2**

Another issue is at stake here. Statistics are not the only concept people use when weighing up risk. Human beings, subtle and evolved creatures that we are, do not survive to threescore years and ten simply by thinking like pocket calculators. A crucial issue is consumer's choice. In deciding whether to pursue the development of a new technology, the consumer's right to choose should be considered alongside considerations of risk and benefit. Clearly, skiing is more dangerous than genetically modified tomatoes. But people who ski choose to do so; they do not have skiing thrust upon them by portentous experts of the kind who now feel they have the right to reconstruct our crops. Even with skiing, there is the matter of cost effectiveness to consider: skiing, I am told, is exhilarating. Where is the exhilaration in GM soya?

Indeed, in contrast to all the other items on Spiked's list, GM crops stand out as an example of a technology whose benefits are far from clear. Some of the risks can at least be defined. But in the present economic climate, the benefits that might accrue from them seem dubious. Promoters of GM crops believe that the future population of the world cannot be fed without them. That is untrue. The crops that really matter are wheat and rice, and there is no GM research in the pipeline that will seriously affect the yield of either. GM is used to make production cheaper and hence more profitable, which is an extremely questionable ambition.

The precautionary principle provides the world with a very important safeguard. If it had been in place in the past, it might, for example, have prevented insouciant miners from polluting major rivers with mercury. We have come to a sorry pass when scientists, who should above all be dispassionate scholars, feel they should misrepresent such a principle for the purposes of commercial and political propaganda. People at large continue to mistrust science and the high technologies it produces, partly because they doubt the wisdom of scientists. On such evidence as this, these doubts are fully justified.

## Questions 33 - 39

Complete the summary below using **NO MORE THAN THREE WORDS** from the passage.

When applying precautionary principle to decide whether to invent a new technology, people should also take into consideration of the **33**\_\_\_\_\_, along with the usual consideration of **34** \_\_\_\_\_. For example, though risky and dangerous enough, people still enjoy **35**\_\_\_\_\_ for the excitement it provides. On the other hand, experts believe the future population desperately needs **36**\_\_\_\_\_ in spite of their undefined risks. However, the researches conducted so far have not been directed towards increasing the yield of **37**\_\_\_\_\_, but to reduce the cost of **38**\_\_\_\_\_ and to bring more profit out of it. In the end, such selfish use of precautionary principle for business and political gain has often led people to **39**\_\_\_\_\_ science for they believe scientists are not to be trusted.

## PASSAGE 4

## Health in the Wild

(注：节选自原文 1~8 段)

*Many animals seem able to treat their illnesses themselves. Humans may have a thing or two to learn from them.*

For the past decade Dr Engel, a lecturer in environmental sciences at Britain's Open University, has been collating examples of self-medicating behaviour in wild animals. She recently published a book on the subject. In a talk at the Edinburgh Science Festival earlier this month, she explained that the idea that animals can treat themselves has been regarded with some scepticism by her colleagues in the past. But a growing number of animal behaviourists now think that wild animals can and do deal with their own medical needs.

One example of self-medication was discovered in 1987. Michael Huffman and Moham-ed Seifu, working in the Mahale Mountains National Park in Tanzania, noticed that local chimpanzees suffering from intestinal worms would dose themselves with the pith of a plant called Veronia. This plant produces poisonous chemicals called terpenes. Its pith contains a strong enough concentration to kill gut parasites, but not so strong as to kill chimps (nor people, for that matter; locals use the pith for the same purpose). Given that the plant is known locally as "goat-killer", however, it seems that not all animals are as smart as chimps and humans. Some consume it indiscriminately, and succumb.

Since the Veronia-eating chimps were discovered, more evidence has emerged suggesting that animals often eat things for medical rather than nutritional reasons. Many species, for example, consume dirt—a behaviour known as geophagy. Historically, the preferred explanation was that soil supplies minerals such as salt. But geophagy occurs in areas where the earth is not a useful source of minerals, and also in places where minerals can be more easily obtained from certain plants that are known to be rich in them. Clearly, the animals must be getting something else out of eating earth.

The current belief is that soil—and particularly the clay in it—helps to detoxify the defensive poisons that some plants produce in an attempt to prevent themselves from being eaten. Evidence for the detoxifying nature of clay came in 1999, from an experiment carried out on macaws by James Gilardi and his colleagues at the University of California, Davis. Macaws



eat seeds containing alkaloids, a group of chemicals that has some notoriously toxic members, such as strychnine. In the wild, the birds are frequently seen perched on eroding riverbanks eating clay. Dr Gilardi fed one group of macaws a mixture of a harmless alkaloid and clay, and a second group just the alkaloid. Several hours later, the macaws that had eaten the clay had 60% less alkaloid in their bloodstreams than those that had not, suggesting that the hypothesis is correct.

Other observations also support the idea that clay is detoxifying. Towards the tropics the amount of toxic compounds in plants increases—and so does the amount of earth eaten by herbivores. Elephants lick clay from mud holes all year round, except in September when they are bingeing on fruit which, because it has evolved to be eaten, is not toxic. And the addition of clay to the diets of domestic cattle increases the amount of nutrients that they can absorb from their food by 10%—20%.

A third instance of animal self-medication is the use of mechanical scours to get rid of gut parasites. In 1972 Richard Wrangham, a researcher at the Gombe Stream Reserve in Tanzania, noticed that chimpanzees were eating the leaves of a tree called *Aspilia*. The chimps chose the leaves carefully by testing them in their mouths. Having chosen a leaf, a chimp would fold it into a fan and swallow it. Some of the chimps were noticed wrinkling their noses as they swallowed these leaves, suggesting the experience was unpleasant. Later, undigested leaves were found on the forest floor.

Dr Wrangham rightly guessed that the leaves had a medicinal purpose—this was, indeed, one of the earliest interpretations of a behaviour pattern as self-medication. However, he guessed wrong about what the mechanism was. His (and everybody else's) assumption was that *Aspilia* contained a drug, and this sparked more than two decades of phytochemical research to try to find out what chemical the chimps were after. But by the 1990s, chimps across Africa had been seen swallowing the leaves of 19 different species that seemed to have few suitable chemicals in common. The drug hypothesis was looking more and more dubious.

It was Dr Huffman who got to the bottom of the problem. He did so by watching what came out of the chimps, rather than concentrating on what went in. He found that the egested leaves were full of intestinal worms. The factor common to all 19 species of leaves swallowed by the chimps was that they were covered with microscopic hooks. These caught the worms and dragged them from their lodgings.

### Questions 5 - 9

Complete the table below using **ONE WORD ONLY** from the passage.

Date	Name	Animal	Food	Mechanism
1987	Michael Huffman and Mohamedi Seifu	Chimpanzee	5 _____ of <i>Veronia</i>	Contained chemicals, 6 _____, that can kill parasites
1999	James Gilardi and his colleagues	Macaw	Seeds (contain 7 _____) and clay	Clay can 8 _____ the poisonous contents in food
1972	Richard Wrangham	Chimpanzee	Leaves with tiny 9 _____ on surface	Such leaves can catch and expel worms from intestines

### Questions 10 - 13

Though often doubted, the self-medicating behaviour of animals has been supported by an increasing amount of evidence. One piece of evidence particularly deals with 10 \_\_\_\_\_, a soil-consuming behaviour commonly found across animals species, because earth, often clay, can neutralize the 11 \_\_\_\_\_ content of their diet. Such behaviour can also be found among humans in Africa, where people purchase 12 \_\_\_\_\_ at market stalls as a kind of medication to their illnesses. Another example of this is found in chimps eating leaves of often 13 \_\_\_\_\_ taste but with no apparent medicinal value until its unique structure came into light.

A mineral	B plants	C unpleasant	D toxic
E clay tablets	F nutritional	G geophagy	H harmless

## PASSAGE 5

**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.'

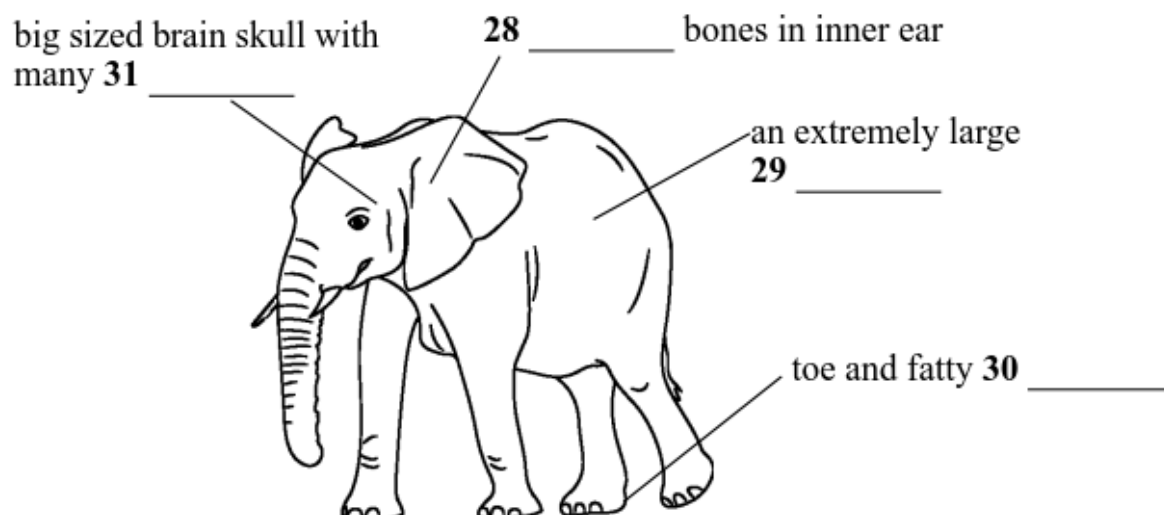
Scientists have confirmed that an elephant's capacity to communicate over long distance is essential for survival, especially in places like Etosha, where more than 2,400 savanna elephants range over a land bigger than New Jersey. It is already difficult for an elephant to find a mate in such a vast 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**

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



**Questions 32 - 38**

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

How the elephants sense these sound vibrations is still unknown, but O'Connell-Rodwell, a postdoctoral researcher at Stanford University, proposes that ele-phants 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 \_\_\_\_\_.

## PASSAGE 6

**Ancient Chinese Chariots**

(注：节选自原文 4~6 段)

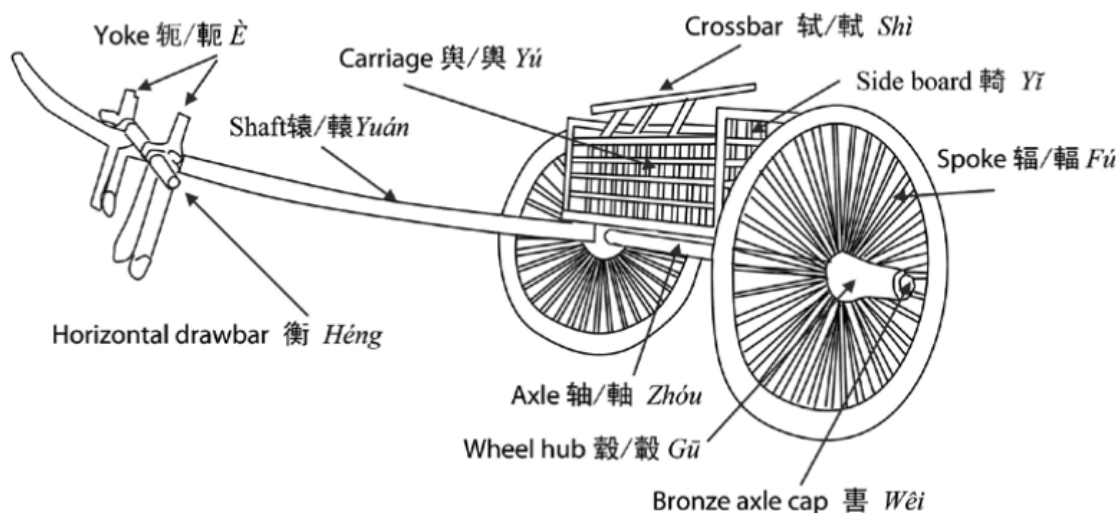
Excavation of ancient Chinese chariots has confirmed the descriptions of them in the earliest texts. Wheels were constructed from a variety of woods: elm provided the hub, rose-wood the spokes and oak the felloes. The hub was drilled through to form an empty space into which the tempered axle was fitted, the whole being covered with leather to retain lubricating oil. Though the number of spokes varied, a wheel by the fourth century BC usually had eighteen to thirty-two of them. Records show how elaborate was the testing of each completed wheel: flotation and weighing were regarded as the best measures of balance, but even the empty spaces in the assembly were checked with millet grains. One outstanding constructional asset of the ancient Chinese wheel was dishing. Dishing refers to the dish-like shape of an advanced wooden wheel, which looks rather like a flat cone. On occasion they chose to strengthen a dished wheel with a pair of struts running from rim to rim on each of the hub. As these extra supports were inserted separately into the felloes, they would have added even greater strength to the wheel. Leather wrapped up the edge of the wheel aimed to retain bronze.

Within a millennium, however, Chinese chariot-makers had developed a vehicle with shafts, the precursor of the true carriage or cart. This design did not make its appearance in Europe until the end of the Roman Empire. Because the shafts curved upwards, and the harness pressed against a horse's shoulders, not his neck, the shaft chariot was incredibly efficient. The halberd was also part of a chariot standard weaponry. This halberd usually measured well over 3 metres in length, which meant that a chariot warrior wielding it sideways could strike down the charioteer in a passing chariot. The speed of the chariot which was tested on the sand was quite fast. At speed these passes were very dangerous for the crews of both chariots.

The advantages offered by the new chariots were not entirely missed. They could see how there were literally the Warring States, whose conflicts lasted down the Qin unification of China. Qin Shi Huang was buried in the most opulent tomb complex ever constructed in China, a sprawling, city-size collection of underground caverns containing everything the emperor would need for the afterlife. Even a collection of terracotta armies called Terra-Cotta Warriors was buried in it. The ancient Chinese, along with many cultures including ancient Egyptians, believed that items and even people buried with a person could be taken with him to the afterlife.

**Questions 18 - 23**

Choose **NO MORE THAN TWO WORDS AND/OR NUMBERS** from the passage for each answer.



- 18 The hub is made of wood from the tree of \_\_\_\_\_.
- 19 The room through the hub was to put tempered axle, which is wrapped up by leather, aiming to retain \_\_\_\_\_.
- 20 The number of spokes varies from \_\_\_\_\_.
- 21 The shape of wheel resembles a \_\_\_\_\_.
- 22 Two \_\_\_\_\_ was used to strengthen the wheel.
- 23 The edge of the wheel was wrapped up by leather aiming to retain \_\_\_\_\_.

**Questions 24 - 26**

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

- 24 What body part of the horse was released from pressure to the horse shoulder after the appearance of the shafts \_\_\_\_\_
- 25 What kind of road surface did the researchers measure the speed of the chariot on \_\_\_\_\_
- 26 What part of the afterlife palace was the Emperor Qin Shi Huang buried in \_\_\_\_\_

# **INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM**

## **READING**

### **UNIT 2    判断题专项训练**



## PASSAGE 7

**Internal Market: Selling the Brand Inside**

*When you think of marketing, you more than likely think of marketing to your customers: How can you persuade more people to buy what you sell? But another “market” is just as important: your employees, the very people who can make the brand come alive for your customers. Yet in our work helping executives develop and carry out branding campaigns, my colleagues and I have found that companies very often ignore this critical constituency.*

Why is internal marketing so important? First, because it’s the best way to help employees make a powerful emotional connection to the products and services you sell. Without that connection, employees are likely to undermine the expectations set by your advertising. In some cases, this is because they simply don’t understand what you have promised the public, so they end up working at cross-purposes. In other cases, it may be they don’t actually believe in the brand and feel disengaged or, worse, hostile toward the company. We’ve found that when people care about and believe in the brand, they’re motivated to work harder and their loyalty to the company increases. Employees are united and inspired by a common sense of purpose and identity.

Unfortunately, in most companies, internal marketing is done poorly, if at all. While executives recognise the need to keep people informed about the company’s strategy and direction, few understand the need to convince employees of the brand’s power—they take it as a given.

Employees need to hear the same messages that you send out to the marketplace. At most companies, however, internal and external communications are often mismatched. This can be very confusing, and it threatens employees’ perceptions of the company’s integrity: They are told one thing by management but observe that a different message is being sent to the public. One health insurance company, for instance, advertised that the welfare of patients was the company’s number one priority, while employees were told that their main goal was to increase the value of their stock options through cost reductions. And one major financial services institution told customers that it was making a major shift in focus from being a financial retailer to a financial adviser, but, a year later, research showed that the customer experience with the company had not changed. It turned out that company leaders had not made an effort to sell the change internally, so employees were still churning out transactions and hadn’t changed their behaviour to match their new adviser role.

Enabling employees to deliver on customer expectations is important, of course, but it's not the only reason a company needs to match internal and external messages. Another reason is to help push the company to achieve goals that might otherwise be out of reach. In 1997, when IBM launched its e-business campaign (which is widely credited for turning around the company's image), it chose to ignore research that suggested consumers were unprepared to embrace IBM as a leader in e-business. Although to the outside world this looked like an external marketing effort, IBM was also using the campaign to align employees around the idea of the Internet as the future of technology. The internal campaign changed the way employees thought about everything they did, from how they named products to how they organised staff to how they approached selling. The campaign was successful largely because it gave employees a sense of direction and purpose, which in turn restored their confidence in IBM's ability to predict the future and lead the technology industry. Today, research shows that people are four times more likely to associate the term "e-business" with IBM than with its nearest competitor.

Perhaps even more important, by taking employees into account, a company can avoid creating a message that doesn't resonate with staff or, worse, one that builds resentment. In 1996, United Airlines shelved its "Come Fly the Friendly Skies" slogan when presented with a survey that revealed the depth of customer resentment toward the airline industry. In an effort to own up to the industry's shortcomings, United launched a new campaign, "Rising," in which it sought to differentiate itself by acknowledging poor service and promising incremental improvements such as better meals. While this was a logical premise for the campaign given the tenor of the times, a campaign focusing on customers' distaste for flying was deeply discouraging to the staff. Employee resentment ultimately made it impossible for United to deliver the improvements it was promising, which in turn undermined the "Rising" pledge. Three years later, United decided employee opposition was undermining its success and pulled the campaign. It has since moved to a more inclusive brand message with the line "United," which both audiences can embrace. Here, a fundamental principle of advertising—find and address a customer concern—failed United because it did not consider the internal market.

When it comes to execution, the most common and effective way to link internal and external marketing campaigns is to create external advertising that targets both audiences. IBM used this tactic very effectively when it launched its e-business campaign. It took out an eight-page ad in the Wall Street Journal declaring its new vision, a message directed at both customers and internal stakeholders. This is an expensive way to capture attention, but if used sparingly,

it is the most powerful form of communication; in fact, you need do it only once for everyone in the company to read it. There's a symbolic advantage as well. Such a tactic signals that the company is taking its pledge very seriously; it also signals transparency—the same message going out to both audiences.

Advertising isn't the only way to link internal and external marketing. At Nike, a number of senior executives now hold the additional title of "Corporate Storyteller." They deliberately avoid stories of financial successes and concentrate on parables of "just doing it," reflecting and reinforcing the company's ad campaigns. One tale, for example, recalls how legendary coach and Nike cofounder Bill Bowerman, in an effort to build a better shoe for his team, poured rubber into the family waffle iron, giving birth to the prototype of Nike's famous Waffle Sole. By talking about such inventive moves, the company hopes to keep the spirit of innovation that characterises its ad campaigns alive and well within the company.

But while their messages must be aligned, companies must also keep external promises a little ahead of internal realities. Such promises provide incentives for employees and give them something to live up to. In the 1980s, Ford turned "Quality Is Job 1" from an internal rallying cry into a consumer slogan in response to the threat from cheaper, more reliable Japanese cars. It did so before the claim was fully justified, but by placing it in the public arena, it gave employees an incentive to match the Japanese. If the promise is pushed too far ahead, however, it loses credibility. When a beleaguered British Rail launched a campaign announcing service improvements under the banner "We're Getting There," it did so prematurely. By drawing attention to the gap between the promise and the reality, it prompted destructive press coverage. This, in turn, demoralised staff, who had been legitimately proud of the service advances they had made.

### **Questions 33 - 40**

**YES** if the statement agrees with the claims of the writer

**NO** if the statement contradicts with the claims of the writer

**NOT GIVEN** if it is impossible to say what the writer thinks about this

33. A strong conviction in the brand can contribute to higher job performance.

34. It is common for companies to overlook the necessity for internal communication.

35. Consumers were ready to view IBM as a leader in e-business before the advertising campaign.

36. United Airlines' failure in its branding campaign was due to the bad advice of an advertisement agency.
37. United Airlines eventually abolished its campaign to boost image as the result of a market research.
38. It is an expensive mistake for IBM to launch its new e-business campaign.
39. Nike employees claimed that they were inspired by their company tales.
40. A slight difference between internal and external promises can create a sense of purpose.

**PASSAGE 8****Classifying Societies**

Although humans have established many types of societies throughout history, sociologists and anthropologists tend to classify different societies according to the degree to which different groups within a society have unequal access to advantages such as resources, prestige or power, and usually refer to four basic types of societies. From least to most socially complex they are clans, tribes, chiefdoms and states.

**Clan**

These are small-scale societies of hunters and gatherers, generally of fewer than 100 people, who move seasonally to exploit wild (undomesticated) food resources. Most surviving hunter-gatherer groups are of this kind, such as the Hadza of Tanzania or the San of southern Africa. Clan members are generally kinsfolk, related by descent or marriage. Clans lack formal leaders, so there are no marked economic differences or disparities in status among their members.

Because clans are composed of mobile groups of hunter-gatherers, their sites consist mainly of seasonally occupied camps, and other smaller and more specialised sites. Among the latter are kill or butchery sites—locations where large mammals are killed and sometimes butchered—and work sites, where tools are made or other specific activities carried out. The base camp of such a group may give evidence of rather insubstantial dwellings or temporary shelters, along with the debris of residential occupation.

**Tribe**

These are generally larger than mobile hunter-gatherer groups, but rarely number more than a few thousand, and their diet or subsistence is based largely on cultivated plants and domesticated animals. Typically, they are settled farmers, but they may be nomadic with a very different, mobile economy based on the intensive exploitation of livestock. These are generally multi-community societies, with the individual communities integrated into the larger society through kinship ties. Although some tribes have officials and even a “capital” or seat of government, such officials lack the economic base necessary for effective use of power.

The typical settlement pattern for tribes is one of settled agricultural homesteads or villages. Characteristically, no one settlement dominates any of the others in the region. Instead, the

archaeologist finds evidence for isolated, permanently occupied houses or for permanent villages. Such villages may be made up of a collection of free-standing houses, like those of the first farms of the Danube valley in Europe. Or they may be clusters of buildings grouped together, for example, the pueblos of the American Southwest, and the early farming village or small town of Çatalhöyük in modern Turkey.

### **Chieftdom**

These operate on the principle of ranking—differences in social status between people. Different lineages (a lineage is a group claiming descent from a common ancestor) are graded on a scale of prestige, and the senior lineage, and hence the society as a whole, is governed by a chief. Prestige and rank are determined by how closely related one is to the chief, and there is no true stratification into classes. The role of the chief is crucial.

Often, there is local specialisation in craft products, and surpluses of these and of foodstuffs are periodically paid as obligation to the chief. He uses these to maintain his retainers, and may use them for redistribution to his subjects. The chieftdom generally has a center of power, often with temples, residences of the chief and his retainers, and craft specialists. Chieftdoms vary greatly in size, but the range is generally between about 5000 and 20,000 persons.

### **Early State**

These preserve many of the features of chieftdoms, but the ruler (perhaps a king or sometimes a queen) has explicit authority to establish laws and also to enforce them by the use of a standing army. Society no longer depends totally upon kin relationships: it is now stratified into different classes. Agricultural workers and the poorer urban dwellers form the lowest classes, with the craft specialists above, and the priests and kinsfolk of the ruler higher still. The functions of the ruler are often separated from those of the priest: palace is distinguished from temple. The society is viewed as a territory owned by the ruling lineage and populated by tenants who have an obligation to pay taxes. The central capital houses a bureaucratic administration of officials; one of their principal purposes is to collect revenue (often in the form of taxes and tolls) and distribute it to government, army and craft specialists. Many early states developed complex redistribution systems to support these essential services.

This rather simple social typology, set out by Elman Service and elaborated by William Sanders and Joseph Marino, can be criticised, and it should not be used unthinkingly. Nevertheless, if we are seeking to talk about early societies, we must use words and hence

concepts to do so. Service's categories provide a good framework to help organise our thoughts.

**Questions 1 - 7**

**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. There's little economic difference between members of a clan.
2. The farmers of a tribe grow a wide range of plants.
3. One settlement is more important than any other settlements in a tribe.
4. A member's status in a chiefdom is determined by how much land he owns.
5. There are people who craft goods in chiefdoms.
6. The king keeps the order of a state by using an army.
7. Bureaucratic officers receive higher salaries than other members.

## PASSAGE 9

**Musical Maladies**

*Norman M. Weinberger reviews the latest work of Oliver Sacks on music.*

Music and the brain are both endlessly fascinating subjects, and as a neuroscientist specialising in auditory learning and memory, I find them especially intriguing. So I had high expectations of *Musicophilia*, the latest offering from neurologist and prolific author Oliver Sacks. And I confess to feeling a little guilty reporting that my reactions to the book are mixed.

Sacks himself is the best part of *Musicophilia*. He richly documents his own life in the book and reveals highly personal experiences. The photograph of him on the cover of the book—which shows him wearing headphones, eyes closed, clearly enchanted as he listens to Alfred Brendel perform Beethoven's *Pathétique* Sonata—makes a positive impression that is borne out by the contents of the book. Sacks's voice throughout is steady and erudite but never pontifical. He is neither self-conscious nor self-promoting.

The preface gives a good idea of what the book will deliver. In it Sacks explains that he wants to convey the insights gleaned from the “enormous and rapidly growing body of work on the neural underpinnings of musical perception and imagery, and the complex and often bizarre disorders to which these are prone.” He also stresses the importance of “the simple art of observation” and “the richness of the human context.” He wants to combine “observation and description with the latest in technology,” he says, and to imaginatively enter into the experience of his patients and subjects. The reader can see that Sacks, who has been practicing neurology for 40 years, is torn between the “old-fashioned” path of observation and the newfangled, high-tech approach: He knows that he needs to take heed of the latter, but his heart lies with the former.

The book consists mainly of detailed descriptions of cases, most of them involving patients whom Sacks has seen in his practice. Brief discussions of contemporary neuroscientific reports are sprinkled liberally throughout the text. Part I, “Haunted by Music,” begins with the strange case of Tony Cicoria, a nonmusical, middle-aged surgeon who was consumed by a love of music after being hit by lightning. He suddenly began to crave listening to piano music, which he had never cared for in the past. He started to play the piano and then to compose music, which arose spontaneously in his mind in a “torrent” of notes. How could this happen? Was the cause psychological? (He had had a near-death experience when the lightning struck



him.) Or was it the direct result of a change in the auditory regions of his cerebral cortex? Electroencephalography (EEG) showed his brain waves to be normal in the mid-1990s, just after his trauma and subsequent “conversion” to music. There are now more sensitive tests, but Cicoria has declined to undergo them; he does not want to delve into the causes of his musicality. What a shame!

Part II, “A Range of Musicality,” covers a wider variety of topics, but unfortunately, some of the chapters offer little or nothing that is new. For example, chapter 13, which is five pages long, merely notes that the blind often have better hearing than the sighted. The most interesting chapters are those that present the strangest cases. Chapter 8 is about “amusia,” an inability to hear sounds as music, and “dysharmonia,” a highly specific impairment of the ability to hear harmony, with the ability to understand melody left intact. Such specific “dissociations” are found throughout the cases Sacks recounts.

To Sacks’s credit, part III, “Memory, Movement and Music,” brings us into the underappreciated realm of music therapy. Chapter 16 explains how “melodic intonation therapy” is being used to help expressive aphasic patients (those unable to express their thoughts verbally following a stroke or other cerebral incident) once again become capable of fluent speech. In chapter 20, Sacks demonstrates the near-miraculous power of music to animate Parkinson’s patients and other people with severe movement disorders, even those who are frozen into odd postures. Scientists cannot yet explain how music achieves this effect.

To readers who are unfamiliar with neuroscience and music behaviour, *Musicophilia* may be something of a revelation. But the book will not satisfy those seeking the causes and implications of the phenomena Sacks describes. For one thing, Sacks appears to be more at ease discussing patients than discussing experiments. And he tends to be rather uncritical in accepting scientific findings and theories.

It’s true that the causes of music-brain oddities remain poorly understood. However, Sacks could have done more to draw out some of the implications of the careful observations that he and other neurologists have made and of the treatments that have been successful. For example, he might have noted that the many specific dissociations among components of music comprehension, such as loss of the ability to perceive harmony but not melody, indicate that there is no music center in the brain. Because many people who read the book are likely to believe in the brain localisation of all mental functions, this was a missed educational opportunity.

Another conclusion one could draw is that there seem to be no “cures” for neurological problems involving music. A drug can alleviate a symptom in one patient and aggravate it in another, or can have both positive and negative effects in the same patient. Treatments mentioned seem to be almost exclusively antiepileptic medications, which “damp down” the excitability of the brain in general; their effectiveness varies widely.

Finally, in many of the cases described here the patient with music-brain symptoms is reported to have “normal” EEG results. Although Sacks recognises the existence of new technologies, among them far more sensitive ways to analyze brain waves than the standard neurological EEG test, he does not call for their use. In fact, although he exhibits the greatest compassion for patients, he conveys no sense of urgency about the pursuit of new avenues in the diagnosis and treatment of music-brain disorders. This absence echoes the book’s preface, in which Sacks expresses fear that “the simple art of observation may be lost” if we rely too much on new technologies. He does call for both approaches, though, and we can only hope that the neurological community will respond.

### **Questions 31 - 36**

**YES** if the statement agrees with the views of the writer

**NO** if the statement contradicts with the views of the writer

**NOT GIVEN** if it is impossible to say what the writer thinks about this

- 31. It is difficult to give a well-reputable writer a less than favourable review.
- 32. Beethoven’s Pathétique Sonata is a good treatment for musical disorders.
- 33. Sacks believes technological methods is not important compared with observation when studying his patients.
- 34. It is difficult to understand why music therapy is undervalued.
- 35. Sacks should have more skepticism about other theories and findings.
- 36. Sacks is impatient to use new testing methods.

## PASSAGE 10

**Does IQ Test Prove Creativity?**

(注：节选自原文 1~4 段)

*Everyone has creativity, some a lot more than others. The development of humans, and possibly the universe, depends on it. Yet creativity is an elusive creature. What do we mean by it? What is going on in our brains when ideas form? Does it feel the same for artists and scientists? We asked writers and neuroscientists, pop stars and AI gurus to try to deconstruct the creative process — and learn how we can all ignite the spark within.*

In the early 1970s, creativity was still seen as a type of intelligence. But when more subtle tests of IQ and creative skills were developed in the 1970s, particularly by the father of creativity testing, Paul Torrance, it became clear that the link was not so simple. Creative people are intelligent, in terms of IQ tests at least, but only averagely or just above. While it depends on the discipline, in general beyond a certain level IQ does not help boost creativity; it is necessary, but not sufficient to make someone creative.

Because of the difficulty of studying the actual process, most early attempts to study creativity concentrated on personality. According to creativity specialist Mark Runco of California State University, Fullerton, the “creative personality” tends to place a high value on aesthetic qualities and to have broad interests, providing lots of resources to draw on and knowledge to recombine into novel solutions. “Creatives” have an attraction to complexity and an ability to handle conflict. They are also usually highly self-motivated, perhaps even a little obsessive.

But there may be a price to pay for having a creative personality. For centuries, a link has been made between creativity and mental illness. Psychiatrist Jamison of Johns Hopkins University in Baltimore, Maryland, found that established artists are significantly more likely to have mood disorders. But she also suggests that a change of mood state might be the key to triggering a creative event, rather than the negative mood itself. Intelligence can help channel this thought style into great creativity, but when combined with emotional problems, lateral, divergent or open thinking can lead to mental illness instead.

Jordan Peterson, a psychologist at the University of Toronto, Canada, believes he has identified a mechanism that could help explain this. He says that the brains of creative people seem more open to incoming stimuli than less creative types. Our senses are continuously

feeding a mass of information into our brains, which have to block or ignore most of it to save us from being snowed under. Peterson calls this process latent inhibition, and argues that people who have less of it, and who have a reasonably high IQ with a good working memory can juggle more of the data, and so may be open to more possibilities and ideas. The downside of extremely low latent inhibition may be a confused thought style that predisposes people to mental illness. So for Peterson, mental illness is not a prerequisite for creativity, but it shares some cognitive traits.

**Questions 14 - 17**

**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. High IQ guarantees better creative ability in one person than that who achieves an average score in an IQ test.

15. In a competitive society, individuals' language proficiency is more important than other abilities.

16. A wider range of resources and knowledge can be integrated by more creative people into bringing about creative approaches.

17. A creative person does not necessarily suffer more mental illness.

# **INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM**

## **READING**

### **UNIT 3    标题题专项训练**

## PASSAGE 11

### Questions 1 - 7

Reading Passage 1 has seven paragraphs, A-G.

Choose the most suitable heading for paragraphs A-G from the list of headings below.

- i General points of agreements and disagreements of researchers
- ii How much children really know about food
- iii Need to take action
- iv Advertising effects of the “Big Four”
- v Connection of advertising and children’s weight problems
- vi Evidence that advertising affects what children buy to eat
- vii How parents influence children’s eating habits
- viii Advertising’s focus on unhealthy options
- ix Children often buy what they want
- x Underestimating the effects advertising has on children

- 1. Paragraph A \_\_\_\_\_
- 2. Paragraph B \_\_\_\_\_
- 3. Paragraph C \_\_\_\_\_
- 4. Paragraph D \_\_\_\_\_
- 5. Paragraph E \_\_\_\_\_
- 6. Paragraph F \_\_\_\_\_
- 7. Paragraph G \_\_\_\_\_

## REVIEW OF RESEARCH ON THE EFFECTS OF FOOD PROMOTION TO CHILDREN

*This review was commissioned by the Food Standards Agency to examine the current research evidence on:*

- *the extent and nature of food promotion to children*
- *the effect, if any, that this promotion has on their food knowledge, preferences and behaviour.*

**A** Children’s food promotion is dominated by television advertising, and the great majority of this promotes the so-called ‘Big Four’ of pre-sugared breakfast cereals, soft-drinks, confectionary and savoury snacks. In the last ten years advertising for fast food outlets has

rapidly increased. There is some evidence that the dominance of television has recently begun to wane. The importance of strong, global branding reinforces a need for multi-faceted communications combining television with merchandising, 'tie-ins' and point of sale activity. The advertised diet contrasts sharply with that recommended by public health advisors, and themes of fun and fantasy or taste, rather than health and nutrition, are used to promote it to children. Meanwhile, the recommended diet gets little promotional support.

**B** There is plenty of evidence that children notice and enjoy food promotion. However, establishing whether this actually influences them is a complex problem. The review tackled it by looking at studies that had examined possible effects on what children know about food, their food preferences, their actual food behaviour (both buying and eating), and their health outcomes (eg. obesity or cholesterol levels). The majority of studies examined food advertising, but a few examined other forms of food promotion. In terms of nutritional knowledge, food advertising seems to have little influence on children's general perceptions of what constitutes a healthy diet, but, in certain contexts, it does have an effect on more specific types of nutritional knowledge. For example, seeing soft drink and cereal adverts reduced primary aged children's ability to determine correctly whether or not certain products contained real fruit.

**C** The review also found evidence that food promotion influences children's food preferences and their purchase behaviour. A study of primary school children, for instance, found that exposure to advertising influenced which foods they claimed to like; and another showed that labelling and signage on a vending machine had an effect on what was bought by secondary school pupils. A number of studies have also shown that food advertising can influence what children eat. One, for example, showed that advertising influenced a primary class's choice of daily snack at playtime.

**D** The next step, of trying to establish whether or not a link exists between food promotion and diet or obesity, is extremely difficult as it requires research to be done in real world settings. A number of studies have attempted this by using amount of television viewing as a proxy for exposure to television advertising. They have established a clear link between television viewing and diet, obesity, and cholesterol levels. It is impossible to say, however, whether this effect is caused by the advertising, the sedentary nature of television viewing or snacking that might take place whilst viewing. One study resolved this problem by taking a detailed diary of children's viewing habits. This showed that the more food adverts they saw, the more snacks and calories they consumed.

**E** Thus the literature does suggest food promotion is influencing children's diet in a number of ways. This does not amount to proof; as noted above with this kind of research, incontrovertible proof simply isn't attainable. Nor do all studies point to this conclusion; several have not found an effect. In addition, very few studies have attempted to measure how strong these effects are relative to other factors influencing children's food choices. Nonetheless, many studies have found clear effects and they have used sophisticated methodologies that make it possible to determine that i) these effects are not just due to chance; ii) they are independent of other factors that may influence diet, such as parents' eating habits or attitudes; and iii) they occur at a brand and category level.

**F** Furthermore, two factors suggest that these findings actually down-play the effect that food promotion has on children. First, the literature focuses principally on television advertising; the cumulative effect of this combined with other forms of promotion and marketing is likely to be significantly greater. Second, the studies have looked at direct effects on individual children, and understate indirect influences. For example, promotion for fast food outlets may not only influence the child, but also encourage parents to take them for meals and reinforce the idea that this is a normal and desirable behaviour.

**G** This does not amount to proof of an effect, but in our view does provide sufficient evidence to conclude that an effect exists. The debate should now shift to what action is needed, and specifically to how the power of commercial marketing can be used to bring about improvements in young people's eating.

### Questions 8 - 13 判断题 T/F/NG

8. There is little difference between the number of healthy food advertisements and the number of unhealthy food advertisements.
9. TV advertising has successfully taught children nutritional knowledge about vitamins and others.
10. It is hard to decide which aspect of TV viewing has caused weight problems of children.
11. The preference of food for children is affected by their age and gender.
12. Wealthy parents tend to buy more "sensible food" for their children.
13. There is a lack of investigation on food promotion methods other than TV advertising.



**PASSAGE 12****Questions 14 - 20**

Reading Passage 2 has seven paragraphs, A-G.

Choose the most suitable heading for paragraphs A-G from the list of headings below.

- i The positive correlation between climate and wealth
- ii Other factors besides climate that influence wealth
- iii Inspiration from reading a book
- iv Other researchers' results do not rule out exceptional cases
- v Different attributes between Eurasia and Africa
- vi Low temperature benefits people and crops
- vii The importance of institution in traditional views
- viii The spread of crops in Europe, Asia and other places
- ix The best way to use aid
- x Confusions and exceptions

- 14. Paragraph A
- 15. Paragraph B
- 16. Paragraph C
- 17. Paragraph D
- 18. Paragraph E
- 19. Paragraph F
- 20. Paragraph G

**Wealth in a Cold Climate**

*Latitude is crucial to a nation's economic strength.*

**A** Dr William Masters was reading a book about mosquitoes when inspiration struck. "There was this anecdote about the great yellow-fever epidemic that hit Philadelphia in 1793," Masters recalls. "This epidemic decimated the city until the first frost came." The inclement weather froze out the insects, allowing Philadelphia to recover.

**B** If weather could be the key to a city's fortunes, Masters thought, then why not to the historical fortunes of nations? And could frost lie at the heart of one of the most enduring economic mysteries of all—why are almost all the wealthy, industrialised nations to be found

at latitudes above 40 degrees? After two years of research, he thinks that he has found a piece of the puzzle. Masters, an agricultural economist from Purdue University in Indiana, and Margaret McMillan at Tufts University, Boston, show that annual frosts are among the factors that distinguish rich nations from poor ones. Their study is published this month in the *Journal of Economic Growth*. The pair speculate that cold snaps have two main benefits—they freeze pests that would otherwise destroy crops, and also freeze organisms, such as mosquitoes, that carry disease. The result is agricultural abundance and a big workforce.

**C** The academics took two sets of information. The first was average income for countries, the second climate data from the University of East Anglia. They found a curious tally between the sets. Countries having five or more frosty days a month are uniformly rich, those with fewer than five are impoverished. The authors speculate that the five-day figure is important; it could be the minimum time needed to kill pests in the soil. Masters says: “For example, Finland is a small country that is growing quickly, but Bolivia is a small country that isn’t growing at all. Perhaps climate has something to do with that.” In fact, limited frosts bring huge benefits to farmers. The chills kill insects or render them inactive; cold weather slows the break-up of plant and animal material in the soil, allowing it to become richer; and frosts ensure a build-up of moisture in the ground for spring, reducing dependence on seasonal rains. There are exceptions to the “cold equals rich” argument. There are well-heeled tropical places such as Hong Kong and Singapore, a result of their superior trading positions. Likewise, not all European countries are moneyed—in some colonies, economic potential was crushed by politics.

**D** Masters stresses that climate will never be the overriding factor—the wealth of nations is too complicated to be attributable to just one factor. Climate, he feels, somehow combines with other factors—such as the presence of institutions, including governments, and access to trading routes—to determine whether a country will do well. Traditionally, Masters says, economists thought that institutions had the biggest effect on the economy, because they brought order to a country in the form of, for example, laws and property rights. With order, so the thinking went, came affluence. “But there are some problems that even countries with institutions have not been able to get around,” he says. “My feeling is that, as countries get richer, they get better institutions. And the accumulation of wealth and improvement in governing institutions are both helped by a favourable environment, including climate.”

**E** This does not mean, he insists, that tropical countries are beyond economic help and destined to remain penniless. Instead, richer countries should change the way in which foreign

aid is given. Instead of aid being geared towards improving governance, it should be spent on technology to improve agriculture and to combat disease. Masters cites one example: "There are regions in India that have been provided with irrigation—agricultural productivity has gone up and there has been an improvement in health." Supplying vaccines against tropical diseases and developing crop varieties that can grow in the tropics would break the poverty cycle.

**F** Other minds have applied themselves to the split between poor and rich nations, citing anthropological, climatic and zoological reasons for why temperate nations are the most affluent. In 350BC, Aristotle observed that "those who live in a cold climate...are full of spirit". Jared Diamond, from the University of California at Los Angeles, pointed out in his book *Guns, Germs and Steel* that Eurasia is broadly aligned east-west, while Africa and the Americas are aligned north-south. So, in Europe, crops can spread quickly across latitudes because climates are similar. One of the first domesticated crops, einkorn wheat, spread quickly from the Middle East into Europe; it took twice as long for corn to spread from Mexico to what is now the eastern United States. This easy movement along similar latitudes in Eurasia would also have meant a faster dissemination of other technologies such as the wheel and writing, Diamond speculates. The region also boasted domesticated livestock, which could provide meat, wool and motive power in the fields. Blessed with such natural advantages, Eurasia was bound to take off economically.

**G** John Gallup and Jeffrey Sachs, two US economists, have also pointed out striking correlations between the geographical location of countries and their wealth. They note that tropical countries between 23.45 degrees north and south of the equator are nearly all poor. In an article for the *Harvard International Review*, they concluded that "development surely seems to favour the temperate-zone economies, especially those in the northern hemisphere, and those that have managed to avoid both certain political systems and the ravages of war". But Masters cautions against geographical determinism, the idea that tropical countries are beyond hope: "Human health and agriculture can be made better through scientific and technological research," he says, "so we shouldn't be writing off these countries. Take Singapore: without air conditioning, it wouldn't be rich."

**Questions 21 - 26**

Complete the summary below.

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

Dr William Masters read a book saying that a(n) **21** \_\_\_\_\_ struck an American city hundreds of years ago was terminated by a cold frost. And academics found that there is a connection between climate and country's wealth as in the rich but small country of **22** \_\_\_\_\_. Yet besides excellent surroundings and climate, one country still needs to improve their **23** \_\_\_\_\_ to achieve long prosperity.

Thanks to resembling weather conditions across latitude in the continent of **24** \_\_\_\_\_, crops such as **25** \_\_\_\_\_ is bound to spread faster than from South America to the North. Other researchers also noted that even though geo-graphical factors are important, tropical country such as **26** \_\_\_\_\_ still became rich due to scientific advancement.

**PASSAGE 13****Questions 14 - 19**

Reading Passage 2 has six paragraphs, A-F.

Choose the correct heading for each paragraph from the list of headings below.

- i Unsuccessful deceit
- ii Biological basis between liars and artists
- iii How to lie in an artistic way
- iv Confabulations and the exemplifiers
- v The distinction between artists and common liars
- vi The fine line between liars and artists
- vii The definition of confabulation
- viii Creativity when people lie

- 14. Paragraph A
- 15. Paragraph B
- 16. Paragraph C
- 17. Paragraph D
- 18. Paragraph E
- 19. Paragraph F

**Are Artists Liars?**

**A** Shortly before his death, Marlon Brando was working on a series of instructional videos about acting, to be called “Lying for a Living”. On the surviving footage, Brando can be seen dispensing gnomish advice on his craft to a group of enthusiastic, if somewhat bemused, Hollywood stars, including Leonardo Di Caprio and Sean Penn. Brando also recruited random people from the Los Angeles street and persuaded them to improvise (the footage is said to include a memorable scene featuring two dwarves and a giant Samoan). “If you can lie, you can act,” Brando told Jod Kaftan, a writer for Rolling Stone and one of the few people to have viewed the footage. “Are you good at lying?” asked Kaftan. “Jesus,” said Brando, “I’m fabulous at it.”

**B** Brando was not the first person to note that the line between an artist and a liar is a fine one. If art is a kind of lying, then lying is a form of art, albeit of a lower order—as Oscar Wilde

and Mark Twain have observed. Indeed, lying and artistic storytelling spring from a common neurological root—one that is exposed in the cases of psychiatric patients who suffer from a particular kind of impairment. Both liars and artists refuse to accept the tyranny of reality. Both carefully craft stories that are worthy of belief—a skill requiring intellectual sophistication, emotional sensitivity and physical self-control (liars are writers and performers of their own work). Such parallels are hardly coincidental, as I discovered while researching my book on lying.

**C** A case study published in 1985 by Antonio Damasio, a neurologist, tells the story of a middle-aged woman with brain damage caused by a series of strokes. She retained cognitive abilities, including coherent speech, but what she actually said was rather unpredictable. Checking her knowledge of contemporary events, Damasio asked her about the Falklands War. In the language of psychiatry, this woman was “confabulating”. Chronic confabulation is a rare type of memory problem that affects a small proportion of brain-damaged people. In the literature it is defined as “the production of fabricated, distorted or misinterpreted memories about oneself or the world, without the conscious intention to deceive”. Whereas amnesiacs make errors of omission—there are gaps in their recollections they find impossible to fill—confabulators make errors of commission: they make things up. Rather than forgetting, they are inventing. Confabulating patients are nearly always oblivious to their own condition, and will earnestly give absurdly implausible explanations of why they’re in hospital, or talking to a doctor. One patient, asked about his surgical scar, explained that during the Second World War he surprised a teenage girl who shot him three times in the head, killing him, only for surgery to bring him back to life. The same patient, when asked about his family, described how at various times they had died in his arms, or had been killed before his eyes. Others tell yet more fantastical tales, about trips to the moon, fighting alongside Alexander in India or seeing Jesus on the Cross. Confabulators aren’t out to deceive. They engage in what Morris Moscovitch, a neuropsychologist, calls “honest lying”. Uncertain, and obscurely distressed by their uncertainty, they are seized by a “compulsion to narrate”: a deep-seated need to shape, order and explain what they do not understand. Chronic confabulators are often highly inventive at the verbal level, jamming together words in nonsensical but suggestive ways: one patient, when asked what happened to Queen Marie Antoinette of France, answered that she had been “suicided” by her family. In a sense, these patients are like novelists, as described by Henry James: people on whom “nothing is wasted”. Unlike writers, however, they have little or no control over their own material.

**D** The wider significance of this condition is what it tells us about ourselves. Evidently there is a gushing river of verbal creativity in the normal human mind, from which both artistic invention and lying are drawn. We are born storytellers, spinning narrative out of our experience and imagination, straining against the leash that keeps us tethered to reality. This is a wonderful thing; it is what gives us our ability to conceive of alternative futures and different worlds. And it helps us to understand our own lives through the entertaining stories of others. But it can lead us into trouble, particularly when we try to persuade others that our inventions are real. Most of the time, as our stories bubble up to consciousness, we exercise our cerebral censors, controlling which stories we tell, and to whom. Yet people lie for all sorts of reasons, including the fact that confabulating can be dangerously fun.

**E** During a now-famous libel case in 1996, Jonathan Aitken, a former cabinet minister, recounted a tale to illustrate the horrors he endured after a national newspaper tainted his name. The case, which stretched on for more than two years, involved a series of claims made by the Guardian about Aitken's relationships with Saudi arms dealers, including meetings he allegedly held with them on a trip to Paris while he was a government minister. What amazed many in hindsight was the sheer superfluity of the lies Aitken told during his testimony. Aitken's case collapsed in June 1997, when the defence finally found indisputable evidence about his Paris trip. Until then, Aitken's charm, fluency and flair for theatrical displays of sincerity looked as if they might bring him victory. They revealed that not only was Aitken's daughter not with him that day (when he was indeed doorstepped), but also that the minister had simply got into his car and drove off, with no vehicle in pursuit.

**F** Of course, unlike Aitken, actors, playwrights and novelists are not literally attempting to deceive us, because the rules are laid out in advance: come to the theatre, or open this book, and we'll lie to you. Perhaps this is why we felt it necessary to invent art in the first place: as a safe space into which our lies can be corralled, and channeled into something socially useful. Given the universal compulsion to tell stories, art is the best way to refine and enjoy the particularly outlandish or insightful ones. But that is not the whole story. The key way in which artistic "lies" differ from normal lies, and from the "honest lying" of chronic confabulators, is that they have a meaning and resonance beyond their creator. The liar lies on behalf of himself; the artist tell lies on behalf of everyone. If writers have a compulsion to narrate, they compel themselves to find insights about the human condition. Mario Vargas Llosa has written that novels "express a curious truth that can only be expressed in a furtive and veiled fashion, masquerading as what it is not." Art is a lie whose secret ingredient is truth.

**Questions 20 - 21**

**20 - 21 Which TWO of the following statements about people suffering from confabulation are true?**

- A They have lost cognitive abilities.
- B They do not deliberately tell a lie.
- C They are normally aware of their condition.
- D They do not have the impetus to explain what they do not understand.
- E They try to make up stories.

**Questions 22 - 23**

**22 - 23 Which TWO of the following statements about playwrights and novelists are true?**

- A They give more meaning to the stories.
- B They tell lies for the benefit of themselves.
- C They have nothing to do with the truth out there.
- D We can be misled by them if not careful.
- E We know there are lies in the content.

**Questions 24 - 26**

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

A **24**\_\_\_\_\_ accused Jonathan Aitken, a former cabinet minister, who was selling and buying with **25**\_\_\_\_\_. Aitken's case collapsed in June 1997, when the defence finally found indisputable evidence about his Paris trip. He was deemed to have his **26**\_\_\_\_\_. They revealed that not only was Aitken's daughter not with him that day, but also that the minister had simply got into his car and drove off, with no vehicle in pursuit.



# **INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM**

## **READING**

### **UNIT 4 阶段复习检测【1】**

## PASSAGE 14

**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**

**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.

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?

**PASSAGE 15****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 14 - 17**

**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. The pictures of rock engravings found in Green Sahara is similar to those in other places.
- 15. Tenere Desert was quite a fertile area in Sahara Desert.
- 16. Hettwer found human remains in the desert by chance.
- 17. Sereno and Garcea have cooperated in some archaeological activities before studying ancient Sahara people.

**Questions 18 - 20**

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

18. What did Sereno and Garcea produce in the initial weeks before digging work?

\_\_\_\_\_

19. What did Sereno send to the research centre?

\_\_\_\_\_

20. How old were the bigger tightly bundled burials having been identified estimated to be?

\_\_\_\_\_

**Questions 21 - 26**

Choose **ONE WORD ONLY** from the passage for each answer.

**A comparative study of two ancient cultures****the Kiffian**

—They seemed to be peaceful and industrious since the researcher did not find 21\_\_\_\_\_ on their heads and forearms.

—Their lifestyle was 22\_\_\_\_\_.

—Through the observation on the huge leg muscles, it could be inferred that their diet had plenty of 23\_\_\_\_\_.

**the Tenerian**

—Stojanowski presumed that the Tenerian preferred herding to 24\_\_\_\_\_.

—But only the bones of individual animals such as 25\_\_\_\_\_ were found.

—Sereno supposed the Tenerian in Gobero lived in a 26\_\_\_\_\_ at that time.

**PASSAGE 16****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.

- 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

**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 - 40

**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

# **INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM**

## **READING**

### **UNIT 5 选择题专项训练**

**PASSAGE 17****The Significant Role of Mother Tongue in Education**

One consequence of population mobility is an increasing diversity within schools. To illustrate, in the city of Toronto in Canada, 58% of kindergarten pupils come from homes where English is not the usual language of communication. Schools in Europe and North America have experienced this diversity for years, and educational policies and practices vary widely between countries and even within countries. Some political parties and groups search for ways to solve the problem of diverse communities and their integration in schools and society. However, they see few positive consequences for the host society and worry that this diversity threatens the identity of the host society. Consequently, they promote unfortunate educational policies that will make the “problem” disappear. If students retain their culture and language, they are viewed as less capable of identifying with the mainstream culture and learning the mainstream language of the society.

The challenge for educators and policy-makers is to shape the evolution of national identity in such a way that the rights of all citizens (including school children) are respected, and the cultural, linguistic, and economic resources of the nation are maximised. To waste the resources of the nation by discouraging children from developing their mother tongues is quite simply unintelligent from the point of view of national self-interest. A first step in providing an appropriate education for culturally and linguistically diverse children is to examine what the existing research says about the role of children’s mother tongues in their educational development.

In fact, the research is very clear. When children continue to develop their abilities in two or more languages throughout their primary school, they gain a deeper understanding of language and how to use it effectively. They have more practice in processing language, especially when they develop literacy in both. More than 150 research studies conducted during the past 35 years strongly support what Goethe, the famous eighteenth-century German philosopher, once said: the person who knows only one language does not truly know that language. Research suggests that bilingual children may also develop more flexibility in their thinking as a result of processing information through two different languages.

The level of development of children’s mother tongue is a strong predictor of their second language development. Children who come to school with a solid foundation in their mother

children develop stronger literacy abilities in the school language. When parents and other caregivers (e.g. grandparents) are able to spend time with their children and tell stories or discuss issues with them in a way that develops their mother tongue, children come to school well-prepared to learn the school language and succeed educationally. Children's knowledge and skills transfer across languages from the mother tongue to the school language. Transfer across languages can be two-way: both languages nurture each other when the educational environment permits children access to both languages.

Some educators and parents are suspicious of mother tongue-based teaching programs because they worry that they take time away from the majority language. For example, in a bilingual program where 50% of the time is spent teaching through children's home language and 50% through the majority language, surely children won't progress as far in the latter? One of the most strongly established findings of educational research, however, is that well-implemented bilingual programs can promote literacy and subject-matter knowledge in a minority language without any negative effects on children's development in the majority language. Within Europe, the Foyer program in Belgium, which develops children's speaking and literacy abilities in three languages (their mother tongue, Dutch and French), most clearly illustrates the benefits of bilingual and trilingual education (see Cummins, 2000).

It is easy to understand how this happens. When children are learning through a minority language, they are learning concepts and intellectual skills too. Pupils who know how to tell the time in their mother tongue understand the concept of telling time. In order to tell time in the majority language, they do not need to re-learn the concept. Similarly, at more advanced stages, there is transfer across languages in other skills such as knowing how to distinguish the main idea from the supporting details of a written passage or story, and distinguishing fact from opinion. Studies of secondary school pupils are providing interesting findings in this area, and it would be worth extending this research.

Many people marvel at how quickly bilingual children seem to "pick up" conversational skills in the majority language at school (although it takes much longer for them to catch up with native speakers in academic language skills). However, educators are often much less aware of how quickly children can lose their ability to use their mother tongue, even in the home context. The extent and rapidity of language loss will vary according to the concentration of families from a particular linguistic group in the neighborhood. Where the mother tongue is used extensively in the community, then language loss among young children will be less. However, where language communities are not concentrated in particular neighborhoods,

children can lose their ability to communicate in their mother tongue within 2-3 years of starting school. They may retain receptive skills in the language but they will use the majority language in speaking with their peers and siblings and in responding to their parents. By the time children become adolescents, the linguistic division between parents and children has become an emotional chasm. Pupils frequently become alienated from the cultures of both home and school with predictable results.

**Questions 27 - 30****27. What point did the writer make in the second paragraph?**

- A Some present studies on children's mother tongues are misleading.
- B A culturally rich education programme benefits some children more than others.
- C Bilingual children can make a valuable contribution to the wealth of a country.
- D The law on mother tongue use at school should be strengthened.

**28. Why does the writer refer to something that Goethe said?**

- A to lend weight to his argument
- B to contradict some research
- C to introduce a new concept
- D to update current thinking

**29. The writer believes that when young children have a firm grasp of their mother tongue**

- A they can teach older family members what they learnt at school.
- B they go on to do much better throughout their time at school.
- C they can read stories about their cultural background.
- D they develop stronger relationships with their family than with their peers.

**30. Why are some people suspicious about mother tongue-based teaching programmes?**

- A They worry that children will be slow to learn to read in either language.
- B They think that children will confuse words in the two languages.
- C They believe that the programmes will make children less interested in their lessons.
- D They fear that the programmes will use up valuable time in the school day.

## Questions 31 - 35

### Bilingual Children

It was often recorded that bilingual children acquire the **31**\_\_\_\_\_ to converse in the majority language remarkable quickly. The fact that the mother tongue can disappear at a similar **32**\_\_\_\_\_ is less well understood. This phenomenon depends, to a certain extent, on the proposition of people with the same linguistic background that have settled in a particular **33**\_\_\_\_\_. If this is limited, children are likely to lose the active use of their mother tongue. And thus no longer employ it even with **34**\_\_\_\_\_, although they may still understand it. It follows that teenager children in these circumstances experience a sense of **35**\_\_\_\_\_ in relation to all aspects of their lives.

<b>A</b> teachers	<b>B</b> school	<b>C</b> dislocation
<b>D</b> rate	<b>E</b> time	<b>F</b> family
<b>G</b> communication	<b>H</b> type	<b>I</b> ability
<b>J</b> area		

## Questions 36 - 40

**YES** if the statement agrees with the views of the writer

**NO** if the statement contradicts the views of the writer

**NOT GIVEN** if it is impossible to say what the writer thinks about this

36. Less than half of the children who attend kindergarten in Toronto have English as their mother tongue.

37. Research proves that learning the host country language at school can have an adverse effect on a child's mother tongue.

38. The Foyer program is accepted by the French education system.

39. Bilingual children are taught to tell the time earlier than monolingual children.

40. Bilingual children can apply reading comprehension strategies acquired in one language when reading in the other.

## PASSAGE 18

**Honey Bees in Trouble***Can native pollinators fill the gap?*

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

But what few accounts acknowledge is that what's at risk is not itself a natural state of affairs. For one thing, in the United States, where CCD was first reported and has had its greatest impacts, honeybees are not a native species. Pollination in modern agriculture isn't alchemy, it's industry. The total number of hives involved in the U.S. pollination industry has been somewhere between 2.5 million and 3 million in recent years. Meanwhile, American farmers began using large quantities of organophosphate insecticides, planted large-scale crop monocultures, and adopted "clean farming" practices that scrubbed native vegetation from field margins and roadsides. These practices killed many native bees outright — they're as vulnerable to insecticides as any agricultural pest — and made the agricultural landscape inhospitable to those that remained. Concern about these practices and their effects on pollinators isn't new, in her 1962 ecological alarm cry *Silent Spring*, Rachel Carson warned of a 'Fruitless Fall' that could result from the disappearance of insect pollinators.

If that 'Fruitless Fall' has not — yet — occurred, it may be largely thanks to the honeybee, which farmers turned to as the ability of wild pollinators to service crops declined. The honeybee has been semi-domesticated since the time of the ancient Egyptians, but it wasn't just familiarity that determined this choice: the bees' biology is in many ways suited to the kind of agricultural system that was emerging. For example, honeybee hives can be closed up and moved out of the way when pesticides are applied to a field. The bees are generalist pollinators, so they can be used to pollinate many different crops. And although they are not the most efficient pollinator of every crop, honeybees have strength in numbers, with 20,000 to 100,000 bees living in a single hive. "Without a doubt, if there was one bee you wanted for agriculture, it would be the honeybee," says Jim Cane, of the U.S. Department of Agriculture. The honeybee, in other words, has become a crucial cog in the modern system of industrial agriculture. That system delivers more food, and more kinds of it, to more places, more cheaply than ever before. But that system is also vulnerable, because making a farm field into



the photosynthetic equivalent of a factory floor, and pollination into a series of continent-long assembly lines, also leaches out some of the resilience characteristic of natural ecosystems.

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

In fact, a few wild bees are already being successfully managed for crop pollination. “The problem is trying to provide native bees in adequate numbers on a reliable basis in a fairly short number of years in order to service the crop,” Jim Cane says. “You’re talking millions of flowers per acre in a two-to three-week time frame, or less, for a lot of crops.” On the other hand, native bees can be much more efficient pollinators of certain crops than honeybees, so you don’t need as many to do the job. For example, about 750 blue orchard bees (*Osmia lignaria*) can pollinate a hectare of apples or almonds, a task that would require roughly 50,000 to 150,000 honeybees. There are bee tinkerers engaged in similar work in many corners of the world. In Brazil, Breno Freitas has found that *Centris tarsata*, the native pollinator of wild cashew, can survive in commercial cashew orchards if growers provide a source of floral oils, such as by interplanting their cashew trees with Caribbean cherry.

In certain places, native bees may already be doing more than they’re getting credit for. Ecologist Rachael Winfree recently led a team that looked at pollination of four summer crops (tomato, watermelon, peppers, and muskmelon) at 29 farms in the region of New Jersey and Pennsylvania. Winfree’s team identified 54 species of wild bees that visited these crops, and found that wild bees were the most important pollinators in the system: even though managed honeybees were present on many of the farms, wild bees were responsible for 62 percent of flower visits in the study. In another study focusing specifically on watermelon, Winfree and her colleagues calculated that native bees alone could provide sufficient pollination at 90 percent of the 23 farms studied. By contrast, honeybees alone could provide sufficient pollination at only 78 percent of farms.

“The region I work in is not typical of the way most food is produced,” Winfree admits. In the Delaware Valley, most farms and farm fields are relatively small, each farmer typically grows a variety of crops, and farms are interspersed with suburbs and other types of land use which

means there are opportunities for homeowners to get involved in bee conservation, too. The landscape is a bee-friendly patchwork that provides a variety of nesting habitat and floral resources distributed among different kinds of crops, weedy field margins, fallow fields, suburban neighborhoods, and semi natural habitat like old woodlots, all at a relatively small scale. In other words, “pollinator-friendly” farming practices would not only aid pollination of agricultural crops, but also serve as a key element in the over all conservation strategy for wild pollinators, and often aid other wild species as well.

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

**Questions 27 - 30**

**YES** if the statement agrees with the claims of the writer

**NO** if the statement contradicts the claims of the writer

**NOT GIVEN** if it is impossible to say what the writer thinks about this

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

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

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

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

**Questions 31 - 35**

**31. The example of the ‘Fruitless Fall’ underlines the writer’s point about**

A needs for using pesticides.

B impacts of losing insect pollinators.

C vulnerabilities of native bees.

D benefits in building more pollination industries.

**32. Why can honeybees adapt to the modern agricultural system?**

A The honeybees can pollinated more crops efficiently.

B The bees are semi-domesticated since ancient times.

C Honeybee hives can be protected from pesticides.

D The ability of wild pollinators using to serve crops declines.

**33. The writer mentions factories and assembly lines to illustrate**

A one drawback of the industrialised agricultural system.

B a low cost in modern agriculture.

C the role of honeybees in pollination.

D what a high yield of industrial agriculture.

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

A honeybees can pollinate various crops.

B there are many types of wild bees as the pollinators.

C wild bees can increase the yield to a higher percentage.

D wild bees work more efficiently as a pollinator than honeybees in certain cases.

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

A the importance of honeybees in pollination

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

C the comparison between the intensive and the rarefied agricultural system

D the reason why farmers can rely on native pollinators

**Questions 36 - 40**

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

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

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

C honeybees can not be bred.

D some agricultural landscapes are favourable in supporting wild bees.

E a large scale of honeybees are needed to pollinate.

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

36. Headlines of colony collapse disorder state that

37. Viewpoints of Freitas manifest that

38. Examples of blue orchard bees have shown that

39. *Centris tarsata* is mentioned to exemplify that

40. One finding of the research in Delaware Valley is that

## PASSAGE 19

**Global Warming in New Zealand**

For many environmentalists, the world seems to be getting warmer. As the nearest country of South Polar Region, New Zealand has maintained an upward trend in its average temperature in the past few years. However, the temperature in New Zealand will go up 4°C in the next century while the polar region will go up more than 6°C. The different pictures of temperature stem from its surrounding ocean which acts like the air conditioner. Thus New Zealand is comparatively fortunate.

Scientifically speaking, this temperature phenomenon in New Zealand originated from what researchers call “SAM” (Southern Annular Mode), which refers to the wind belt that circles the Southern Oceans including New Zealand and Antarctica. Yet recent work has revealed that changes in SAM in New Zealand have resulted in a weakening of moisture during the summer, and more rainfall in other seasons. A bigger problem may turn out to be heavier droughts for agricultural activities because of more water loss from soil, resulting in poorer harvest before winter when the rainfall arrive too late to rescue.

Among all the calamities posed by drought, moisture deficit ranks the first. Moisture deficit is the gap between the water plants need during the growing season and the water the earth can offer. Measures of moisture deficit were at their highest since the 1970s in New Zealand. Meanwhile, ecological analyses clearly show moisture deficit is imposed at different growth stage of crops. If moisture deficit occurs around a crucial growth stage, it will cause about 22% reduction in grain yield as opposed to moisture deficit at vegetative phase.

Global warming is not only affecting agriculture production. When scientists say the country’s snow pack and glaciers are melting at an alarming rate due to global warming, the climate is putting another strain on the local places. For example, when the development of global warming is accompanied by the falling snow line, the local skiing industry comes into a crisis. The snow line may move up as the temperature goes up, and then the snow at the bottom will melt earlier. Fortunately, it is going to be favourable for the local skiing industry to tide over tough periods since the quantities of snowfall in some areas are more likely to increase.

What is the reaction of glacier region? The climate change can be reflected in the glacier region in southern New Zealand or land covered by ice and snow. The reaction of a glacier to

a climatic change involves a complex chain of processes. Over time periods of years to several decades, cumulative changes in mass balance cause volume and thickness changes, which will affect the flow of ice via altered internal deformation and basal sliding. This dynamic reaction finally leads to glacier length changes, the advance or retreat of glacier tongues. Undoubtedly, glacier mass balance is a more direct signal of annual atmospheric conditions.

The latest research result of National Institute of Water and Atmospheric (NIWA) Research shows that glaciers line keeps moving up because of the impacts of global warming. Further losses of ice can be reflected in Mt. Cook Region. By 1996, a 14 km long sector of the glacier had melted down forming a melt lake (Hooker Lake) with a volume. Melting of the glacier front at a rate of 40 m/yr will cause the glacier to retreat at a rather uniform rate. Therefore, the lake will continue to grow until it reaches the glacier bed.

A direct result of the melting glaciers is the change of high tides that serves the main factor for sea level rise. The trend of sea level rise will bring a threat to the groundwater system for its hyper-saline groundwater and then pose a possibility to decrease the agricultural production. Many experts believe that the best way to counter this trend is to give a longer-term view of sea level change in New Zealand. Indeed, the coastal boundaries need to be upgraded and redefined.

There is no doubt that global warming has affected New Zealand in many aspects. The emphasis on the global warming should be based on the joints efforts of local people and experts who conquer the tough period. For instance, farmers are taking a long term, multi-generational approach to adjust the breeds and species according to the temperature. Agriculturists also find ways to tackle the problems that may bring to the soil. In broad terms, going forward, the systemic resilience that's been going on a long time in the ecosystem will continue.

How about animals' reaction? Experts have surprisingly realised that animals have unconventional adaptation to global warming. A study has looked at sea turtles on a few northern beaches in New Zealand and it is very interesting to find that sea turtles can become male of female according to the temperature. Further researches will try to find out how rising temperatures would affect the ratio of sex reversal in their growth. Clearly, the temperature of the nest plays a vital role in the sexes of the baby turtles.

Tackling the problems of global warming is never easy in New Zealand, because records show the slow process of global warming may have a different impact on various regions. For New Zealand, the emission of carbon dioxide only accounts for 0.5% of the world's total, which has met the governmental standard. However, New Zealand's effort counts only a tip of the iceberg. So far, global warming has been a world issue that still hangs in an ambiguous future.

**Questions 27 - 32****27. What is the main idea of the first paragraph?**

- A The temperature in the polar region will increase less than that in New Zealand in the next century.
- B The weather and climate of New Zealand is very important to its people because of its close location to the polar region.
- C The air condition in New Zealand will maintain a high quality because of the ocean.
- D The temperature of New Zealand will increase less than that of other regions in the next 100 years because it is surrounded by sea.

**28. What is one effect of the wind belt that circles the Southern Oceans?**

- A New Zealand will have more moisture in winds in summer.
- B New Zealand needs to face droughts more often in hotter months in a year.
- C Soil water will increase as a result of weakening moisture in the winds.
- D Agricultural production will be reduced as a result of more rainfall in other seasons.

**29. What does "moisture deficit" mean to the grain and crops?**

- A The growing condition will be very tough for crops.
- B The growing season of some plants can hardly be determined.
- C There will be a huge gap between the water plants needed and the water the earth can offer.
- D The soil of grain and crops in New Zealand reached its lowest production since 1970s.

**30. What changes will happen to skiing industry due to the global warming phenomenon?**

- A The skiing station may lower the altitude of skiing.
- B Part of the skiing station needs to move to the north.
- C The snowfall may increase in part of the skiing station.
- D The local skiing station may likely to make a profit because of the snowfall increase.

**31. Cumulative changes over a long period of time in mass balance will lead to**

- A alterations in the volume and thickness of glaciers.
- B faster changes in internal deformation and basal sliding.
- C larger length of glaciers.
- D retreat of glacier tongues as a result of change in annual atmospheric conditions.

**32. Why does the writer mention NIWA in the sixth paragraph?**

- A To use a particular example to explain the effects brought by glacier melting.
- B To emphasize the severance of the further loss of ice in Mt. Cook Region.
- C To alarm the reader of melting speed of glaciers at a uniform rate.
- D To note the lake in the region will disappear when it reach the glacier bed.

**Questions 33 - 35**

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

Research data shows that sea level has a closely relation with the change of climate. The major reason for the increase in sea level is connected with **33** \_\_\_\_\_. The increase in sea level is also said to have a threat to the underground water system, the destruction of which caused by rise of sea level will lead to a high probability of reduction in **34** \_\_\_\_\_. In the long run, New Zealanders may have to improve the **35** \_\_\_\_\_ if they want to diminish the effect change in sea levels.

**Questions 36 - 40**

**YES** if the statement agrees with the claims of the writer

**NO** if the statement contradicts the claims of the writer

**NOT GIVEN** if it is impossible to say what the writer thinks about this

- 36. Farmers are less responsive to climate change than agriculturists.
- 37. Agricultural sector is too conservative and resistant to deal with climate change.
- 38. Turtle is vulnerable to climate change.
- 39. The global warming is going slowly, and it may have different effects on dif-ferent areas in New Zealand.
- 40. New Zealand must cut carbon dioxide emission if they want to solve the problem of global warming.

# **INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM**

## **READING**

### **UNIT 6    匹配题专项训练**



## PASSAGE 20

## Otters

**A** Otters are semiaquatic (or in the case of the sea otter, aquatic) mammals. They are members of the Mustelid family which includes badgers, polecats, martens, weasels, stoats and minks, and have inhabited the earth for the last 30 million years and over the years have undergone subtle changes to the carnivore bodies to exploit the rich aquatic environment. Otters have long thin body and short legs—ideal for pushing dense undergrowth or hunting in tunnels. An adult male may be up to 4 feet long and 30 pounds. Females are smaller, around 16 pounds typically. The Eurasian otter’s nose is about the smallest among the otter species and has a characteristic shape described as a shallow “W”. An otter’s tail (or rudder, or stern) is stout at the base and tapers towards the tip where it flattens. This forms part of the propulsion unit when swimming fast under water. Otter fur consists of two types of hair: stout guard hairs which form a waterproof outer covering, and underfur which is dense and fine, equivalent to an otter’s thermal underwear. The fur must be kept in good condition by grooming. Sea water reduces the waterproofing and insulating qualities of otter fur when salt water gets in the fur. This is why freshwater pools are important to otters living on the coast. After swimming, they wash the salts off in the pools and then squirm on the ground to rub dry against vegetation.

**B** Scent is used for hunting on land, for communication and for detecting danger. Otterine sense of smell is likely to be similar in sensitivity to dogs. Otters have small eyes and are probably short-sighted on land. But they do have the ability to modify the shape of the lens in the eye to make it more spherical, and hence overcome the refraction of water. In clear water and good light, otters can hunt fish by sight. The otter’s eyes and nostrils are placed high on its head so that it can see and breathe even when the rest of the body is submerged. The long whiskers growing around the muzzle are used to detect the presence of fish. They detect regular vibrations caused by the beat of the fish’s tail as it swims away. This allows otters to hunt even in very murky water. Underwater, the otter holds its legs against the body, except for steering, and the hind end of the body is flexed in a series of vertical undulations. River otters have webbing which extends for much of the length of each digit, though not to the very end. Giant otters and sea otters have even more prominent webs, while the Asian short-clawed otter has no webbing—they hunt for shrimps in ditches and paddy fields so they don’t need the swimming speed. Otter ears are protected by valves which close them against water pressure.

**C** A number of constraints and preferences limit suitable habitats for otters. Water is a must and the rivers must be large enough to support a healthy population of fish. Being such shy and wary creatures, they will prefer territories where man's activities do not impinge greatly. Of course, there must also be no other otter already in residence—this has only become significant again recently as populations start to recover. A typical range for a male river otter might be 25km of river, a female's range less than half this. However, the productivity of the river affects this hugely and one study found male ranges between 12 and 80km. Coastal otters have a much more abundant food supply and ranges for males and females may be just a few kilometers of coastline. Because male ranges are usually larger, a male otter may find his range overlaps with two or three females. Otters will eat anything that they can get hold of—there are records of sparrows and snakes and slugs being gobbled. Apart from fish the most common prey are crayfish, crabs and water birds. Small mammals are occasionally taken, most commonly rabbits but sometimes even moles.

**D** Eurasian otters will breed any time where food is readily available. In places where condition is more severe, Sweden for example where the lakes are frozen for much of winter, cubs are born in Spring. This ensures that they are well grown before severe weather returns. In the Shetlands, cubs are born in summer when fish is more abundant. Though otters can breed every year, some do not. Again, this depends on food availability. Other factors such as food range and quality of the female may have an effect. Gestation for Eurasian otter is 63 days, with the exception of North American river otter whose embryos may undergo delayed implantation.

**E** Otters normally give birth in more secure dens to avoid disturbances. Nests are lined with bedding (reeds, waterside plants, grass) to keep the cubs warm while mummy is away feeding. Litter Size varies between 1 and 5 (2 or 3 being the most common). For some unknown reason, coastal otters tend to produce smaller litters. At five weeks they open their eyes—a tiny cub of 700g. At seven weeks they're weaned onto solid food. At ten weeks they leave the nest, blinking into daylight for the first time. After three months they finally meet the water and learn to swim. After eight months they are hunting, though the mother still provides a lot of food herself. Finally, after nine months she can chase them all away with a clear conscience, and relax—until the next fella shows up.

**F** The plight of the British otter was recognised in the early 60s, but it wasn't until the late 70s that the chief cause was discovered. Pesticides, such as dieldrin and aldrin, were first used in 1955 in agriculture and other industries—these chemicals are very persistent and had already

been recognised as the cause of huge declines in the population of peregrine falcons, sparrowhawks and other predators. The pesticides entered the river systems and the food chain—micro-organisms, fish and finally otters, with every step increasing the concentration of the chemicals. From 1962 the chemicals were phased out, but while some species recovered quickly, otter numbers did not—and continued to fall into the 80s. This was probably due mainly to habitat destruction and road deaths. Acting on populations fragmented by the sudden decimation in the 50s and 60s, the loss of just a handful of otters in one area can make an entire population unviable and spell the end.

**G** Otter numbers are recovering all around Britain—populations are growing again in the few areas where they had remained and have expanded from those areas into the rest of the country. This is almost entirely due to law and conservation efforts, slowing down and reversing the destruction of suitable otter habitat and reintroductions from captive breeding programs. Releasing captive-bred otters is seen by many as a last resort. The argument runs that where there is no suitable habitat for them they will not survive after release and where there is suitable habitat, natural populations should be able to expand into the area. However, reintroducing animals into a fragmented and fragile population may add just enough impetus for it to stabilise and expand, rather than die out. This is what the Otter Trust accomplished in Norfolk, where the otter population may have been as low as twenty animals at the beginning of the 1980s. The Otter Trust has now finished its captive breeding program entirely. Great news because it means it is no longer needed.

### **Questions 1 - 9**

Reading Passage 1 has seven paragraphs, A-G. Which paragraph contains the following information?

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

1. A description of how otters regulate vision underwater
2. The fit-for-purpose characteristics of otter's body shape
3. A reference to an underdeveloped sense
4. An explanation of why agriculture failed in otter conservation efforts
5. A description of some of the otter's social characteristics
6. A description of how baby otters grow
7. The conflicted opinions on how to preserve
8. A reference to a legislative act
9. An explanation of how otters compensate for heat loss

**Questions 10 - 13**

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

- 10 What affects the outer fur of otters?
- 11 What skill is not necessary for Asian short-clawed otters?
- 12 Which type of otters has the shortest range?
- 13 Which type of animals do otters hunt occasionally?

## PASSAGE 21

**Keep the Water Away**

**A** Last winter's floods on the rivers of central Europe were among the worst since the Middle Ages, and as winter storms return, the spectre of floods is returning too. Just weeks ago, the river Rhône in south-east France burst its banks, driving 15,000 people from their homes, and worse could be on the way. Traditionally, river engineers have gone for Plan A: get rid of the water fast, draining it off the land and down to the sea in tall-sided rivers re-engineered as high-performance drains. But however big they dug city drains, however wide and straight they made the rivers, and however high they built the banks, the floods kept coming back to taunt them, from the Mississippi to the Danube. And when the floods came, they seemed to be worse than ever. No wonder engineers are turning to Plan B: sap the water's destructive strength by dispersing it into fields, forgotten lakes, flood plains and aquifers.

**B** Back in the days when rivers took a more tortuous path to the sea, flood waters lost impetus and volume while meandering across flood plains and idling through wetlands and inland deltas. But today the water tends to have an unimpeded journey to the sea. And this means that when it rains in the uplands, the water comes down all at once. Worse, whenever we close off more flood plains, the river's flow farther downstream becomes more violent and uncontrollable. Dykes are only as good as their weakest link—and the water will unerringly find it. By trying to turn the complex hydrology of rivers into the simple mechanics of a water pipe, engineers have often created danger where they promised safety, and intensified the floods they meant to end. Take the Rhine, Europe's most engineered river. For two centuries, German engineers have erased its backwaters and cut it off from its flood plain.

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

**D** The European Union is trying to improve rain forecasts and more accurately model how intense rains swell rivers. That may help cities prepare, but it won't stop the floods. To do that,

say hydrologists, you need a new approach to engineering not just rivers, but the whole landscape. The UK's Environment Agency—which has been granted an extra £150 million a year to spend in the wake of floods in 2000 that cost the country £1 billion—puts it like this: “The focus is now on working with the forces of nature. Towering concrete walls are out, and new wetlands are in.” To help keep London's feet dry, the agency is breaking the Thames's banks upstream and reflooding 10 square kilometres of ancient flood plain at Otmoor outside Oxford. Nearer to London it has spent £100 million creating new wetlands and a relief channel across 16 kilo-metres of flood plain to protect the town of Maidenhead, as well as the ancient playing fields of Eton College. And near the south coast, the agency is digging out channels to reconnect old meanders on the river Cuckmere in East Sussex that were cut off by flood banks 150 years ago.

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

**F** “Rivers have to be allowed to take more space. They have to be turned from flood-chutes into flood-foilers,” says Nienhuis. And the Dutch, for whom preventing floods is a matter of survival, have gone furthest. A nation built largely on drained marshes and seabed had the fright of its life in 1993 when the Rhine almost overwhelmed it. The same happened again in 1995, when a quarter of a million people were evacuated from the Netherlands. But a new breed of “soft engineers” wants our cities to become porous, and Berlin is their shining example. Since reunification, the city's massive redevelopment has been governed by tough new rules to prevent its drains becoming overloaded after heavy rains. Harald Kraft, an architect working in the city, says: “We now see rainwater as a resource to be kept rather than got rid of at great cost.” A good illustration is the giant Potsdamer Platz, a huge new commercial redevelopment by Daimler Chrysler in the heart of the city.

**G** Los Angeles has spent billions of dollars digging huge drains and concreting river beds to carry away the water from occasional intense storms. The latest plan is to spend a cool \$280 million raising the concrete walls on the Los Angeles river by another 2 metres. Yet many communities still flood regularly. Meanwhile this desert city is shipping in water from hundreds

of kilometres away in northern California and from the Colorado river in Arizona to fill its taps and swimming pools, and irrigate its green spaces. It all sounds like bad planning. “In LA we receive half the water we need in rainfall, and we throw it away. Then we spend hundreds of millions to import water,” says Andy Lipkis, an LA environmentalist, along with citizen groups like Friends of the Los Angeles River and Unpaved LA, want to beat the urban flood hazard and fill the taps by holding onto the city’s flood water. And it’s not just a pipe dream. The authorities this year launched a \$100 million scheme to road-test the porous city in one flood-hit community in Sun Valley. The plan is to catch the rain that falls on thousands of driveways, parking lots and rooftops in the valley. Trees will soak up water from parking lots. Homes and public buildings will capture roof water to irrigate gardens and parks. And road drains will empty into old gravel pits and other leaky places that should recharge the city’s underground water reserves. Result: less flooding and more water for the city. Plan B says every city should be porous, every river should have room to flood naturally and every coastline should be left to build its own defences. It sounds expensive and utopian, until you realise how much we spend trying to drain cities and protect our watery margins—and how bad we are at it.

**Questions 14 - 19**

Reading Passage 2 has seven paragraphs, A-G. Which paragraph contains the following information?

- 14. a new approach carried out in the UK
- 15. the reason why twisty path and dykes failed
- 16. illustration of an alternative plan in LA which seems much unrealistic
- 17. traditional ways of tackling flood
- 18. efforts made in Netherlands and Germany
- 19. one project on a river that benefits three nations

**Questions 20 - 23 T/F/NG 判断题**

- 20. In the ancient times, the people in Europe made their efforts to improve the river banks, so the flood was becoming less severe than before.
- 21. Flood makes river shorter than it used to be, which means faster speed and more damage to the constructions on flood plain.
- 22. The new approach in the UK is better than that in Austria.
- 23. At least 300,000 people left from Netherlands in 1995.

**Questions 24 - 26**

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

24. UK's Environment Agency carried out one innovative approach: a wetland is generated not far from the city of \_\_\_\_\_ to protect it from flooding.
25. \_\_\_\_\_ suggested that cities should be porous, and Berlin set a good example.
26. Another city devastated by heavy storms casually is \_\_\_\_\_, though government pours billions of dollars each year in order to solve the problem.



## PASSAGE 22

**The Connection Between Culture and Thought**

**A** The world's population has surpassed 7 billion and continues to grow. Across the globe, humans have many differences. These differences can be influenced by factors such as geography, climate, politics, nationality, and many more. Culture is one such aspect that can change the way people behave.

**B** Your culture may influence your clothing, your language, and many aspects of your life. But is culture influential enough to change the way an individual thinks? It has long been believed that people from different cultures would think differently. For example, a young boy from a farm would talk about cows while a boy from New York will talk about cars. If two young children from different countries are asked about their thoughts about a painting, they would answer differently because of their cultural backgrounds.

**C** In recent years, there has been new research that changed this long-held belief; However, this new research is not the first to explore the idea that culture can change the way we think. Earlier research has provided valuable insight to the question. One of the earliest research projects was carried out in the Soviet Union. This project was designed to find out whether culture would affect people's way of thought processing. The researchers focused on how living environment and nationality might influence how people think. The experiment led by Bessett aimed to question such awareness of cognitive psychology. Bessett conducted several versions of the experiment to test different cognitive processes.

**D** One experiment led by Bessett and Masuku showed an animated video picturing a big fish swimming among smaller fish and other sea creatures. Subjects were asked to describe the scene. The Japanese participants tended to focus on the aquatic background, such as the plants and colour of the water, as well as the relationship between the big and small fish. American participants tended to focus on individual fishes, mainly the larger, more unique looking fish. The experiment suggested that members of Eastern cultures focus more on the overall picture, while members of Western culture focus more on the individuals.

**E** In another experiment performed by Bessett and Choi, the subjects were presented with some very convincing evidence for a position. Both the Korean and the American showed strong support. And after they were given some evidence opposing the position, the Korean

started to modified or decreased their support. However, the American began to give more support to the former argument. This project suggested that in Korean culture, support for arguments is based on context. Ideas and conclusions are changeable and flexible, so an individual may be more willing to change his or her mind. For Americans, they were less willing to change their original conclusion.

**F** Bessett and Ara devised an experiment to test the thought processing of both oriental and occidental worlds. Test subject was given an argument “All animals with furs hibernate. Rabbit has fur. Therefore, rabbit hibernate”. People from the eastern world questioned the argument as not being logical, because in their knowledge some furry animals just don’t hibernate. But the American think the statement is right. They assume the logic deduction is based on a correct argument, thus the conclusion is right since the logic is right.

**G** From these early experiments in the Soviet Union, one might conclude that our original premise—that culture can impact the way we think—was still correct. However, recent research criticises this view, as well as Bessett’s early experiments. Though these experiments changed the original belief on thought processing, how much does it result from all factors needs further discussion. Fischer thinks Bessett’s experiments provide valuable information because his research only provides qualitative descriptions, not results from controlled environment. Chang partly agrees with him, because there are some social factors that might influence the results.

**H** Another criticism of Bessett’s experiments is that culture was studied as a sub-factor of nationality. The experiments assumed that culture would be the same among all members of a nationality. For example, every American that participated in the experiments could be assumed to have the same culture. In reality, culture is much more complicated than nationality. These early experiments did not control for other factors, such as socioeconomic status, education, ethnicity, and regional differences in culture. All of these factors could have a big effect on the individual’s response.

**I** A third criticism of Bessett’s experiment is that the content itself should have been more abstract, such as a puzzle or an IQ test. With objective content, such as nature and animals, people from different countries of the world might have different pre-conceived ideas about these animals. Prior knowledge based on geographic location would further complicate the results. A test that is more abstract, or more quantitative, would provide a more controlled study of how cognitive processing works for different groups of people.

**J** The research on culture's effect on cognitive processing still goes on today, and while some criticisms exist of Bessett's early studies, the projects still provide valuable insight. It is important for future research projects to control carefully for the variables, such as culture. Something like culture is complex and difficult to define. It can also be influenced by many other variables, such as geography or education styles. When studying a variable like culture, it is critical that the researcher create a clear definition for what is—and what is not—considered culture.

**K** Another important aspect of modern research is the ethical impact of the research. A researcher must consider carefully whether the results of the research will negatively impact any of the groups involved. In an increasingly globalised job economy, generalisations made about nationalities can be harmful to prospective employees. This information could also impact the way tests and university admissions standards are designed, which would potentially favor one group or create a disadvantage for another. When conducting any research about culture and nationality, researchers should consider all possible effects, positive or negative, that their conclusions may have when published for the world to see.

### **Questions 1 - 5**

Which paragraph contains the following information?

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

1. All people have the same reaction to a certain point of view.
2. Qualitative descriptions are valuable in exploring thought processing.
3. Different cultures will affect the description of the same scene.
4. We thought of young people as widely different at different geographical locations.
5. Eastern people are less likely to stick to their argument.

**Questions 6 - 9**

Look at the following statements (Questions 6-9) and the list of researchers below.

Match each statement with the correct researcher, A-C.

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

A Bessett & Masuku  
B Bessett & Choi  
C Bessett & Ara

- 6. Geographical location affects people's position on certain arguments.
- 7. Animated images reveal different process strategies.
- 8. Eastern people challenge a deduction because they knew it is not true.
- 9. Eastern people find more difficulty when asked to identify the same object.

**Questions 10 - 13**

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

- 10. Researchers in the Soviet Union wanted to find out how \_\_\_\_\_ and nationality will control the way people think.
- 11. Bessett and Ara's experiment shows, for Americans, so long as the logic deduction is based on a correct argument, the \_\_\_\_\_ should be right.
- 12. Fischer thinks Bessett's research is quite valuable because it is conducted in a \_\_\_\_\_ way rather than in controlled environment.
- 13. Future researchers on culture's effect on cognitive processing should start with a \_\_\_\_\_ of culture as a variable.

## PASSAGE 23

**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 influence on the ice industry. Also, he improved the processing techniques for storing, transporting and distributing ice with less waste.

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

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

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

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

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

- |        |
|--------|
| A 1550 |
| B 1799 |
| C 1803 |
| D 1840 |
| E 1949 |
| F 1973 |

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.

**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.

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.

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

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



**PASSAGE 24****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.

- 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
- 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 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 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.

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

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.

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

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

## PASSAGE 25

**Implication of False Belief Experiments**

A considerable amount of research since the mid-1980s has been concerned with what has been termed children's theory of mind. This involves children's ability to understand that people can have different beliefs and representations of the world—a capacity that is shown by four years of age. Furthermore, this ability appears to be absent in children with autism. The ability to work out what another person is thinking is clearly an important aspect of both cognitive and social development. Furthermore, one important explanation for autism is that children suffering from this condition do not have a theory of mind (TOM). Consequently, the development of children's TOM has attracted considerable attention.

Wimmer and Perner devised a "false belief task" to address this question. They used some toys to act out the following story. Maxi left some chocolate in a blue cupboard before he went out. When he was away his mother moved the chocolate to a green cupboard. Children were asked to predict where Maxi will look for his chocolate when he returns. Most children under four years gave the incorrect answer, that Maxi will look in the green cupboard. Those over four years tended to give the correct answer, that Maxi will look in the blue cupboard. The incorrect answers indicated that the younger children did not understand that Maxi's beliefs and representations no longer matched the actual state of the world, and they failed to appreciate that Maxi will act on the basis of his beliefs rather than the way that the world is actually organised.

A simpler version of the Maxi task was devised by Baron-Cohen to take account of criticisms that younger children may have been affected by the complexity and too much information of the story in the task described above. For example, the child is shown two dolls, Sally and Anne, who have a basket and box, respectively. Sally also has a marble, which she places in her basket, and then leaves to take a walk. While she is out of room, Anne takes the marble from the basket, eventually putting it in the box. Sally returns, and the child is then asked where Sally will look for the marble. The child passes the task if she answers that Sally will look in the basket, where she put the marble; the child fails the task if she answers that Sally will look in the box, where the child knows the marble is hidden even though Sally cannot know, since she did not see it hidden there. In order to pass the task, the child must be able to understand that another's mental representation of the situation is different from her own, and the child must be able to predict behaviour based on that understanding. The results of

research using false-belief tasks have been fairly consistent: most normally-developing children are unable to pass the tasks until around age four.

Leslie argues that, before 18 months, children treat the world in a literal way and rarely demonstrate pretence. He also argues that it is necessary for the cognitive system to distinguish between what is pretend and what is real. If children were not able to do this, they would not be able to distinguish between imagination and what is real. Leslie suggests that this pretend play becomes possible because of the presence of a de-coupler that copies primary representations to secondary representations. For example, children, when pretending a banana is a telephone, would make a secondary representation of a banana. They would manipulate this representation and they would use their stored knowledge of “telephone” to build on this pretence.

There is also evidence that social processes play a part in the development of TOM. Meins and her colleagues have found that what they term mind-mindedness in maternal speech to six-month-old infants is related to both security of attachment and to TOM abilities. Mind-mindedness involves speech that discusses infants’ feelings and explains their behaviour in terms of mental states (eg “you’re feeling hungry”).

Lewis investigated older children living in extended families in Crete and Cyprus. They found that children who socially interact with more adults, who have more friends, and who have more older siblings tend to pass TOM tasks at a slightly earlier age than other children. Furthermore, because young children are more likely to talk about their thoughts and feelings with peers than with their mothers, peer interaction may provide a special impetus to the development of a TOM. A similar point has been made by Dunn, who argues that peer interaction is more likely to contain pretend play and that it is likely to be more challenging because other children, unlike adults, do not make large adaptations to the communicative needs of other children.

In addition, there has been concern that some aspects of the TOM approach underestimate children’s understanding of other people. After all, infants will point to objects apparently in an effort to change a person’s direction of gaze and interest; they can interact quite effectively with other people; they will express their ideas in opposition to the wishes of others; and they will show empathy for the feelings of others. All these suggest that they have some level of understanding that their own thoughts are different from those in another person’s mind. Evidence to support this position comes from a variety of sources. When a card with a different

picture on each side is shown to a child and an adult sitting opposite her, the three-year-old understands that she see a different picture to that seen by the adult.

Schatz studied the spontaneous speech of three-year-olds and found that these children used mental terms, and used them in circumstances where there was a contrast between, for example, not being sure where an object was located and finding it or between pretending and reality. Thus the social abilities of children indicate that they are aware of the difference between mental states and external reality at ages younger than four.

A different explanation has been put forward by Harris. He proposed that children use “simulation”. This involves putting yourself in the other person’s position, and then trying to predict what the other person would do. Thus success on false belief tasks can be explained by children trying to imagine what they would do if they were a character in the stories, rather than children being able to appreciate the beliefs of other people. Such thinking about situations that do not exist involves what is termed counterfactual reasoning.

#### **Questions 14 - 20**

- |                     |
|---------------------|
| A Baron-Cohen       |
| B Meins             |
| C Wimmer and Perner |
| D Lewis             |
| E Dunn              |
| F Schatz            |
| G Harris            |

- 14. gave an alternative explanation that children may not be understanding others’ beliefs
- 15. found that children under certain age can tell difference between reality and mentality
- 16. conducted a well-known experiment and drew conclusion that young children were unable to comprehend the real state of the world
- 17. found that children who get along with adults often comparatively got through the test more easily
- 18. revised an easier experiment to rule out the possibility that children might be influenced by sophisticated reasoning
- 19. related social factors such as mother-child communication to capability act in TOM
- 20. explained children are less likely to tell something interactive to their mother than to their friends

**Questions 21 - 26**

Choose **ONE WORD ONLY** from the passage for each answer.

Write your answers in boxes 21-26 on your answer sheet.

In 1980s, research studies were designed to test the subject called Theory of Mind that if children have the ability to represent the reality. First experiments were carried out on this subject on a boy. And questions had been made on where the boy can find the location of the 21 \_\_\_\_\_. But it was accused that it had excessive 22 \_\_\_\_\_. So second modified experiment was conducted involving two dolls, and most children passed the test at the age of 23 \_\_\_\_\_. Then Lewis and Dunn researched 24 \_\_\_\_\_ children in a certain place, and found children who have more interaction such as more conversation with 25 \_\_\_\_\_ actually have better performance in the test, and peer interaction is 26 \_\_\_\_\_ because of consisting pretending elements.



# **INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM**

## **READING**

### **UNIT 7 阶段复习检测【2】**

## PASSAGE 26

**Renewable Energy***An insight into the progress in renewable energy research*

Renewable energy, also known as alternative energy, can be gained from such non-fossil sources as wind, sun and wave. The overwhelming majority of the world's energy supply is still derived from fossil fuels now, say coal and natural gas, which are scarce resources. But according to a new report from International Renewable Energy Agency (IRENA), the costs of generating electricity from onshore wind have fallen by around 25% since 2010 while the costs of solar photovoltaic electricity by 70%. The report also indicates that all forms of alternative energy should be competitive in price with fossil fuels by 2020. In Australia, some modern technologies are aiming to be the first to push coal from its position as the country's main source of electricity.

Currently, the front-runner in renewable energy is wind technology, which started to expand in the early 21st century. Peter Bergin, from Australian Hydro, one of Australia's leading wind energy companies, points out there have been no remarkable changes in windmill design for many years. Still, the cumulative effects of numerous small improvements have made a difference to the costs. 'We're reaping the benefits of 30 years of research in Europe, without having to make the same mistakes that they did,' says Mr. Bergin.

Electricity generated from coal is at around 4 cents per kilowatt-hour, but the environmental costs are not incorporated in the price. 'Australia has the second cheapest electricity in the world, which makes it difficult for alternative energy to compete,' says Richard Hunter of the Australian Eco-generation Association (AEA). Nevertheless, the production costs of a kilowatt-hour of wind power have dramatically decreased during the last 20 years, according to the AEA's report.

Australian Hydro possesses dozens of wind monitoring stations across Australia as part of its aim to become Australia's pre-eminent renewable energy company. Despite all these developments, wind power remains one of the few alternative energy sources where Australia is nowhere near the global cutting edge, mostly just replicating European designs.

In spite of the leading role of wind in Australia, other technologies capable of providing more reliable power have more potential in the future. In several cases, Australia is at the forefront of global research in the area. One of such developments uses hot, dry rocks. In the deep

layers beneath South Australia, radiation from elements contained in the granite heats the rocks. And the temperatures in some locations are raised by layers of insulating sedimentation to 250 degrees centigrade. An Australian firm, Geo Energy, is proposing to pump water 3.5 kilometres into the earth, where it will travel through tiny fissures in the granite, heating up as it goes, until it escapes as steam through another drilled hole.

No greenhouse gas is emitted, but the system needs some additional features if it is not going to have any detrimental effects on the environment. Dr. Prue Chopra, a geophysicist at the Australian National University and one of the founders of Geo Energy, notes that the steam will bring with it the radon gas, along through a heat exchanger and then sent back underground for another cycle. Hot, dry rocks are not a renewable source of energy in technique. However, the abundance of this resource in Australia could satisfy the entire country's needs for thousands of years at the current rate of consumption.

Two other proposals for very different ways to exploit sun and wave energy have also been put forward recently. Progress continues with Australian company Enviro Power's plan for Australia's first solar chimney near Mildura in Victoria. This scheme makes it possible for a tall tower to draw hot air from a greenhouse built to cover the surrounding 5 km<sup>2</sup>. As the air rises, it will drive a turbine to produce electricity. Three very old technologies are applied to the tower – the chimney, the turbine and the greenhouse – to produce something quite new. The very reliance on proven engineering principles has led Enviro Power's CEO, Richard Davies, to state: 'There is no doubt this technology will work, none at all.'

This year, Enviro Power has recognised that the sunlight collection in the Mildura district requires a substantially larger collecting area than was previously thought. However, spokesperson Kay Firth says that a new place closer to Mildura will enable Enviro Power to balance the increased costs with extra revenue. In addition to saving the transmission costs, the new site will mean the increased revenue from tourism and the use of power for telecommunications. We'll also be able to use the outer 500 m<sup>2</sup> for agribusiness since the wind speed closer to the tower will be too high for farming.

Another Australian company, WaveTech, is achieving success by harvesting energy in waves, which has opened up a new prospect for alternative energy production. WaveTech's invention uses a curved surface to push waves into a chamber, where the flowing water column pushes air back and forth through a turbine. WaveTech was created when Dr. Tim Devine offered the idea to the world leader in wave generator manufacturers, who surprisingly rejected it. Dr. Devine responded by establishing WaveTech and making a series of other innovations to

generator design. WaveTech claims that, at appropriate sites, the costs of electricity produced with their technology should be below 4 cents per kilowatt-hour.

The diversity of forms of greenhouse-friendly energy under development in Australia is noteworthy. However, support on a national level is disappointing. According to Richard Hunter of the AEA, 'Australia has huge potential for wind, sun and wave technology. We should really be on the front rank, but the reality is we are a long way behind.'

### Questions 1 - 7

**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. Variations in windmill design have had a big impact on the environment.
2. In Australia, alternative energy is less expensive than conventional energy.
3. Geo Energy needs to adapt its system to make it less harmful to the environment.
4. Hot, dry rocks could provide enough power for the whole of Australia.
5. Enviro Power's new facility will keep tourists away.
6. WaveTech was established when its founder was turned down by another company.
7. According to the AEA, Australia is leading the world in developing renewable energy.

### Questions 8 - 13

Look at the following statements (Questions 8–13) and the list of companies below.

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

#### List of Companies

- A Australian Hydro
- B Geo Energy
- C Enviro Power
- D WaveTech

8. During the process, harmful substances are prevented from escaping.
9. Water is used to force air through a special device.
10. Techniques used by other countries are being copied.
11. The system can provide services other than energy production.
12. It is planning to force water deep under the ground.
13. The original estimate for part of the project needs to be revised.

**PASSAGE 27****The Impact of Environment on Children**

As far as a child's growth is concerned, it would be out of the question to identify each and every influence that determines who a child becomes. Our concern is with some of the most critical factors such as genetic features, experiences, friends, family relationships and schools to help us decipher the influences that contribute to a child's development.

These influences have often been thought of as being analogous to building blocks. While most people tend to have the same basic building blocks, these components can be put together in an infinite number of ways. How much of who you are today is ascribed to your genetic inheritance, and how much is a result of your experiences of a lifetime? In philosophy, psychology and education, the issue of nature versus nurture has been debated for centuries. Generally, the given rate of influence to children is 40% to 50%, and it may refer to all of the siblings of a family. Then are we shaped by our genetic background or the environment? Today, the argument arrives at a reasonable conclusion that both genes and the environment play important roles in determining a child's growth. A child's personality may have natural inclinations, but external ingredients such as education can affect how he behaves.

From the earliest moments of life, the interaction of heredity and the outside world has started to define who children are and who they will become. While the environment has few influences on biological processes related to genes and proteins, it does affect whether children will express the genetic directions. The dynamic relationship of nature and nurture is persistent and lifelong instead of occurring occasionally. So how exactly do different types of environments, shared and non-shared, affect children's development?

Shared environments, also known as common environments, refer to environmental elements that are making siblings in a family more similar to one another. Specifically, shared parenting styles, shared peer groups, shared socio-economic status and so on are all environmental influences that would be shared by children within any specific family. Actually, strong evidence for shared environments' effects on individuals' behaviours has not yet been detected, particularly those measured in adults. One possible reason discussed is that shared environmental effects play a significant role in children and adolescents, but these effects during that period would be decreased in the future life span. Advancement in modern behaviour genetic methods has made it possible to recognise the significance of shared environments and distinguish familial and non-familial sources of shared environmental

features. It may be concerned with all siblings in a family, but the influence rate accounts for less than 10%.

It was not until a century ago, with the advent of quantitative genetic study, that the importance of non-shared environmental influences became apparent. Quantitative genetic methods, such as studies regarding twins and adoption, were to clarify nature and nurture in order to interpret family similarity. There are indications that, for almost all complex phenotypes, the key to the question of the origin of family resemblance is nature – things run in families mainly for genetic reasons. Nevertheless, the valuable evidence reflecting the importance of environmental influences comes from the same quantitative genetic research, because influences merely from genes cannot explain all of the variances for complex phenotypes, and other variances have to be attributed to the environmental influences. Non-shared environments may involve part of siblings of a family, and the rate of influence to children takes up 40% to 50%.

However, it took many decades for the full implication of these findings to be found. If genetics can explain the similarities between siblings reared in the same family, the importance of environment lies in the fact that salient environmental stimuli can make siblings different from each other. In other words, the environment is not shared by children growing up in the same family but is 'non-shared'. This meaning about non-shared environmental influences was underestimated because the field's attention was then firmly on the nature-nurture debate. In reality, children are not spared from environmental influences and are even more susceptible to such influences. The term 'non-shared environments' is the shorthand for a component of phenotypic variance, which refers to 'effects' rather than 'events'. Several recent studies have suggested that the impact from parents can be easily interrupted by that from children of the same age. They also show that the variation of knowledge that children gain from other cultures is increasing. A number of interests between, whatever, fathers and mothers or parents and their children are conflicting.

Because siblings living in the same home share some of the potential genetic and environmental factors that influence their behaviours, it is difficult to tease apart whether genetic or non-genetic elements are responsible for differentiating children's behaviours. Sometimes, it is obvious. Turkheimer and Waldron (2000) have noted that non-shared environmental influences may not be systematic but instead may be distinctive and in ways that cannot be ascertained. Thus, it is challenging to work out the effectiveness of quasi-

experimental behavioural genetic designs to identify systematic non-shared environmental mechanisms sectionally and longitudinally, which could motive the current study.

### Questions 14 - 18

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

The Type of Impact on Children	The Range of People Involved	The Rate of Influence
14. _____ factors from parents and family	all of the siblings	40%–50%
shared environments	15. _____	below 16. _____
17. _____	part of siblings	18. _____ – 50%

### Questions 19 - 21

Complete the summary below.

Choose **ONE WORD ONLY** from the passage for each answer.

Research in recent years has illuminated that the impact from parents will frequently be 19. \_\_\_\_\_ by the peer pressure.

It indicates the 20. \_\_\_\_\_ of knowledge that children learn from other cultures goes on and on. Meanwhile, the study has also observed quantities of competing 21. \_\_\_\_\_ between parents and children or even parents themselves.

**Questions 22 - 25**

Do the following statements agree with the claims of the writer in Reading Passage 2?

**TRUE** if the statement agrees with the claims of the writer

**FALSE** if the statement contradicts the claims of the writer

**NOT GIVEN** if it is impossible to say what the writer thinks about this

22. The more children there are in a family, the more likely they will be affected by the environment.

23. Methods based on twin studies still meet unexpected differences that cannot be ascribed to purely genetic explanation.

24. The non-shared environmental influences were paid great attention by researchers.

25. Children prefer to speak the language of their peers than their parents.

**Question 26**

**26. According to the passage, which statement is true of the effects of non-shared environments on children?**

A The influence of children of the same age is more important than that of parents.

B How non-shared environments will affect children has not been adequately demonstrated.

C Children are not easily influenced by non-shared environments.

D Differences in children's behaviours are more likely to be caused by non-shared environments.



## PASSAGE 28

**What Are Dreams?**

**A** Many centuries ago, dreams were seen as what the gods conveyed to human beings, and in many cultures today, they are still regarded as prophecies. In ancient Greece, sick people slept at the temples of Asclepius, the god of medicine, in order to receive dreams that would heal them. Modern dream science really began at the end of the 19th century with Sigmund Freud, who theorised that dreams were the expression of unconscious desires often stemming from childhood. The Freudian model of psychoanalysis prevailed until the new research into the chemistry of the brain emerged in the 1970s, which illustrated that psychological problems could result from biological or chemical factors, as well as environmental ones. That is to say, we were ill not just because of what our mothers did (or didn't do), but because of some imbalance that could be medicated.

**B** Another dream theory, developing in the early 1950s and ranking the foremost study in dream science after Freud, discovered a phase of sleep with the characteristics of intense brain activity and rapid eye movement (REM). People who wake up during REM sleep can narrate a vivid dream story, leading the researchers to propose that most dreaming occurs during the REM stage. By the electroencephalograph (EEG), similarities between brain activity during REM and that during wakefulness were shown. So the researchers recognised that much more was underway at night than anyone had suspected. But what, exactly?

**C** Scientists still don't know for sure, although they have lots of theories. There are some scientists like Harvard's Allan Hobson believing that dreams are essentially random. In the 1970s, Hobson and his colleague Robert McCarley created a new term, 'activation-synthesis hypothesis', which explains how dreams are formed by nerve signals released during REM sleep from the pons, a small area at the base of the brain. These signals, the researchers stressed, will activate the images that we call dreams. Such a description has negatively influenced dream research: what was the meaning of studying dreams if they were merely pointless emission of nerve signals at night?

**D** It takes grown-ups about a quarter of sleep time to maintain REM, much of it dreaming. During that time, the body is almost paralysed, but the brain is buzzing. Utilising PET and fMRI technology to monitor the dreaming brain, scientists have discovered that the limbic system controlling our emotions is one of the most active parts during REM. There is much less activity in the prefrontal cortex associated with logical thinking, which explains why dreams in REM

sleep usually lack a coherent storyline. (Some researchers have also found that people dream in non-REM sleep likewise, although those dreams generally are less lucid.) Another active part of the brain in REM sleep is the anterior cingulate cortex, which detects discrepancies. Eric Nofzinger, director of the Sleep Neuroimaging Program at the University of Pittsburgh Medical Centre, thinks that could be why people often try to solve thorny problems in their dreams. 'As if the brain surveys the internal milieu and tries to figure out what it should be doing, and whether our actions conflict with who we are,' he says.

**E** It may seem that these are very important mental functions, but there is no evidence that REM sleep or dreaming is critical to daily life or even sanity. An older class of antidepressants called monoamine oxidase inhibitors (MAOIs) could greatly obstruct REM sleep without any detectable side effects, though people do get a 'REM rebound' – extra REM – on the condition that they cease the medication. That is also the case of selective serotonin reuptake inhibitors (SSRIs) like Prozac, which could lower dreaming by a third to a half. Even the permanent loss of the capacity of dreaming does not mean being disabled. Peretz Lavie, a researcher from Israel, has been observing a patient **Yuval Chamtzani**. He got an injury at 19 by a piece of shrapnel penetrating his brain, and consequently, Chamtzani lost REM sleep and could no longer recall any dreams. Nevertheless, Lavie believes that Chamtzani, who is now 55 years old, is possibly the most ordinary person he has known and one of the most outstanding ones. 'He's a lawyer, a painter and an editor of the puzzle column in a popular Israeli newspaper,' says Lavie.

**F** REM sleep is mysterious in that even if it may not be indispensable, it is almost omnipresent – at least in mammals and birds. However, not all mammals and birds dream (or if they do, they're certainly not discussing about it). Some researchers consider REM may have undergone evolution due to physiological elements. 'One thing that's unique about mammals and birds is that they can regulate body temperature,' says neuroscientist Jerry Siegel, director of UCLA's Centre for Sleep Research. 'There's no reliable evidence that any cold-blooded animal has REM sleep.' Siegel says REM sleep heats up the brain and non-REM cools it off, suggesting that the changing sleep cycles allow the brain to repair itself. 'It is highly possible REM sleep is supplementing a fundamental physiological function and that dreams are a sort of epiphenomenon,' he adds, '– an extraneous by-product, like the foam on beer.'

**G** No matter what functions the nocturnal dreams have, they are undoubtedly beneficial for therapy during the day. The University of Maryland's Clara Hill, who has studied the use of dreams in therapy, notes that dreams are a 'back door' into a patient's thinking. 'Dreams reveal

stuff about you that you didn't know was there,' she says. She is training the therapists to work with patients' dreams, specifically, using dream imagery to expose worries, anxieties and other hidden emotions. Dreams provide hints to the essence of some severe mental diseases. Schizophrenics, for example, suffer from poor-quality dreams, which are usually relevant to objects rather than people. 'If you intend to understand human behaviour,' says Rosalind Cartwright, chairman of psychology at Rush University Medical Centre in Chicago, 'here's a big piece of it. Dreaming is our own storytelling time to let us know who we are, where we're going and how we're going to arrive there.' Cartwright has been studying depression in divorced men and women, and she has pointed out that 'good dreamers', who have lively dreams with strong storylines, are less likely to remain depressed. She thinks that dreaming helps relieve toxic emotions. 'Dreaming is a mental-health activity,' she says.

**Questions 27 - 31**

Reading Passage 3 has seven paragraphs, A–G.

Which paragraph contains the following information?

- 27.mention of the dreams of an artist with versatile talents
- 28.the fact that REM sleep occurs in a range of animals
- 29.the association between dreams and happiness
- 30.the practical scientific technology adopted in REM investigation
- 31.a query about the usefulness of investigation on dreams

**Questions 32 - 34****32.What do people in ancient times think of dreams?**

- A an unreliable superstition
- B opportunities to communicate with God and predict the future
- C medical relief for children with undesirable desires
- D rules to follow when sleeping in the temple

**33.According to Paragraph D, which part of the brain is in charge of reasoning?**

- A anterior cingulate cortex
- B internal milieu
- C limbic system
- D prefrontal cortex

**34.What can we learn from the dreams of the animals mentioned by the writer?**

- A Brain temperature rises when the REM pattern happens.
- B The explanation why mammals are warm-blooded is related to REM sleep.
- C Mammals are bound to appear with more frequent REM.
- D REM makes people want to drink beer with more foam.

**Questions 35 - 40**

Look at the following statements (Questions 35–40) and the list of people below.

Match each statement with the correct person, A–G.

Write the correct letter, A–G, in boxes 35–40 on your answer sheet.

**List of People**

- A Eric Nofzinger
- B Clara Hill
- C Robert McCarley
- D Sigmund Freud
- E Jerry Siegel
- F Rosalind Cartwright
- G Allan Hobson

35. Dreams sometimes come along with REM sleep as no more than a trivial attachment.

36. Probing patients' dreams would be beneficial for treatment as it uncovers unconscious thinking.

37. Dreams assist people in coping with difficulties they encounter in the daytime.

38. Decoding dreams would remind people of desires in their early days.

39. Dream research can give us a better understanding of ourselves.

40. Dreams occur randomly and are stimulated by the neural signals associated with REM sleep.