菠萝雅思阅读 7 月 passage3 补丁

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速记版

一、流动沙丘（Living Dunes）

When you think of a sand dune, you probably picture a barren pile of lifeless sand. But sand dunes are actually dynamic natural structures. They grow, shift and travel. They crawl with living things. Some sand dunes even sing.

A

Although no more than a pile of wind-blown sand, dunes can roll over trees and buildings, march relentlessly across highways, devour vehicles on its path, and threaten crops and factories in Africa, the Middle East, and China. In some places, killer dunes even roll in and swallow up towns. Entire villages have disappeared under the sand. In a few instances the government built new villages for those displaced only to find that new villages themselves were buried several years later. Preventing sand dunes from overwhelming cities and agricultural areas has become a priority for the United Nations Environment Program.

B

Some of the most significant experimental measurements on sand movement were performed by Ralph Bagnold, a British engineer who worked in Egypt prior to World War II. Bagnold investigated the physics of particles moving through the atmosphere and deposited by wind. He recognised two basic dune types, the crescentic dune, which he called “barchan,” and the linear dune, which he called longitudinal or “sief” (Arabic for “sword”). The crescentic barchan dune is the most common type of sand dune. As its name suggests, this dune is shaped like a crescent moon with points at each end, and it is usually wider than it is long. Some types of barchan dunes move faster over desert surfaces than any other type of dune. The linear dune is straighter than the crescentic dune with ridges as its prominent feature. Unlike crescentic dunes, linear dunes are longer than they are wide—in fact, some are more than 100 miles (about 160 kilometers) long. Dunes can also be comprised of smaller dunes of different types, called complex dunes.

C

Despite the complicated dynamics of dune formation, Bagnold noted that a sand dune generally needs the following three things to form: a large amount of loose sand in an area with little vegetation—usually on the coast or in a dried-up river, lake or sea bed; a wind or breeze to move the grains of sand; and an obstacle, which could be as small as a rock or as big as a tree, that causes the sand to lose momentum and settle. Where these three variables merge, a sand dune forms.

D

As the wind picks up the sand, the sand travels, but generally only about an inch or

two above the ground, until an obstacle causes it to stop. The heaviest grains settle against the obstacle, and a small ridge or bump forms. The lighter grains deposit themselves on the other side of the obstacle. Wind continues to move sand up to the top of the pile until the pile is so steep that it collapses under its own weight. The collapsing sand comes to rest when it reaches just the right steepness to keep the dune stable. The repeating cycle of sand inching up the windward side to the dune crest, then slipping down the dune's slip face allows the dune to inch forward, migrating in the direction the wind blows.

E

Depending on the speed and direction of the wind and the weight of the local sand, dunes will develop into different shapes and sizes. Stronger winds tend to make taller dunes; gentler winds tend to spread them out. If the direction of the wind generally is the same over the years, dunes gradually shift in that direction. But a dune is "a curiously dynamic creature", wrote Farouk El-Baz in National Geographic. Once formed, a dune can grow, change shape, move with the wind and even breed new dunes. Some of these offspring may be carried on the back of the mother dune. Others are born and race downwind, outpacing their parents.

F

Sand dunes even can be heard 'singing' in more than 30 locations worldwide, and in each place the sounds have their own characteristic frequency, or note. When the thirteenth century explorer Marco Polo encountered the weird and wonderful noises made by desert sand dunes, he attributed them to evil spirits. The sound is unearthly. The volume is also unnerving. Adding to the tone's otherworldliness is the inability of the human ear to localise the source of the noise. Stéphane Douady of the French national research agency CNRS and his colleagues have been delving deeper into dunes in Morocco, Chile, China and Oman, and believe they can now explain the exact mechanism behind this acoustic phenomenon.

G

The group hauled sand back to the laboratory and set it up in channels with automated pushing plates. The sands still sang, proving that the dune itself was not needed to act as a resonating body for the sound, as some researchers had theorised. To make the booming sound, the grains have to be of a small range of sizes, all alike in shape: well-rounded. Douady's key discovery was that this synchronised frequency — which determines the tone of sound — is the result of the grain size. The larger the grain, the lower the key. He has successfully predicted the notes emitted by dunes in Morocco, Chile and the US simply by measuring the size of the grains they contain. Douady also discovered that the singing grains had some kind of varnish or a smooth coating of various minerals: silicon, iron and manganese, which probably formed on the sand when the dunes once lay beneath an ancient ocean. But in the muted grains this coat had been worn away, which explains why only some dunes can sing. He admits he is unsure exactly what role the coating plays in producing the noise. The mysterious dunes, it seems, aren't quite ready yet to give up all of their secrets.

Questions 27-33

Reading passage 3 has seven paragraphs, A-G.

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

Write the correct number, i-x, in boxes 27-33 on your answer sheet.

List of Headings

i Shaping and reforming

ii Causes of desertification

iii Need combination of specific conditions

iv Potential threat to industry and communication

v An old superstition demystified

vi Differences and similarities

vii A continuous cycling process

viii Habitat for rare species

ix Replicating the process in laboratory

x Commonest type of dune

27 Paragraph A .....

28 Paragraph B .....

29 Paragraph C .....

30 Paragraph D .....

31 Paragraph E .....

32 Paragraph F .....

33 Paragraph G .....

Questions 34-36

Complete the sentences below.

Choose ONE WORD ONLY from the passage for each answer.

Write your answers in boxes 34-36 on your answer sheet.

34 ..... dune is said to have long ridges that can extend hundreds of miles.

35 According to Bagnold, an ..... is needed to stop the sand from moving before a dune can form.

36 Stéphane Douady believes the singing of dunes is not a spiritual phenomenon, but purely .....

Questions 37-40

Complete the summary below.

Choose ONE WORD ONLY from the passage for each answer.

Write your answers in boxes 37-40 on your answer sheet.

There are many different types of dunes, two of which are most commonly found in deserts throughout the world, the linear dune and the 37 ..... dune, sometimes also known as the crescentic dune. It's been long known that in some places dunes can even sing and the answer lies in the sand itself. To produce singing sand in lab, all the sands must have similar 38 ..... And scientists have discovered that the size of the sand can affect the 39 ..... of the sound. But the function of the varnish composed by a mixture of 40 ..... still remains puzzling.

答案

Question 27: iv

Question 28: x

Question 29: iii

Question 30: vii

Question 31: i

Question 32: v

Question 33: ix

Question 34: linear

Question 35: obstacle

Question 36: acoustic

Question 37: barchan

Question 38: shape

Question 39: tone

Question 40: minerals

二、风险认知与决策（Risk taking）

Risk taking

A We run risks. Most of the time we ignore them; sometimes we stop and decide how to deal with them. That's life. Risks arise in sports, in business, in personal relationships; they are present in the laboratory, in political calculations, everywhere. Acting individually, we often prefer to gain some benefit by accepting some danger. Acting collectively, we make similar trade-offs.

B When society must assess risks, and those risks can be clarified, at least in part, by science, technology or mathematics, the responsibility of the research community is to be clear and complete. But that is not always so easy. Furthermore, too few people pay full attention to the best evidence, much less modify their behaviors as a result. Even when the evidence of high risk is clear - about smoking, for instance - many will deny the risk, or dispute it, or accept that it exists and still go ahead. As a former cigarette smoker, I understand denial.

C Perhaps more important than the basic facts of risk are the varied perception of it. Hearing the prediction of 60% chance of rain, or recognizing the minuscule likelihood of becoming ill from a flu shot, most people understand the right responses: take your umbrella and get your flu shot. But some, fearfully but irrationally, go to the extreme and stay at home and avoid all contact with other people. Irrational decisions occasionally affect us all. When it comes to risks the best odds do not always influence people to make the correct decision.

D In her book, The Universe and the Teacup, the science writer K. C. Cole reminds us that the risks of losing something and gaining something appear to be calculated in our minds according to quite different scales. People will risk a lot to prevent a loss, she notes; some people will rush into a burning building to save a pet. But they will usually risk very little if the only perceived outcome is a possible gain; many people won't even risk pursuing an exciting job, if the current job, though unfulfilling, remains comfortable. That psychological mechanism, a desire to maintain the status quo, helps explain the high hurdles that any rational risk assessment must confront.

E Organizations face the same hurdles whenever they must cope with major shifts in policy. In his classic examination of the character of high-tech industry, Only the Paranoid Survive, Andrew S. Grove gives a perceptive account of a crisis that took place during his tenure as Chairman of the Intel Corporation. The business environment for Intel and its competitors was transformed by a flood of low-cost memory chips from Japan, and Intel made the difficult decision to abandon its chip-making business. Such a period of change in the outside world is filled with danger, Grove notes, precisely because it is so easy for executives to try to disregard it or misinterpret the mounting evidence showing the profound risks of not making change at the very core. The distinction Cole cites is instructive here: one reason management and staff may not act is that they tend to focus on the potential gains of risking change (which they characterize as small), rather than on the catastrophic losses that risking change could prevent. The period becomes critical for a company, according to Grove, and deadly when unattended to.

F Likewise, at the national level, and even the global one, institutions tend to be more

willing to take a risk if it means avoiding a loss, than they are if it might confer a gain. Almost everyone, for instance, sees the signs of ecological decay. Reid J. Lifset's article, 'Full Accounting', describes newly developed techniques for clarifying which critical decision would have the highest pay-offs for the environment. Once these 'leverage points' as he calls them, are located, many environmental organizations will be willing to risk the resources needed to prevent further deterioration.

G More complicated are decisions by nations to invest broadly in educational research. Some governmental leaders are oblivious to the risks posed by social underinvestment, because the urgent needs of the present take precedence over actions that would give rise to even more substantial gains in the future. Their attitude is that today's risks must be manageable, and that tomorrow's gains are at the very least difficult to measure. Better consideration and decision making for what lies ahead is essential.

H Nevertheless, I confess to being an optimist. My glass is generally half full - though that may not help me handle risk. Whether one's temperament is optimistic or pessimistic, everyone in our scientific and engineering community has a social responsibility: measure with care and portray with honesty the level of risk involved in any action or decision.

Questions 27-30

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

Write the correct letter, A-G, in boxes 27-30 on your answer sheet.

27.K. C. Cole points out that avoiding a loss seems more important to people than

28. According to Andrew S. Grove, it can be very dangerous for companies to ignore

29. Reid J. Lifset argues that environmental agencies can benefit from

30. The writer suggests that government leaders need to focus more on

List of endings

A planning for the future.

B predicting their errors.

C continuing in the present situation.

D recent findings on the most effective solutions to problems.

E achieving a gain.

F changes occurring externally.

G a high level of agreement.

Questions 31-39

Reading Passage 3 has eight paragraphs, A-H.

Which paragraph contains the following information?

Write the correct letter, A-H, in boxes 31-39 on your answer sheet.

NB You may use any letter more than once.

31 the areas of study that help us understand risk

32 reference to key actions that might benefit the world

33 examples of statistical predictions that the majority of the public react to in the same way

34 the variety of contexts in which risk occurs

35 mention of a habit that has been proved to be very risky

36 reference to market forces motivating change

37 the writer's current attitude towards risk

38 a reason why some individuals avoid making a career change

39 how some people over-react to information about risk

Question 40

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

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

At the end of the passage the writer concludes that

A risk is something we must try to avoid.

B experts should be truthful about risk to the public.

C optimists are better able to deal with risk than pessimists.

D it is important to take risks in order to fulfil social obligations.

答案

Question 27: E

Question 28: F

Question 29: D

Question 30: A

Question 31: B

Question 32: F

Question 33: C

Question 34: A

Question 35: B

Question 36: E

Question 37: H

Question 38: D

Question 39: C

Question 40: B

三、艺术与艺术家（Art and Artists）

A There really is no such thing as the "only artists". Once these were people who took coloured earth and roughed out the form of a bison on the wall of a cave; today some buy their paints, and others design posters for hoardings; they did and do many other things. There is no harm in calling all these activities art, as long as we keep in mind that such a word may mean very different things in different times and places, and as long as we realize that Art with a capital A has no existence; it has become something of an obsession. You may crush an artist by telling him that what he has just done may be quite good in its own way, only it is not "true art".

B Actually, I do not think that there are any wrong reasons for liking a statue or a picture. We may like a painting of a village scene because it reminds us of home. There is nothing wrong with that. All of us, when we see a painting, are bound to be reminded of a hundred-and-one things which influence our likes and dislikes. As long as these memories help us to enjoy what we see, we need not worry.

C It is only when some irrelevant memory makes us prejudiced, when we instinctively turn away from a magnificent picture of an alpine scene because we dislike climbing, that we should search our mind for the reason for the aversion which spoils a pleasure we might otherwise have had. There are wrong reasons for disliking a work of art.

D Most people like to see in pictures what they would also like to see in reality. This is quite a natural preference. We all like beauty in nature, and are grateful to the artists who have preserved it in their works. Nor would these artists themselves have rebuffed us for our taste. When the great Flemish painter Rubens made a drawing of his young son, he was surely proud of his good looks, and wanted us, too, to delight in the child's appearance. But this bias for the pretty and engaging subject is apt to become a stumbling block if it leads us to reject works which represent a less appealing subject.

E The great German painter Dürer certainly drew his mother with as much devotion and love as Rubens felt for his child. His truthful study of old age may give us a shock which makes us turn away from it—and yet, if we fight against that first reaction we may be richly rewarded. For Dürer's drawing in its tremendous sincerity is a great work. The beauty of a picture does not lie in the beauty of its subject so much. The trouble about beauty is that tastes and standards of what is beautiful vary much.

F What is true of beauty is also true of facial expression. In fact, it is often the expression of a figure in the painting which makes us like or loathe the work. Some people like an expression — perhaps of suffering or of compassion — which they can readily understand, and which therefore moves them profoundly. But we should not, for that reason, turn away from works whose expression is perhaps less easy to understand. Often we must first learn to know the artist's methods of drawing to understand the feelings he or she wishes to portray, and may even come to prefer works of art in which expression is not obvious. Just as some of us would rather people use few words and gestures and leave something to be guessed, so some of us would rather look at paintings or sculptures which are open to interpretation.

G But here newcomers to art are often brought up against another difficulty. They want to admire the artist's skill in representing the things they see. What they like best are paintings which "look real". This is an important consideration, and the patience and skill which go into the faithful rendering of the visible world are indeed to be admired. Great artists of the past have devoted much labour to works in which every tiny detail is carefully recorded. Dürer's watercolour study of a hare is one of the most famous examples of this loving patience. But who would say that Rembrandt's drawing of an elephant is necessarily less good because it shows fewer

details? Indeed Rembrandt gave us the feel of the elephant's wrinkly skin with just a few lines of chalk.

H If we find fault with the accuracy of a picture, we must remember that artists may have their reasons for changing the appearance of what they see. We should also never condemn a work for being "incorrectly drawn" unless we are quite sure that we are right and the painter is wrong. We have a curious habit of thinking that nature must always look like the pictures we are accustomed to. For generations, paintings showed horses galloping with outstretched legs in full flight through the air, and we came to believe that this was indeed how they moved. It was only the development of photography, which proved that horses simply do not gallop in that way. And yet, when painters began to apply this new discovery and painted horses moving as they actually do, everyone complained that their pictures looked wrong.

Questions 27-30

Reading Passage 3 has eight paragraphs, A-H.

Which paragraph contains the following information?

Write the correct letter, A-H, in boxes 27-30 on your answer sheet.

27. a comparison between people's preferences towards language and art __
28. why people may have misunderstood how a certain animal moves __
29. a contrast between the techniques used in two pictures __
30. a possible negative effect of using the term "art" __

Questions 31-36

Match each statement with the correct subject from the list below.

Write the correct letter, A-G, in boxes 31-36 on your answer sheet.

List of Subjects

A village scene

B alpine scene

C Rubens' son

D Dürer's mother

E hare

F elephant

G horses

31. The artist clearly hoped that we would share his admiration of this subject. __

32. The artist aims to give a general impression of this subject rather than a detailed one. __

33. Someone's personal experience may make them consider a painting of this subject unpleasant. __

34. The way in which this subject was once portrayed was factually wrong. __

35. The painting is well known for the effort the artist put into creating a very accurate picture of this subject. __

36. People may like a painting of this subject for a reason that is external to the painting. __

Questions 37-40

Complete the summary below.

Choose ONE WORD ONLY from the passage for each answer.

Write your answers in boxes 37-40 on your answer sheet.

Beauty and expression

Differences in tastes and standards of beauty make it difficult to judge a painting. Dürer's painting of his mother is considered significant because it is a 37 __ representation of her age and situation. However, we may need to overcome an initial reaction of 38 __ when we see it. In order to judge the facial expression the artist portrayed in a painting, we need to become familiar with the methods that the artist has used when creating the painting. While some of us are affected by the portrayal of a facial expression that we can 39 __ without much effort, others prefer expressions that require 40 __.

Answers

Question 27: F

Question 28: H

Question 29: G

Question 30: A

Question 31: C

Question 32: F

Question 33: B

Question 34: G

Question 35: E

Question 36: A

Question 37: truthful

Question 38: shock

Question 39: understand

Question 40: interpretation

四、白蚁丘（Termite Mounds）

A To most of us, termites are destructive insects which can cause damage on a devastating scale. But according to Dr Rupert Soar of Loughborough University's School of Mechanical and Manufacturing Engineering, these pests may serve a useful purpose for us after all. His multidisciplinary team of British and American engineers and biologists has set out to investigate the giant mounds built by termites in Namibia, in sub-Saharan Africa, as part of the most extensive study of these structures ever taken.

B Termite mounds are impressive for their size alone; typically they are three metres high, and some as tall as eight metres have been found. They also reach far into the earth, where the insects 'mine' their building materials, carefully selecting each grain of sand they use. The termite's nest is contained in the central cavity of the mound, safely protected from the harsh environment outside. The mound itself is formed of an intricate lattice of tunnels, which split into smaller and smaller tunnels, much like a person's blood vessels.

C This complex system of tunnels draws in air from the outside, capturing wind energy to drive it through the mound. It also serves to expel spent respiratory gases from the nest to prevent the termites from suffocating, so ensuring them a continuous provision of fresh, breathable air. So detailed is the design that the nest stays within three degrees of a constant temperature, despite variations on the outside of up to 50°C from blistering heat in the daytime to below freezing on the coldest nights. The mound also automatically regulates moisture in the air, by means of both its underground 'cellar', and evaporation from the top of the mound. Some colonies even had 'chimneys' at a height of 20m to control moisture loss in the hottest regions of sub-Saharan Africa.

D Furthermore, the termites have evolved in such a way as to outsource some of their biological functions. Part of their digestive process is carried out by a fungus, which they 'farm' inside the mound. This fungus, which is found nowhere else on earth, thrives in the constant and optimum environment of the mound. The termites feed the fungus with slightly chewed wood pulp, which the fungus then breaks down

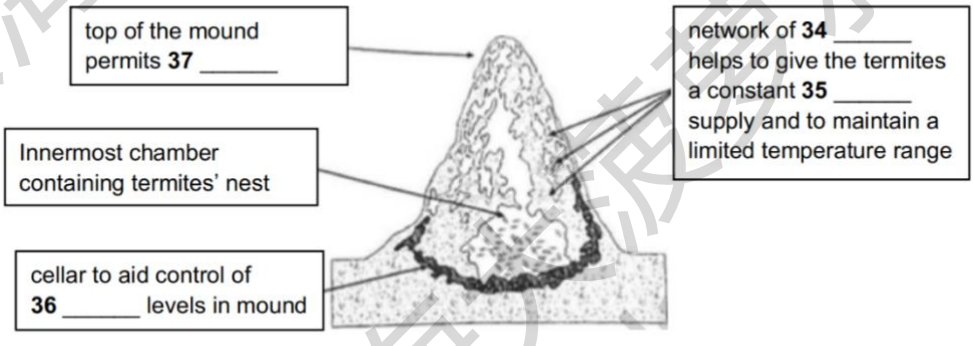
into a digestible sugary food to provide the insects with energy, and cellulose which they use for building. And, although the termites must generate waste, none ever leaves the structure, indicating that there is also some kind of internal waste-recycling system.

E Scientists are so excited by the mounds that they have labelled them a 'super organism' because, in Soar's words, "They dance on the edge of what we would perceive to be cool or, if you're too cold, you need to thrive: that's called homeostasis." What the termites have done is to move homeostatic function away from their body, into the structure in which they live. "As more information comes to light about the unique features of termite mounds, we may ultimately need to redefine our understanding of what constitutes a 'living' organism."

F To reveal the structure of the mounds, Soar's team begins by filling and covering them with plaster of Paris, a chalky white paste based on the mineral gypsum, which becomes rock-solid when dry. The researcher then carves the plaster of Paris into half-millimetre-thick slices, and photographs them sequentially. Once the pictures are digitally scanned, computer technology is able to recreate complex three-dimensional images of the mounds. These models have enabled the team to map termite architecture at a level of detail never before attained.

G Soar hopes that the models will explain how termite mounds create a self-regulating living environment which manages to respond to changing internal and external conditions without drawing on any outside source of power. If they do, the findings could be invaluable in informing future architectural design, and could inspire buildings that are self-sufficient, environmentally friendly, and cheap to run. "As we approach a world of climate change and temperatures rise," he explains, "there will not be enough fuel to drive air conditioners around the world." It is hoped, says Soar, "that the findings will provide clues that aid the ultimate development of new kinds of human habitats, suitable for a variety of arid, hostile environments not only on the earth but maybe one day on the moon and beyond."

Write your answers in boxes 34-37 on your answer sheet.



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-ix, in boxes 27-33 on your answer sheet.

List of headings

i methods used to investigate termite mound formation
ii challenging our assumptions about the nature of life
iii reconsidering the termite's reputation
iv principal functions of the termite mound
v distribution of termite mounds in sub-Saharan Africa
vi some potential benefits of understanding termite architecture
vii the astonishing physical dimensions of the termite mound
viii termite mounds under threat from global climate change
ix a mutually beneficial relationship

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

Questions 34-37

Label the diagram below.

Choose ONE WORD ONLY from the passage for each answer.

Write your answers in boxes 34-37 on your answer sheet.

Questions 38-40

Do the following statements agree with the claims of the writer in Reading Passage 3?

In boxes 38-40 on your answer sheet, write:

YES if the statement agrees with the claims of the writer

NO if the statement contradicts the claims of the writer

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

38 The termite mound appears to process its refuse material internally.

39 Dr Soar's reconstruction involves scanning a single photograph of a complete mound into a computer.

40 New information about termite architecture could help people deal with future energy crises.

答案

Question 27: iii

Question 28: vii

Question 29: iv

Question 30: ix

Question 31: ii

Question 32: i

Question 33: vi

Question 34: tunnels

Question 35: air

Question 36: moisture

Question 37: evaporation

Question 38: YES

Question 39: NO

Question 40: YES

五、尼安德特人的生存技艺（Neanderthal Technology）

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

Neanderthal Technology

A We think of our prehistoric ancestors as people of the ice and snow, living in caves, and for many of the West European Neanderthalers that is just a picture of their life. But where there were no caves, further to the east on the Russian steppe, for example, open-air sites with some sort of constructed shelter were the only option.

We now know much more about the cave sites than the open-air ones because, historically, it was the cave sites of Western Europe that were first explored by archaeologists and also because open-air sites are harder to find – many of them have disappeared under deep mud deposits or under the rising postglacial seas. Caves, moreover, aid the survival of archaeological material and can preserve the records of remote millennia.

B In south-west France, the limestone caves of the Perigord region made ideal homes for the Neanderthal people. There were good supplies of flint to hand for axes and the like, and the caves were often sited in small river valleys that offered protection against the worst of the weather. The Neanderthalers liked south-facing caves, for obvious reasons of sunshine and wind avoidance, and caves at some height above the valley floor offered refuge from floods and good game-watching vantage points.

The Perigord region during the last ice age was, in fact, an exceptionally benign habitat for humans. It enjoyed a rather maritime climate with cooler summers that permitted the extension of tundra and steppe over its higher plateaux, and its year-round high levels of sunshine favoured the growth of the ground plants needed by

reindeer, bison and horse. Winters were mildish for the ice age, animals never needed to migrate far from summer to winter, and men never needed to travel far from home to find abundant supplies of meat.

C In Central and Eastern Europe, where caves are less readily available, such open-air sites as have been discovered were mostly located near water: bottom-land was a good area to be for people and animals, and also because the sedimentation pattern of lakes and stream courses has aided archaeological preservation – whereas erosion has presumably blown away sites which were out in the open. Some of the open-air sites in Germany, Central Europe and Russia have provided valuable information about Neanderthal man and his way of life. From Moldova, for example, comes evidence that has been interpreted as the remains of wind-breaks, or even a large tent-ring, up to about 8×5 m in size, of mainly mammoth bones enclosing a dense concentration of stone tools, animal bones and ash.

D From the West European caves more evidence of built structures is available, and some of it goes back a long way in time. In the Grotte du Lazaret, near Nice, at a date during the last ice age but one, claims for some sort of skin tent within the cave have been advanced, on the basis of arrangements of large stones out from the cave wall that might have supported timber struts for a covering of skins up to the rock face above.

At Lazaret, what might be openings in the hypothesised tents seem to point away from the cave mouth, and finds of wolf and fox foot bones, without the rest of the skeletons, inside these 'tents' have been thought to indicate the use of animal pelts as bed coverings. The two patches of ash at Lazaret that mark ancient fires, with stone tools around them evidently made and used on the spot, are edged with small marine mollusc shells, prompting the excavator to suggest that seaweed had been used as bedding around the fires. The cave of Baume-Bonne in the Basses-Alpes region of France, another early site, boasts ten square metres of cobbles brought up from the local river and laid down, as though to take care of a puddle area in the cave, with the smoothest and roundest surfaces of the stones uppermost, and there are other similar cases.

E The ash encountered in concentrations at some sites testifies to the Neanderthal people's use of fire: not surprising, since use of fire was, by Neanderthal times, an already ancient accomplishment of evolving humanity, and survival in the sub-arctic conditions faced by the Neanderthals is inconceivable without control of fire. Fire gave warmth, light, heat for cooking and defence against predatory animals. A charred piece of birch from Krapina in Croatia is thought to be the remains of a fire-making twirl stick. But Neanderthal hearths, in the sense of specially constructed places for fire, are fewer and harder to identify with certainty than the mere ash piles

that are a regular feature of their sites. They seem often to have just lit a small fire (40–50 cm across) on the existing ground surface of the cave, without preparation. Judging from the shallow penetration of heat effects under the ash, this fire was only of short duration. Sometimes the fires were larger in size, up to one metre across, and quite irregular in shape. It is not always easy to decide how much additional structure some fires possessed: claims of stone circles to contain the fire run up against the fact that stones tend to litter the cave floors everywhere and those around a fire can quite accidentally look as though they were arranged in a circle.

Questions 27-31

Reading Passage 3 has five sections, A-E.

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

Write the correct number, i-vi, in boxes 27-31 on your answer sheet.

List of Headings

i Evidence of outdoor dwellings

ii Learning to make fire

iii A perfect place to live

iv Examining the cave contents

v Contrasting two types of home

vi A vital source of power

27 Section A

28 Section B

29 Section C

30 Section D

31 Section E

Questions 32-36

Look at the following findings (Questions 32-36) and the list of places below.

Match each finding with the correct place, A-E.

Write the correct letter, A-E, in boxes 32-36 on your answer sheet.

NB You may use any letter more than once.

32. a burnt piece of wood
33. evidence of efforts to prevent pools of water forming
34. the remains of sea creatures
35. a circular arrangement of animal bones
36. evidence suggesting the use of animal fur for warmth

List of Places

A The Perigord region

B Moldova

C The Grotte du Lazaret

D The cave of Baume-Bonne

E Krapina

Questions 37-39

Complete the summary below.

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

Write your answers in boxes 37-39 on your answer sheet.

The use of fire

Neanderthalers could not have survived without fire because the conditions they lived in were 37 _____ . Most evidence of purpose-built fires takes the form of ash piles, features of which suggest that the fires lasted a 38 _____ time. It is hard to be certain about the size and structure of the fires, though they were certainly needed to protect the occupants from dangerous 39 _____ , among other things.

Question 40

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

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

40. The purpose of the writer of this article is to

A argue that Neanderthal homes were bigger than originally thought.

B explain why Neanderthal people migrated to Western Europe.

C discuss what is known about Neanderthal settlements.

D track the progress of early Neanderthal development.

答案汇总

27. v
28. iii
29. i
30. iv
31. vi
32. E
33. D
34. C
35. B
36. C
37. sub-arctic
38. short
39. predatory animals
40. C

六、山洞研究：群体行为实验（The Robbers Cave

Study)

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

The Robbers Cave Study

A review of a famous study into group behaviour

Group self-centredness seems to occur the minute people are divided into groups. It doesn't matter what the group is, or on what basis it was formed, we perceive the group we belong to as being superior to other groups and we develop an 'in-group' bias.

Probably one of the most famous pieces of research looking at group behaviour was a field study conducted by Sherif in 1956. This study involved 22 boys aged between 11 and 12, who were divided into two groups. The groups were roughly matched in terms of sporting ability, camping experience and general popularity among their peers. Their parents were told that they were going to a three-week summer camp to see how well they would work alongside other boys when put into different teams. The parents were also told that the boys would not be allowed to be visited during that time, but would be able to go home if they wanted to. It was intended that the data for the study would be collected by participant observers.

At first, neither set of boys knew of the existence of the other set. They were taken to their respective campsites, which were located on a 200-acre, densely wooded area in Robbers Cave State Park, Oklahoma. The first week was spent doing a variety of activities, such as pitching tents and cooking. During this week, the two groups seemed to develop different group norms, one group being more 'tough' than the other, from which two boys went home early, as they were homesick. The groups were given a set of caps and T-shirts, and gave themselves names: the 'Eagles' and the 'Rattlers' (the latter being the tougher group).

At the end of the first week, they became aware of each other's existence by finding litter left by the other group or overhearing voices. Sherif noticed that already the groups had started to refer to the other group as 'them' and their group as 'us'. This marked the beginning of phase two of the experiment.

The groups were told that they were going to take part in a 'Grand Tournament',

which involved ten different sporting events, and they were shown the prizes for winning. The tournament was also to include in the final scores points which would be awarded for other activities, such as how tidy the cabins were kept. These scores were displayed on big scoreboards in what now became a joint hall where the two groups ate their meals together. This was necessary so the two groups would think they were on almost equal scores in the time leading up to the final event, which would increase the sense of competition. Needless to say, these scores were manipulated by the experimenters.

In order to check how high the levels of group self-centredness were in the groups at this time, a number of tasks were set up which involved the groups rating their own members and members of the other group. Each time, group members rated the boys in their own group much better at the tasks than the other boys, even though there was no real difference between them. They were also asked to rate all others in terms of how desirable they were as friends, and 93 per cent of friendship preferences were in-group preferences.

When the tournament started, the first game was basketball. The group that was thought to be less tough lost the game and claimed that they had lost only because the other group were bigger and older than they were. The Eagles won the next ball game and then were said to be cheating in the tug-of-war. This resulted in visits by both groups to each other's cabins over the course of the next 24 hours, where they ripped the mosquito nets, turned over the beds and generally made a mess. The Eagles devised a new weapon in the conflict which consisted of 'rocks in socks' – and so it went on. Eventually, the Eagles won the tournament (with some help from the experimenters) and it was time for phase three to begin.

Research has suggested that the best way to reduce group conflict is by non-competitive contact. This required two conditions: that the groups had equal status and that they had a common goal to work towards. This was exactly what Sherif engineered. There were actually seven situations organised which gave the groups equal-status contact; these were things like having meals together or watching films together. The meals resulted in food fights; the films were enjoyed by both groups sitting totally apart from each other.

The other situations, where the groups had to work for common goals, had a much better outcome. These included raising money to go and see a film and solving problems, such as one with the water supply. The final common goal was a visit by truck to Cedar Lake to camp there before the end of the holiday. In this situation, although both groups travelled in separate trucks, another problem-solving situation arose when one of the trucks became stuck. All the boys joined in, using one of the tug-of-war ropes to help move it. At this point the group boundaries were beginning to

disappear. On the final day, when they were due to return home, the boys themselves suggested that they travel in one bus and sat in friendship groups rather than as Eagles and Rattlers.

Questions 27-28

Choose TWO letters, A-F.

Write the correct letters in boxes 27 and 28 on your answer sheet.

Which TWO of the following statements about the boys who took part in the study are made by the writer?

A They had approximately the same number of friends.

B Some of their parents helped to set up the camp.

C They selected the group that they wanted to be in.

D They were responsible for bringing their own tents.

E They received clothes that identified the group they belonged to.

F Some of them were criticised for dropping litter.

Questions 29-34

Complete the summary below.

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

Write your answers in boxes 29-34 on your answer sheet.

The Grand Tournament

The Grand Tournament marked the second part of Sherif's experiment. It included a range of 29 _____ that each team would compete in, and the allocation of extra points for things like cleaning cabins.

To increase the competitive element of the tournament, the organisers used 30 _____ in the dining hall. They also made sure that the boys were under the impression that their scores were nearly 31 _____ as the tournament neared its end.

The 32 _____ , who were thought to be the tougher group, won the first ball game and lost the second. In other games there were accusations of 33 _____ . During the next day, various instances of conflict occurred within the boys' cabins. Eventually, the tournament was won by the group that was considered to be 34 _____ – the Eagles.

Questions 35-38

Complete the table below.

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

Write your answers in boxes 35-38 on your answer sheet.

Phase 3: Non-competitive contact

Conditions	Type of situation	Result
Equal status	eating	**35** _____
	36 _____	enjoyed them but were not sitting together
A 37 _____	raising money	
	38 _____, e.g. stuck truck	friendship groups

Questions 39-40

Choose TWO letters, A-F.

Write the correct letters in boxes 39 and 40 on your answer sheet.

Which TWO of the following statements are true of the experimenters who ran the study?

A They collected their data from secret observation posts.

B They encouraged the boys to use the terms 'them' and 'us'.

C They used a rating exercise to assess the amount of in-group bias.

D They took steps to avoid personal injury among the boys.

E They secretly altered some of the results of the tournament.

F They joined in with the non-competitive activities.

答案汇总

27. A
28. E
29. sporting events
30. scoreboards
31. equal
32. Rattlers
33. cheating
34. less tough
35. food fights
36. watching films
37. common goal
38. solving problems (或 problem-solving)
39. C
40. E

七、土地盐碱化（Sea Change for Salinity）

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

Sea Change for Salinity

One of the most serious problems facing Australian farmers is an increase in the salt content in the soil. However, there are new weapons emerging in the fight against salinity.

A Beneath the flat, impressive surface of Australia lie hidden mountains, valleys and gorges – ancient traps and channels for the deadly salt that is stealthily killing so much of the Australian landscape. The war on salt is calling forth new weapons. A suite of high technologies used by geologists to see underground and prospect for gold and minerals is now being used to pinpoint the presence of salt beneath the landscape, and to predict where it might move.

B Unless this process is clearly understood, warns Chief of Exploration and Mining Dr Neil Phillips, the hard work now underway of planning and tree-planting on the surface may be rendered ineffective: salt can still sneak past and erupt, following one of the ancient river channels formed millions of years ago. The use of airborne electromagnetics to detect salt hidden beneath the landscape has been around for a decade, but the past two years have seen a major development in its precision and powers of detection. Like the use of radar in battles, it has the potential to turn the tide of the struggle in favour of the defence by helping to pinpoint, plot and predict the movements of the foe.

C Angus Howell, who farms near Warrenbayne, in Southeast Australia, saw his first outbreak of salt in 1948. Over the ensuing decades the patches spread and multiplied until they consumed almost 100 hectares. By the late 1970s, Howell and his fellow farmers had decided it was time for action and established a government-funded "Landcare" group in a bid to save Australia's farmland. But despite a mounting effort by scientists, farmers and governments, the "white death" continued to encroach. Small successes were eclipsed by larger defeats and fresh outbreaks.

D "The technical solutions just aren't there yet for dealing with broadacre salinity, nor are the social and economic solutions. How do you introduce the land-use changes that are needed when people still need to make a living?" Howell asks. There is no satisfactory solution yet. Part of the problem has lain in salt's ability to mount ambushes, emerging somewhere new, sometimes unexpected and unexplained, beating plans to intercept it. Only now are scientists starting to really disclose its secret subterranean stores and passages.

E The need for such knowledge is pressing. Salt has already afflicted six million hectares of once-productive country. At present rates, it is predicted that, by 2050, it will have sterilised a total of 17 million hectares and the waters of Australia's Murray

River will regularly exceed the World Health Organisation's salt limits for drinking water. Defeating this assault may take centuries, not decades.

F Electromagnetic surveys measure the electrical conductivity of soil to reveal the distribution of salt and the nature and variability of the regolith – the weathered rock and sediment that may lie above the bedrock. Magnetic surveys measure small differences in the Earth's magnetic field, enabling scientists to probe the deep past and reconstruct ancient landscapes – rivers, basins and faults now buried under tens of metres of sediment. These features help to reveal where groundwater is stored, dictate the direction of groundwater movement, and are critical to predicting or ruling out salinity hot-spots.

G Radiometric analysis is based on the detection of radiation emitted by elements contained in rocks and soils, allowing scientists to delineate landforms. These factors influence the mobility of salt through the soil profile and help determine where to plant particular crop species to tackle the problem.

Using data from the Murray River region, scientists have revealed a network of ancient drainage systems that channelled water beneath the current land-surface. These buried channels may carry salt and sometimes run at right angles to channels on the surface. This implies that the salt could move underground in quite a different direction to what one would expect by looking at surface slope and drainage.

H One of the biggest advances in detection, says Professor Neil Phillips, has come with the integration of different techniques such as magnetics, electromagnetics and radiometrics, and ground mapping. Individually, these technologies only gave clues to what was going on underground. Together they provide a far more revealing picture of the subsurface landscape, several hundred metres deep. Advanced airborne electromagnetics, in particular, enables scientists to take "slices" of the landscape at depths of five metres, ten metres, fifteen metres and so on, to determine where salt may be stored at depth. This is building up a four-dimensional picture of the subsurface landscape, enabling researchers to understand movements of salt in length, breadth, depth and time.

From such technologies it will be possible to locate salt stores, identify how saline they are, look at man-made and natural changes to the landscape that may cause it to mobilise, and then predict where it will head to and over what time span. This in turn will give the salt warriors time to model various ways of containing or curbing the menace, see what works best and then try it out on the ground.

Questions 27-33

Reading Passage 3 has eight sections, A-H.

Which section contains the following information?

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

NB You may use any letter more than once.

27.a prediction of the future risk of salt to water supplies.

28.the reason why technologies must be combined to be effective.

29.a reference to the recent improvements in the accuracy of airborne electromagnetics.

30.the organization of concerned farmers into an official body.

31.the estimated length of time salinity is likely to be a problem.

32.a summary of stages in a proposed plan of action to combat the salt problem.

33.the possibility that current re-vegetation practices are a waste of time.

Questions 34-36

Look at the list of techniques (Questions 34-36) and the list of uses which follows it.

Match each technique with the correct use, A, B, C or D.

Write the correct letter, A, B, C or D, in boxes 34-36 on your answer sheet.

34.Electromagnetic surveys

35.Radiometric analysis

36.Airborne electromagnetics

List of uses

A can help farmers choose the best location for plants.

B can show the composition of the top layer of the ground.

C can detect how far below ground the salt is.

D can determine how old the salt is in a particular area.

Questions 37-40

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

Write the correct letter in boxes 37-40 on your answer sheet.

37.What link does the writer make between salt and gold?

A They can both be found in the same locations.

B Both have been found to have an impact on the landscape.

C The same techniques can be used to find both.

D Neither is present in mountainous areas.

38.What is the 'process' referred to in Section B?

A the killing of vegetation by salt

B salt's ability to travel below ground

C the ability of trees to decrease salt levels

D the detection of salt by tracing other minerals

39.According to Angus Howell, one problem in the fight against salinity is that

A not enough farmers are concerned about the fight.

B farmers' requests for help have been ignored.

C some possible measures may cause farmers to lose income.

D the government has not provided farmers with sufficient financial support.

40.Which of the following best describes the writer's view of the salinity problem in Australia?

A Farmers are fighting an enemy that moves secretly and hides well.

B Farmers have been able to contain this enemy in a small area.

C Farmers have already had significant success in fighting this problem.

D Farmers need to form more organised groups to solve this problem.

答案汇总

27.E

28.H

29.B

30.C

31.E

32.H

33.B

34.B

35.A

36.C

37.C

38.B

39.C

40.A

八、类人猿与争取法律权利的运动（Great Apes and the Push for Legal Rights）

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

Great Apes and the Push for Legal Rights

Calls to grant basic legal rights to great apes – our closest animal relatives, including chimpanzees, gorillas, orangutans, and bonobos – have been growing louder in recent decades. Proponents of this movement argue that because great apes share so many genetic, cognitive, and emotional similarities with humans, they deserve fundamental rights such as the right to life, freedom, and protection from torture. These advocates, notably philosophers like Peter Singer, point out that there is "no sound moral reason" to limit basic rights only to members of our own species. In 1993, Singer and others launched the Great Ape Project (GAP) with the aim of securing a "community of equals" in which human and non-human great apes alike enjoy these basic rights.

Progress in Policy

Since the 1990s, the great ape rights movement has achieved some concrete milestones. For example, in 1999 New Zealand enacted an amendment to its Animal Welfare Act that, while stopping short of full "legal personhood" for apes, effectively banned invasive research, testing or teaching involving great apes. This made New

Zealand one of the first countries to extend special legal protections to non-human hominids, granting great apes more protection than any other animals had at the time. Similarly, in 2008 Spain's parliament became the first national legislature to formally endorse the Great Ape Project's principles. The Spanish environmental committee approved a resolution urging recognition of great apes' rights to life and freedom. This led to plans to outlaw harmful experiments on apes, ban their use in circuses or TV commercials, and improve conditions for apes kept in zoos. Pedro Pozas, the Spanish director of GAP, hailed it as "a historic day in the struggle for animal rights...in defense of our evolutionary comrades."

The Case for Ape Rights

Why great apes? Advocates argue that great apes experience a rich emotional and social life much like humans. They form long-term family bonds, show grief at the death of loved ones, use primitive language and tools, and demonstrate self-awareness and empathy. In Singer's view, these capacities mean apes "deserve the same consideration humans extend to members of our own species." Even if apes cannot reciprocate or participate in human society at our level, supporters say that is morally irrelevant – after all, human infants or severely disabled individuals still have rights, and "if we were to meet intelligent extraterrestrials, would we deny them rights just because they're not Homo sapiens?" By this logic, extending basic rights to other intelligent, sentient beings is simply an "expansion of the moral circle" beyond humanity. Singer and his colleagues coined the term "speciesism" for the prejudice of favoring one's own species over others; they condemn this bias as akin to racism or sexism, arguing that shared sentience and intelligence, not species membership, should be the basis for moral rights.

Furthermore, many GAP supporters see great apes as just the first step toward broader animal protection. They chose apes because the ethical case is especially strong – apes are so close to us – and thus more likely to gain public support. "The GAP is not a plea to save endangered animals or for better treatment," Singer explains, "it is a call to respect the rights of individual animals...a first breach in the species barrier that could, in time, extend to other non-humans." In other words, giving gorillas and chimps basic rights would be an unprecedented legal breakthrough, one that implicitly recognizes that some non-human animals are entitled to the same legal consideration as humans.

Criticisms and Concerns

Not everyone agrees with this radical idea. Critics of great ape rights argue that we should not extend rights beyond our own species. They often point out that even among humans, many people still lack full human rights, so our focus should remain

on protecting human rights first. (Indeed, Amnesty International's Spanish branch responded to the GAP proposal by noting that "humans have yet to see their rights fully guaranteed.") Some view the campaign as misguided or even absurd – one Spanish archbishop famously complained that "only a ridiculous or distorted society" would grant human-like rights to apes. These opponents warn that blurring the once-clear line between humans and other animals could devalue human dignity or create a slippery slope of claims from "all sorts of creatures".

In fact, the "slippery slope" argument is a common theme. If we give chimps rights, skeptics ask, what about other intelligent animals like elephants or dolphins? Where do we stop? They worry that granting personhood to apes "may pave the way for the extension of rights to all primates, or all mammals, or all sentient beings." Even some animal welfare supporters are uneasy about this. In the Time magazine coverage of Spain's decision, a bullfighting advocate agreed apes should be protected from abuse, "but when you start equating animals with humans, it's a slippery slope." He feared it "could eventually lead" to calls for rights for other animals (tongue-in-cheek, "bull rights" for Spain's bulls) – a prospect he opposed.

Peter Singer's reply to this objection is essentially: so what? He acknowledges that ape rights could set a precedent for other animals – "They [critics] could be right. Only time will tell," he says – but that is no reason to reject the idea. "We should not be deterred from doing what is right now by the fear that we may later be persuaded to do what is right again." In other words, if extending rights to other deserving creatures follows logically, we ought to embrace that progression, not fear it. Likewise, law professor Gary Francione, a prominent animal rights theorist, actually supports the broader "slippery slope" in principle. Francione argues that all sentient beings (not just great apes) "deserve to be free from exploitation," since any being capable of feeling pain or pleasure has an interest in not suffering. In his view, focusing only on apes is arbitrary; he calls the exclusion of other feeling animals morally unjustifiable. Francione even criticizes the Great Ape Project for what he calls "similar minds" bias – granting rights to apes because they resemble us, rather than because of their sentience alone. Still, Francione and Singer share the same ultimate goal of ending the property status of animals; they differ mainly on strategy (whether to start with apes or advocate for all animals at once).

Another concern is practical impact on science. Some scientists worry that giving legal rights or personhood to apes could undermine valuable medical research and complicate how we treat animals in captivity. In the 1980s and 90s, research on chimpanzees contributed to studies on diseases like AIDS and hepatitis. Opponents of an outright ban argued that in a public health emergency (say, a new lethal virus), researchers "may need to use chimps, orangutans or even gorillas" to find a cure. They also argue that humans have a unique moral status necessary for ethical research boundaries. Granting rights to apes blurs the human-animal boundary, they

claim, and could hamstring scientific progress. For instance, Colin Blakemore, a prominent British neuroscientist, felt "not entirely comfortable" with a total ban on ape experiments and worried about "where the moral boundaries lie" if we treat apes almost like humans.

However, supporters counter that this worry is largely outdated. In practice, using great apes in research has already been in decline for decades. Britain banned experiments on great apes in 1986; New Zealand did so in 1999; and by 2010, the EU had outlawed all great ape research. Singer noted in 2006 that "no European medical research [was] currently being conducted on great apes," since the only chimp lab in the EU (in the Netherlands) had just been shut down for lack of necessity. In the United States as well, the National Institutes of Health decided to retire most research chimps by the 2010s. Given these trends, Singer argues that banning ape experiments is scientifically acceptable, and in any case the moral imperative of protecting our "evolutionary cousins" outweighs any extremely remote scenarios. He also clarifies that recognizing apes' rights would not mean ending all captivity or human care. Apes born in zoos wouldn't simply be released into the wild to die; rather, they would be treated more like wards under human guardianship, much as incapacitated humans have guardians. The aim is to stop treating great apes as mere property. As Singer puts it, "Today, great apes are property...they are the closest things now existing to slaves... It is time to put the slavery of the apes behind us."

Broader Implications

The push for great ape rights raises profound questions about how we draw our species boundaries in law and morality. It forces us to ask what qualities confer basic rights – is it membership in the human species, or is it intelligence, self-awareness, the capacity to suffer, or something else? If societies accept that certain non-humans deserve legal rights, that could pave the way for rethinking the status of many other animals in captivity, entertainment, or agriculture. Some conservationists have even speculated that granting legal rights to wild great apes might inadvertently strengthen efforts to protect them. For instance, if wild orangutans or gorillas are legally seen as "persons" with a right to life and habitat, governments might be obliged to crack down harder on poaching, illegal wildlife trade, and deforestation in ape habitats. In this view, an "ape rights" approach could complement traditional conservation, adding moral and legal weight to saving these species from extinction. Others caution, however, that focusing on individual rights might conflict with species-level conservation priorities or rural human communities' needs. This debate is ongoing, but it underlines how recognizing ape rights could transform our approach to wildlife protection – perhaps extending the concept of "rights" from the realm of ethics into ecology.

Conclusion

In summary, the idea of extending legal personhood and basic rights to great apes has moved from a fringe proposal to a topic of serious discussion over the past 30 years. It has seen some success (like New Zealand's and Spain's actions) and sparked intense philosophical debate. Supporters like Singer insist that our shared qualities with apes demand we broaden our circle of concern – denying apes rights purely because they're not human is unjust "speciesism." Critics – from religious leaders to humanist organizations – respond that human rights should be secured first and that we risk erasing the unique moral line separating humans from animals. There are also practical worries about impacts on research and societal values. As of now, great apes remain legal property in most of the world, without rights, but the Great Ape Project's campaign has at least succeeded in forcing people to confront the question: If not humans, who else merits basic rights? And if chimpanzees do, then perhaps our ethical community is not a humans-only club after all. This ongoing conversation represents "a significant step forwards" in humanity's ever-expanding moral evolution.、

九、观赛心境（Inside the mind of a fan）

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

Inside the mind of a fan

How watching sport affects the brain

A At about the same time that the poet Homer invented the epic there, the ancient Greeks started a festival in which men competed in a single race, about 200 metres long. The winner received a branch of wild olives. The Greeks called this celebration the Olympics. Though the ancient sprint remains, today the Olympics are far more than that. Indeed, the Games seem to celebrate the dream of progress as embodied in the human form. That the Games are intoxicating to watch is beyond question. During the Athens Olympics in 2004, 3.4 billion people, half the world, watched them on television. Certainly, being a spectator is a thrilling experience—but why?

B In 1996, three Italian neuroscientists, Giacomo Rizzolatti, Leonardo Fogassi and Vittorio Gallese, examined the premotor cortex of monkeys. They discovered that inside these primate brains there were groups of cells that 'store vocabularies of

motor actions', just as there are grammars of movement. These networks of cells are the bodily 'sentences' we use every day, the ones our brain has chosen to retain and refine. Think, for example, about a golf swing. To those who have only watched the Masters Tournament on TV, golfing seems easy. To the novice, however, the skill of casting a smooth arc with a lopsided metal stick is virtually impossible. This is because most novices swing with their consciousness, using an area of the brain next to the premotor cortex. To the expert, on the other hand, a perfectly balanced stroke is second nature. For him, the motor action has become memorized, and the movements are embedded in the neurons of his premotor cortex. He hits the ball with the tranquility of his perfected autopilot.

C These neurons in the premotor cortex, besides explaining why certain athletes seem to possess almost unbelievable levels of skill, have an even more amazing characteristic, one that caused Rizzolatti, Fogassi and Gallese to give them the lofty title 'mirror neurons'. They note that 'the main functional characteristic of mirror neurons is that they become active both when the monkey performs a particular action (for example, grasping an object or holding it) and, astonishingly, when it sees another individual performing a similar action'. Humans have an even more elaborate mirror neuron system. These peculiar cells mirror, inside the brain, the outside world: they enable us to internalize the actions of another. In order to be activated, though, these cells require what the scientists call 'goal-orientated movements'. If we are staring at a photograph, a fixed image of a runner mid-stride, our mirror neurons are totally silent. They only fire when the runner is active: running, moving or sprinting.

D What these electrophysiological studies indicate is that when we watch a golfer or a runner in action, the mirror neurons in our own premotor cortex light up as if we were the ones competing. This phenomenon of neural mirroring was first discovered in 1954, when two French physiologists, Gastaut and Bert, found that the brains of humans vibrate with two distinct wavelengths, alpha and mu. The mu system is involved in neural mirroring. It is active when our bodies are still, and disappears whenever we do something active, like playing a sport or changing the TV channel. The surprising fact is that the mu signal is also quiet when we watch someone else being active, as on TV. These results are the effect of mirror neurons.

E Rizzolatti, Fogassi and Gallese call the idea of mirror neurons the 'direct matching hypothesis'. They believe that we only understand the movement of sports stars when we 'map the visual representation of the observed action onto our motor representation of the same action'. According to this theory, watching an Olympic athlete 'causes the motor system of the observer to resonate. The 'motor knowledge' of the observer is used to understand the observed action.' But mirror neurons are more than just the neural basis for our attitude to sport. It turns out that watching a great golfer makes us better golfers, and watching a great sprinter actually makes us run faster. This ability to learn by watching is a crucial skill. From the acquisition of

language as infants to learning facial expressions, mimesis (copying) is an essential part of being conscious. The best athletes are those with a premotor cortex capable of imagining the movements of victory, together with the physical properties to make those movements real.

F But how many of us regularly watch sports in order to be a better athlete? Rather, we watch sport for the feeling, the human drama. This feeling also derives from mirror neurons. By letting spectators share in the motions of victory, they also allow us to share in its feelings. This is because they are directly connected to the amygdala, one of the main brain regions involved in emotion. During the Olympics, the mirror neurons of whole nations will be electrically identical, their athletes causing spectators to feel, just for a second or two, the same thing. Watching sports brings people together. Most of us will never run a mile in under four minutes, or hit a home run. Our consolation comes in watching. When we gather around the TV, we all feel, just for a moment, what it is to do something perfectly.

Questions 27-32

Reading Passage has six paragraphs, A-F.

Which paragraph contains the following information?

Write the correct letter, A-F, in boxes 27-32 on your answer sheet.

NB You may use any letter more than once.

27. an explanation of why watching sport may be emotionally satisfying
28. an explanation of why beginners find sporting tasks difficult
29. a factor that needs to combine with mirroring to attain sporting excellence
30. a comparison of human and animal mirror neurons
31. the first discovery of brain activity related to mirror neurons
32. a claim linking observation to improvement in performance

Questions 33-35

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

Write the correct letter in boxes 33-35 on your answer sheet.

33. The writer uses the term 'grammar of movement' to mean

A a level of sporting skill.

B a system of words about movement.

C a pattern of connected cells.

D a type of golf swing.

34. The writer states that expert players perform their actions

A without conscious thought.

B by planning each phase of movement.

C without regular practice.

D by thinking about the actions of others.

35. The writer states that the most common motive for watching sport is to

A improve personal performance.

B feel linked with people of different nationalities.

C experience strong positive emotions.

D realize what skill consists of.

Questions 36-40

Do the following statements agree with the claims of the writer in Reading Passage 3?

In boxes 36-40 on your answer sheet, write

YES if the statement agrees with the claims of the writer

NO if the statement contradicts the claims of the writer

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

36. Inexpert sports players are too aware of what they are doing.
37. Monkeys have a more complex mirror neuron system than humans.
38. Looking at a photograph can activate mirror neurons.
39. Gastaut and Bert were both researchers and sports players.
40. The mu system is at rest when we are engaged in an activity.

答案汇总

27. F

28. B
29. E
30. C
31. D
32. E
33. C
34. A
35. C
36. YES
37. NO
38. NO
39. NOT GIVEN
40. YES

十、纵向研究（The Dunedin Study）

A

The New Zealand city of Dunedin in the early 1970s can easily be made to sound idyllic. There was next to no unemployment and people left their doors unlocked at night. New Zealand was then the ninth richest country in the world and many residents believed that, as a place to bring up children, this was a city without rival. However, Phil Silva, an educational psychologist, was not so certain and decided to take a closer look. Silva identified those children born in the year from April 1, 1972, whose mothers were still living in the city three years later. The parents were asked if they would mind bringing their children in for a health and development assessment. Incredibly, no fewer than 91% agreed to help and 1,037 three-year-olds completed half a day of tests and experiments. In the process, the Dunedin Multidisciplinary Health and Development Study was born.

B

There was precious little money at Silva's disposal, so the assessments were done in a church with the help of dozens of volunteers. Each child was assessed against a range of measures such as height, weight, and head circumference. Language skills were assessed and profiles of behaviour were compiled. However, one set of assessments was never going to satisfy Silva's curiosity, so when the children were five, his same team asked the parents to bring the children back for a second study. Of the original 1,037 children, 96% came. The data gathered at age three was

updated and new measurement criteria - discipline, nutrition, dental health - were introduced.

C

By 1978, Silva was able to shock the nation with his findings: one in four children had delayed language development; 15% had ear problems; the researchers had identified one child who was blind and another who might have died from undetected skin cancer. New Zealanders, Silva declared, were more diligent about their cars than their children. Cars were required by law to be regularly checked; if children were treated similarly, ideally at behavioural clinics in schools, problems could be picked up in time to prevent lasting damage.

D

The parents were asked to bring their children back at ages seven, nine and 11 to the old church for further assessments. Crucially for the study's survival, the politicians were finally starting to take note and government funding began to trickle in. By the time the children returned at age 13, the study had taken up residence in an abandoned building tucked behind the dental school. It wouldn't have been the researchers' first choice, and was certainly not grand, but it was at least a site for the long term and its acquisition represented a landmark in the study's development. It was to this building that the participants returned at ages 15, 18, 21, 26 and, most recently, at 32.

E

Among the most recent findings are that birth complications—a focus of Silva's original research—don't necessarily set children up for problems as they mature in later life, although the amount a newborn infant weighs is associated with IQ. Paediatric textbooks had insisted for years that breastfeeding protected against medical problems like asthma and allergies. The Dunedin study has shown that assumption to be incorrect. Other findings that challenged the received wisdom include the fact that thumb-sucking does no harm; birth order makes no difference to later development; and pre-schoolers whose mothers work are not disadvantaged. Overall, the study has confirmed the notion that broad personality traits are laid down by the age of three. Along the way, the Dunedin researchers have been able to contradict old assumptions and explode medical myths long held by the profession.

F

The Dunedin study is important not only because of its findings, however. It also provides a model because of the extraordinary commitment of study members. No other longitudinal research project in the world matches its retention rate of 96% at age 32. Silva concedes that luck has a lot to do with this: Dunedin city was, and

largely still is, close-knit, homogeneous and devoted to its university and medical school. It is large enough to produce a study population that produces findings that can be generalised to New Zealand and other developed countries, yet small enough that one in every ten households has had a child or relative in the study.

G

More important than circumstance, though, was the approach taken by the researchers. Silva recalls that by year 13, participation had dropped off—only 82% came in for assessments. He realised the most important asset they had was the sample group and these people must be nurtured at all costs. He spent many long hours out in the field, finding those participants who had gone adrift and persuading them to come in. Study members are kept up to date with the steady flow of findings to which they have contributed. Privacy is absolutely paramount: Silva won't even say how many of the study members are now in prison; nothing must erode the trust that's been built up over the years.

H

Today, more than a quarter of the sample live overseas, so the study also has its own travel agent, who does her best to accommodate requests to spend Christmas in Dunedin with family. This is just one example of the enormous effort that goes into maintaining contact and removing obstacles to participation. With such diligence and care, researchers hope the Dunedin study will continue for many years, perhaps generations, to come.

Questions 27–32

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

27 What does the writer say about Dunedin in the 1970s?

A. It was the safest city in the country.

B. It was less prosperous than other cities.

C. Many people were frustrated that they could not find a job.

D. It was wealthy and seen as an ideal place to raise children.

28 What did the writer find surprising about Phil Silva's original study?

A. That the study was held in a church.

B. That the tests took half a day.

C. That 91% of parents agreed to help.

D. That the study used volunteers.

29 What was Silva's main finding in 1978?

A. Children had excellent language.

B. Many children had developmental problems.

C. No children had ear problems.

D. All children were healthy.

30 What was different about the first and second studies?

A. The sample group was smaller in the first study.

B. The second study produced conflicting results.

C. Helpers were not used in the second study.

D. The second study collected additional types of information.

31 What problem did Silva face when conducting the original study?

A. A shortage of helpers.

B. A lack of available funding.

C. The bad behaviour of some children.

D. The poor language skills of the participants.

32 Why does the writer mention the new building in the fourth paragraph?

A. To show how generous project funding had become.

B. To show that the study was being taken seriously.

C. To emphasise the temporary nature of the facilities.

D. To highlight that the children disliked the site.

Questions 33–36

Choose YES* if the statement agrees with the claims of the writer, choose *NO* if the statement contradicts the claims of the writer, or *NOT GIVEN if it is impossible to say what the writer thinks about this.

33 Recent results suggest that intellectual development and birth weight are linked.

- YES

- NO
- NOT GIVEN

34 Medical textbooks used to claim that breast-fed children were more intelligent.

- YES
- NO
- NOT GIVEN

35 Children who suck their thumbs are prone to developmental problems.

- YES
- NO
- NOT GIVEN

36 The findings of the Dunedin study have challenged some doctors' preconceptions.

- YES
- NO
- NOT GIVEN

Questions 37–40

Complete the summary below using the list of words, A-H, below.

A model study

The success of the Dunedin project has been put down to two principal factors: good fortune and Phil Silva's methodology. The demographics of Dunedin mean that residents feel committed to the study, and that it also provides **37** _____ that can be applied both nationally and internationally, but even more important was Silva's conviction that the **38** _____ must be looked after; nothing should be done to threaten the study's **39** _____ and as a result Silva is cautious when questioned, and a lot of work is done to minimise **40** _____ in order to ensure that the study continues into the future.

- **A** generalisable research
- **B** study members
- **C** government funding

- **D** assessments
- **E** loyalty
- **F** barriers to involvement
- **G** confidentiality
- **H** results

答案：

Question 27: D

Question 28: C

Question 29: B

Question 30: D

Question 31: B

Question 32: B

Question 33: YES

Question 34: NOT GIVEN

Question 35: NO

Question 36: YES

Question 37: A

Question 38: B

Question 39: G

Question 40: F

十一、如何赢得世界记忆锦标赛（How to win the World Memory Championship）

Why do some people seem to have naturally superior memories? Is it talent, a technique or a matter of genetics?

Last August, 34 contestants gathered at the World Memory Championships held in Oxford University. In timed trials, they were challenged to memorise rows of 40-digit numbers and the names of 110 people after looking at their photographs and memorise the sequence of packs of playing cards. No-one has ever managed this last feat in under 30 seconds and so this has become the target for 'mental athletes'. Even so, most contestants in the memory championships claim to have just average memories and scientific testing confirms that this is indeed true. Their feats are based on tricks that capitalise on how the human brain encodes information. They have the potential to perform just as well if we are taught certain strategies.

Psychologists Eleanor Maguire and John Wilding recently teamed up with Eleanor Maguire, a neuroscientist at University College London, to study eight of these contestants. They wondered if their brains were different in some way. They put the contestants and a group of control subjects into an MRI machine and asked them to perform several different memory tests while their brains were being scanned. When it came to memorising sequences of three-digit numbers, the difference between the subjects was, as anticipated, immense. However, the MRI scans revealed something unexpected. When the memory contestants were performing the tasks, certain regions of their brains—specifically the medial parietal cortex, retrosplenial cortex, and the right posterior hippocampus—were far more active than in the control subjects. These areas are known to be involved in spatial memory and navigation. This finding suggested that the contestants were not relying on raw brainpower or any innate genetic advantage. Instead, they were unconsciously employing a particular technique that engaged spatial learning pathways, even when the task itself had no spatial component whatsoever.

The technique in question is ancient, known formally as the "method of loci" or more colloquially as the "memory palace". Its origins can be traced back to the Greek poet Simonides of Ceos around 500 BCE. According to legend, Simonides was attending a banquet when he was called outside. Moments after he left, the building collapsed, crushing all the guests beyond recognition. Simonides found he could identify the bodies by mentally walking through the ruined hall and recalling exactly where each guest had been sitting. From this traumatic experience, he formulated a principle that would shape memory training for millennia: that we are exceptionally good at remembering places and the images we associate with them. The method of loci involves visualising a familiar journey or architectural space—such as your childhood home, your daily walk to work, or a imagined palace with many rooms—and mentally placing the items to be remembered at specific locations along the route. When you need to recall the information, you simply take that mental walk again and "see" what you have stored in each location.

This technique exploits a fundamental feature of human cognition. Evolutionarily speaking, our ancestors needed excellent spatial memory to survive—to remember where water sources were located, where dangerous animals lurked, and how to find their way back to shelter. Consequently, the neural architecture dedicated to spatial processing is remarkably powerful and efficient. By converting abstract, hard-to-remember information into vivid, concrete mental images and anchoring them to spatial locations, we can hijack this ancient brain system for modern memory tasks. The more bizarre, emotional, or sensory-rich the mental image, the more memorable it becomes. For instance, to remember a shopping list including milk, bread, and eggs, a memory athlete might visualise a giant bottle of milk dancing on their front doorstep, a loaf of bread with legs sitting on the hallway chair, and a chorus line of eggs performing on the living room sofa.

Returning to the MRI study, Maguire and Wilding followed up their initial findings by interviewing the contestants in detail about their mental strategies. Every single one of them reported using the method of loci or a variation of it, often combined with

other mnemonic systems for encoding numbers and faces. The control subjects, by contrast, reported trying to memorise the information through rote repetition, a far less efficient strategy. This confirmed that the brain activation patterns observed were not a sign of innate superiority but rather reflected the application of a learned technique. A subsequent study by Maguire's team scanned the brains of memory champions before and after they underwent intensive training in the method of loci. After several weeks of practice, not only did their memory performance improve dramatically, but their brain scans during memory tasks began to resemble those of the seasoned champions, with increased activation in the same spatial processing regions. This provided powerful evidence that the technique itself reshapes how the brain approaches memory challenges.

The implications of this research are profound. It suggests that exceptional memory is not a gift bestowed upon a lucky few but a skill that can be acquired through training. Anyone with a functioning brain and the dedication to practice can construct their own memory palaces and achieve feats that would seem miraculous to the untrained observer. Indeed, many of the world's leading memory champions started as ordinary individuals with no particular memory prowess. The current world record holder for memorising a deck of cards, for example, was an engineering student who simply became fascinated by the techniques and devoted hours each day to practice. His achievement of just over 13 seconds for a full deck would have seemed impossible a generation ago, yet it stands as a testament to what systematic training can accomplish.

Of course, not all memory is the same. The method of loci is exceptionally effective for memorising lists, sequences, and structured information, but it may be less applicable to other forms of memory, such as procedural memory for skills like playing a musical instrument, or semantic memory for understanding concepts and meanings. Moreover, the technique requires considerable mental effort and concentration to deploy effectively. It is not a passive shortcut but an active cognitive strategy that demands engagement. Nevertheless, for students preparing for examinations, professionals needing to master large volumes of information, or older adults hoping to maintain cognitive vitality, learning the method of loci can be transformative. Educational institutions are beginning to take notice, with some incorporating mnemonic training into their curricula to help students learn more efficiently.

The World Memory Championships continue to grow in popularity, with competitors from dozens of nations testing the limits of human recall. The disciplines have expanded to include abstract images, binary digits, spoken numbers, and historical dates, but the underlying techniques remain remarkably consistent. As neuroscience advances, we may discover even more effective ways to enhance memory, perhaps through brain stimulation or cognitive-enhancing drugs. However, for now, the humble memory palace, invented by a Greek poet over two millennia ago, remains the most powerful tool available for turning an ordinary memory into an extraordinary one. It demonstrates that with the right strategy, the human brain's potential is far greater than most of us ever imagine.

Questions 27-32

Do the following statements agree with the information given in Reading Passage 3?

In boxes 27-32 on your answer sheet, write

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

27. No competitor has ever managed to memorise a sequence of playing cards in under 30 seconds. .....

28. The control subjects in the MRI study were also experienced memory athletes. .....

29. The medial parietal cortex is involved in processing auditory information. .....

30. Simonides of Ceos developed the method of loci after a building collapsed at a banquet he was attending. .....

31. The current world record for memorising a deck of cards is approximately 13 seconds. .....

32. Educational institutions have universally adopted mnemonic training in their curricula. .....

Questions 33-37

Complete the summary below.

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

Write your answers in boxes 33-37 on your answer sheet.

The MRI study revealed that memory contestants activated brain regions associated with 33 ..... memory, even though the tasks were not spatial. This suggested they were using a technique rather than relying on genetic gifts. The technique, known as the method of loci or the 34 ....., involves placing items to be remembered in familiar locations. This works because human ancestors needed excellent spatial memory for 35 ....., making these brain pathways highly efficient. To make memories stronger, experts recommend creating images that are bizarre, emotional, or 36 ..... . A later study showed that after training in this method, the brain scans of ordinary subjects began to resemble those of 37 ..... .

Questions 38-40

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

Write your answers in boxes 38-40 on your answer sheet.

38. According to the passage, what was significant about the follow-up study where ordinary subjects were trained in the method of loci?

A It proved that some people are naturally better at spatial memory.

B It showed that brain activation patterns can change with learning.

C It demonstrated that rote repetition is more effective than mnemonics.

D It confirmed that memory champions have larger hippocampi.

39. The passage suggests that the method of loci is particularly effective for memorising

A how to play a musical instrument.

B the meaning of complex concepts.

C lists and sequences of information.

D physical movements and procedures.

40. What is the main conclusion of the passage regarding exceptional memory?

A It is primarily determined by genetics and cannot be taught.

B It remains a mysterious phenomenon that science cannot explain.

C It is a skill that can be developed through learned strategies and practice.

D It depends entirely on the size and structure of the hippocampus.

答案

Question 27: TRUE

Question 28: FALSE

Question 29: FALSE

Question 30: TRUE

Question 31: TRUE

Question 32: FALSE

Question 33: spatial

Question 34: memory palace

Question 35: survive

Question 36: sensory-rich

Question 37: seasoned champions

Question 38: B

Question 39: C

Question 40: C

十二、昆虫机器人（Insect-inspired robots）

A A tiny insect navigates its way across featureless salt-pans. A cockroach successfully works out how to scramble over an obstacle. The mantis shrimp scans its aquatic world through hyperspectral eyes. Using the most basic of equipment and brains tinier than a pin-head, insects constantly solve complex problems of movement, vision and navigation - processing data that would challenge a super-computer. How they do it is driving one of the most exciting new fields of technology - biomimetics and biorobotics, the imitation of insect systems to control man-made machines. Delegates at a recent conference presented some outcomes of their work in this area.

B Dr Alex Zelinsky suggested that the method by which wasps use landmarks to find their way back to the nest may one day be part of a system for navigating cars that know where to go. A research team led by Dr Zelinsky has shown that a robot can navigate its way among 50 different landmarks by recognising them individually using a panoramic camera. "The inspiration came from biology, where wasps use a practical method: turn back and look to orient themselves as they emerge from their nest. By flying to and fro, they look at the wasp nest from different angles and perspectives so they can recognise it again," he explained. The robot's panoramic camera logs the surrounding area and its key landmarks, which are then stored in its computer according to how reliable they are as navigational aids. The landmarks are then scaled, from small to large, so that the robot can recognise whether it is getting closer to or further away from them. Their location is built into a map in its mind, which operates at different scales and instructs the robot whether to turn left or right at a particular mark. The technology provides a general way for a machine to navigate an unknown landscape.

C For three decades, Professor Ruediger Wehner has journeyed from Switzerland to the Sahara Desert where Cataglyphis, a tiny ant with a brain weighing just 0.1mg, performs acts of navigational genius when it leaves its nest, forages for food and returns successfully. Cataglyphis uses polarised light, caused when air molecules scatter light, to orient and steer itself. Wehner's team found that the ant has a set of specialised photoreceptors along the upper rim of its eyes that detect polarised light, while other receptors perform different navigational tasks. As the sun moves, the ant notes its direction each time it leaves the nest and updates its internal compass. Using other eye receptors it stores a snapshot image of landmarks close to the nest entrance in its eyes and compares this with what it sees as it returns. The ant also has a way of measuring distance travelled, while a path integrator periodically

informs the ant of its current position relative to its point of departure. Rather than integrate all the information it receives in its brain, the ant actually performs a number of complex calculations in different organs. Like a super-computer, the ant has many separate sub-routines going on simultaneously. Using the ant's ability to steer by polarised light and to store and reuse landscape images, Wehner and colleagues have built "Sahabot," a small vehicle that uses polarisers and a CCD camera to store 360° images of its surroundings. It navigates by using polarised sunlight and comparing the current images of landmarks to the ones in its memory.

D Professor Robert Michelson had a different desert challenge - to design a flying robot that can not only navigate but also stay aloft and hover in the thin atmosphere of Mars. Drawing inspiration from insect flight, he has gone beyond nature to devise a completely new concept for a flying machine. The "Entomopter" is a sort of double-ended dragonfly whose wings beat reciprocally. Michelson says that the flapping-wing design gives the craft unusually high lift compared with a fixed-wing flyer, enabling it to fly slowly or hover in the thin Martian air - whereas a fixed-wing craft would have to move at more than 400 km/h and could not stop to explore.

E Engineer Roger Quinn and entomologist Professor Roy Ritzmann are taking their inspiration from cockroaches. According to Quinn and Ritzmann, the ability of cockroaches to run very fast over rough terrain may one day give rise to a completely new all-terrain vehicle with six legs, or maybe even wheel-like legs called "whegs." The key to the cockroach's remarkable cross-country performance lies partly in the fact that its legs do a lot of the thinking without having to consult the brain. Quinn and Ritzmann are drawing on cockroach skills to create robotic walkers and control strategies that capture the remarkable capacity of these insects to traverse complex terrain and navigate safely toward goals while avoiding obstacles. The team has already designed a series of robots that run on six legs or on whegs, enabling them to handle surprisingly rugged terrain.

F International experts believe there are tremendous opportunities in biorobotics. However, delegates at the conference had differing visions for the future of the science. While some were concerned that the initial applications of biorobotics may be military, others, such as Dr Barbara Webb, predicted swarms of tiny, cheap, insect-like robots as society's cleaners and collectors. Sonja Kleinlogel hoped the study of the hyperspectral eyes of the mantis shrimp might yield remote sensors that can watch over the environmental health of our oceans. Several delegates were concerned about the ethical implications of biorobotics and urged that close attention be paid to this as the science and technologies develop.

Questions 27-32

Reading Passage 3 has six sections, A-F.

Which section contains the following information?

Write the correct letter, A-F, in boxes 27-32 on your answer sheet.

27.positive and negative possibilities for the use of insect-inspired robots .....

28.how perceived size is used as an aid to navigation .....

29.an example of decision-making taking place in the limbs .....

30.a description of a potential aid in space exploration .....

31.the range of skills that have inspired biorobotics .....

32.how a variety of navigational methods operate at the same time .....

Questions 33-36

Answer the questions below.

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

Write your answers in boxes 33-36 on your answer sheet.

33.Which creature sees particularly well under water? .....

34.In addition to a computer, what technical equipment is fitted in Dr Zelinsky's robot? .....

35.Where is the Cataglyphis ant found? .....

36.What atmospheric effect helps the Cataglyphis ant to know its direction? .....

Questions 37-40

Look at the following people (Questions 37-40) and the list of robots below.

Match each person or people with the correct robot, A-G.

Write the correct letter, A-G, in boxes 37-40 on your answer sheet.

37.Dr Alex Zelinsky .....

38.Professor Ruediger Wehner .....

39.Professor Robert Michelson .....

40.Roger Quinn and Professor Roy Ritzmann .....

List of Robots

A a robot that makes use of light as well as stored images for navigational purposes

B a robot that can contribute to environmental health

C a robot that can move over difficult surfaces

D a robot that categorises information from the environment according to its usefulness

E a robot that can be used to clean surfaces and collect rubbish

F a robot that has improved on the ability of the insect on which it is based

G a robot that can replace soldiers in war

答案

Question 27: F

Question 28: B

Question 29: E

Question 30: D

Question 31: A

Question 32: C

Question 33: mantis shrimp

Question 34: (a) panoramic camera

Question 35: the Sahara Desert

Question 36: polarised light

Question 37: D

Question 38: A

Question 39: F

Question 40: C

十三、信息论——大数据（Information Theory - the Big Data）

A In April 2002 an event took place which demonstrated one of the many applications of information theory. The space probe, Voyager I, launched in 1977, had sent back spectacular images of Jupiter and Saturn and then soared out of the Solar System on a one-way mission to the stars. After 25 years of exposure to the

freezing temperatures of deep space, the probe was beginning to show its age. Sensors and circuits were on the brink of failing and NASA experts realized that they had to do something or lose contact with their probe forever. The solution was to get a message to Voyager I to instruct it to use spares to change the failing parts. With the probe 12 billion kilometers from Earth, this was not an easy task. By means of a radio dish belonging to NASA's Deep Space Network, the message was sent out into the depths of space. Even travelling at the speed of light, it took over 11 hours to reach its target, far beyond the orbit of Pluto. Yet, incredibly, the little probe managed to hear the faint call from its home planet, and successfully made the switchover.

B It was the longest distance repair job in history, and a triumph for the NASA engineers. But it also highlighted the astonishing power of the techniques developed by American communications engineer Claude Shannon, who had died just a year earlier. Born in 1916 in Petoskey, Michigan, Shannon showed an early talent for maths and for building gadgets, and made breakthroughs in the foundations of computer technology when still a student. While at Bell laboratories, Shannon developed information theory, but shunned the resulting acclaim. In the 1940s he singlehandedly created an entire science of communication which has since inveigled its way into a host of applications, from DVDs to satellite communication to bar codes - any area, in short, where data has to be conveyed rapidly yet accurately.

C This all seems light years away from the down-to-earth uses Shannon originally had for his work, which began when he was a 22-year-old graduate engineering student at the prestigious Massachusetts Institute of Technology in 1939. He set out with an apparently simple aim: to pin down the precise meaning of the concept of 'information'. The most basic form of information, Shannon argued, is whether something is true or false - which can be captured in the binary unit, or 'bit', of the form 1 or 0. Having identified this fundamental unit, Shannon set about defining otherwise vague ideas about information and how to transmit it from place to place. In the process he discovered something surprising: it is always possible to guarantee information will get through random interference - 'noise' - intact.

D Noise usually means unwanted sounds which interfere with genuine information. Information theory generalizes this idea via theorems that capture the effects of noise with mathematical precision. In particular, Shannon showed that noise sets a limit on the rate at which information can pass along communication channels while remaining error-free. This rate depends on the relative strengths of the signal and noise travelling down the communication channel, and on its capacity (its 'bandwidth'). The resulting limit, given in units of bits per second, is the absolute maximum rate of error-free communication given signal strength and noise level. The trick, Shannon showed, is to find ways of packaging up - 'coding' - information to cope with the ravages of noise, while staying within the information carrying capacity ('bandwidth') of the communication system being used.

E Over the years scientists have devised many such coding methods, and they have proved crucial in many technological feats. The Voyager spacecraft transmitted data using codes which added one extra bit for every single bit of information; the result was an error rate of just one bit in 10,000 — and stunningly clear pictures of the planets. Other codes have become parts of everyday life - such as the Universal Product Code, or bar code, which uses a simple error-detecting system that ensures supermarket check-out lasers can read the price even on, say, a crumpled bag of crisps. As recently as 1993, engineers made a major breakthrough by discovering so-called turbo codes - which come very close to Shannon's ultimate limit for the maximum rate that data can be transmitted reliably, and now play a key role in the mobile videophone revolution.

F Shannon also laid the foundations of more efficient ways of storing information, by stripping out superfluous (redundant) bits from data which contributed little real information. As mobile phone text messages like 'I CN C U' show, it is often possible to leave out a lot of data without losing much meaning. As with error correction, however, there's a limit beyond which messages become too ambiguous. Shannon showed how to calculate this limit, opening the way to the design of compression methods that cram maximum information into the minimum space.

Questions 27-32

Reading Passage has six paragraphs, A-F.

Which paragraph contains the following information?

Write the correct letter, A-F, in boxes 27-32 on your answer sheet.

27.an explanation of the factors affecting the transmission of information .....

28.an example of how unnecessary information can be omitted .....

29.a reference to Shannon's attitude to fame .....

30.details of a machine capable of interpreting incomplete information .....

31.a detailed account of an incident involving information theory .....

32.a reference to what Shannon initially intended to achieve in his research .....

Questions 33-37

Complete the notes below.

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

Write your answers in boxes 33-37 on your answer sheet.

The Voyager I Space Probe

The probe transmitted pictures of both 33..... and then left the 34..... . The freezing temperatures were found to have a negative effect on parts of the space probe. Scientists feared that both the 35..... were about to stop working. The only hope was to tell the probe to replace them with 36..... - but distance made communication with the probe difficult. A 37..... was used to transmit the message at the speed of light. The message was picked up by the probe and the switchover took place.

Questions 38-40

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

In boxes 38-40 on your answer sheet, write:

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

38.The concept of describing something as true or false was the starting point for Shannon in his attempts to send messages over distances. .....

39.The amount of information that can be sent in a given time period is determined with reference to the signal strength and noise level. .....

40.Products have now been developed which can convey more information than Shannon had anticipated as possible. .....

答案

Question 27: D

Question 28: F

Question 29: B

Question 30: E

Question 31: A

Question 32: C

Question 33: Jupiter and Saturn

Question 34: Solar System

Question 35: sensors and circuits

Question 36: spares

Question 37: radio dish

Question 38: TRUE

Question 39: TRUE

Question 40: FALSE

十四、让我们都成为朋友（Let's All be Friends）

A From healthcare to climate change, governments today face a range of problems in which they must persuade people to change their behaviour. But maybe instead of relying on their powers of persuasion, governments should consider using the science of social networks as a tool to do this. True, many claims for the power of these are based on the hype surrounding major social networking websites. But the basic idea is simple: people can join together in groups with particular patterns of social links, and these patterns then have important effects on the way they behave.

B The shape of these networks has surprising effects. Take an unlikely example: stage musicals. Brian Uzzi is a sociologist at Northwestern University in Chicago. He is also a big fan of musicals. Musicals have been big business for decades, but investors have to guess which shows will be a hit. Bye Bye Birdie, a profitable 1960 production, ran for 607 nights. Bring Back Birdie, its 1981 sequel, closed after just four. Intrigued, Uzzi used network science to find out why. He investigated 321 American musicals that were launched between 1945 and 1989, paying particular attention to whether the team of director, producers, choreographers and writers had worked together before. After crunching the statistics, he discovered something remarkable. Teams who had never worked together, perhaps unsurprisingly, fared poorly: their 'weak' networks meant a lack of creative vision, and lots of failures. And at the other extreme, teams that had worked together successfully also tended to produce flops. Sometimes, lacking outside creative input, the team just rehashed the same ideas that worked the last time; sometimes, lacking newcomers, they 'developed' their vision in unwise ways. Either way, lightning rarely struck twice. But, in between, Uzzi found a point of balance. Groups with exactly the right mix of new and old participants reliably produced hits. This variation in the 'density' of the ties allowed easy communication and fostered greater creativity; new ideas from the

outsiders meshed with the experience of the insiders. It made no difference whether a musical was about cats or roller-skating, or who starred in it - what mattered was the nature of the network binding its team together.

C These insights have some fascinating consequences for policymaking—particularly in the area of health. According to network science, teenagers are more likely to adopt unhealthy eating habits if their friends' friends consume junk food, even if they don't personally know those individuals. Conversely, they may be encouraged to eat more healthily if their immediate friends do. This opens up opportunities for governments to reduce spending. For example, suppose a health authority has £100 and wants to improve the diets of ten people. If it invests £10 in each individual separately, it might only influence one or two. However, by investing the entire sum in persuading one or two key individuals who are central to a social network, the authority could trigger a cascade effect, influencing the entire group for a fraction of the cost. The same principle could be applied to other areas, such as encouraging physical exercise or quitting smoking.

D However, the influence of networks is not always positive. The same mechanisms that can spread healthy behaviours can also amplify harmful ones. Financial panic, political extremism, and the rapid proliferation of unhealthy fads can all be accelerated by tightly-knit social networks. This presents a significant challenge for policymakers: how to harness the power of social connectivity for good while mitigating its potential for harm. Understanding the precise structure of these networks—identifying the key influencers and the strength of the connections between people—is therefore critical. Without this map of human relationships, any intervention risks being ineffective or even counterproductive.

Questions 27-31

Complete the summary below.

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

Write your answers in boxes 27-31 on your answer sheet.

Brian Uzzi's research into Broadway musicals revealed that the success of a production was not determined by its subject matter or cast, but by the 27..... of its creative team. He found that groups composed entirely of newcomers were often unsuccessful due to a lack of 28..... . Conversely, teams that had a history of working together also frequently produced 29..... because they tended to reuse old ideas. The most successful teams had a 30..... of experienced and new members. This balance in network 31..... promoted effective communication and creativity.

Questions 32-36

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

In boxes 32-36 on your answer sheet, write:

YES if the statement agrees with the claims of the writer

NO if the statement contradicts the claims of the writer

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

32.Governments are currently very effective at using social network science. .....

33.Bring Back Birdie was financially successful. .....

34.Uzzi's study analysed musicals from the first half of the 20th century. .....

35.The eating habits of a teenager can be affected by someone they have never met. .....

36.Investing money in central figures is guaranteed to be more cost-effective. .....

Questions 37-40

Complete the notes below.

Choose ONE WORD ONLY from the passage for each answer.

Write your answers in boxes 37-40 on your answer sheet.

The Implications of Network Science

Positive use for governments:

Can be used to improve public health initiatives, e.g., diet and 37..... .

Targeting key people in a network can create a 38..... effect, influencing many others.

Risks and challenges:

Networks can also spread 39..... behaviours, like financial panic or extreme views.

To use networks effectively, policymakers must understand their 40..... .

答案

Question 27: network

Question 28: vision

Question 29: flops

Question 30: mix

Question 31: density

Question 32: NO

Question 33: NO

Question 34: NO

Question 35: YES

Question 36: NO

Question 37: exercise

Question 38: cascade

Question 39: harmful

Question 40: structure

十五、营销与信息时代（Marketing and The Information Age）

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

Marketing and The Information Age

A For the early practitioners of marketing in the late 19th and early 20th centuries, the business of selling was simply a matter of continually finding new customers. By contrast, marketing managers in the current era recognise the importance of gathering information about the market and about potential customers. They recognise that if companies are to be profitable, customers must gain and retain their perceptions of value from the brands they buy over a long time frame, rather than from a single transaction. This also means that customers must see value in returning continually to the stores where they shop, as well as to the service providers they deal with.

B Marketing practitioners and marketing scientists have never worked more closely

than they currently do. There are many reasons for this, including the fact that this is the information age where convergence in telecommunications, media and technology is causing old ways to be challenged, and new methods and tools to be tested. Customer expectations have risen as new technologies allow new approaches. For instance, the subscriber-TV music channel [V] encourages its viewers to sign up for text messages and email alerts that tell them when their favourite artists and songs are about to be broadcast. Competitive advantage lies in being able to recognise which customers can be given greater attention, not just because they demand it but because it makes commercial sense to provide high levels of product quality and service.

C Modern marketing information systems rely on information technology to enable marketing intelligence to be gathered and to store and analyse marketing research information. While some of the information used is gathered by government bodies such as the Australian Bureau of Statistics and Statistics New Zealand, most of it is purposefully gathered by marketing organisations for client companies. In the process, computer technology is used to manipulate the data and then to present the information in such a way that executives can readily identify any problems or issues, and quickly arrive at solutions.

D In order to produce superior value and satisfaction for customers, marketing managers need information at almost every turn. They need information about customers – endusers and resellers – as well as competitors and governmental and other forces in the marketplace. One marketing executive put it this way: 'To manage a business well is to manage its future; and to manage the future is to manage information.' Increasingly, marketers are viewing information not just as an input for making better decisions but also as an important strategic asset and marketing tool. As household incomes increase, choice widens and buyers become better at discriminating, so sellers need information about how buyers respond to different products and advertising campaigns.

E The supply of information has also increased greatly. It has been suggested by the futurist and best-selling author John Naisbitt that the United States and, by observation, developed countries such as Australia, New Zealand and Singapore are moving from industrial to information-based economies. These post-industrial economies earn 70-80% of their Gross Domestic Product from services, and have entered what some commentators have termed the 'Information Age' or the 'Information Technology Era'.

F One study found that with all the information now available through supermarket scanners, a packaged-goods product controller is bombarded with one million to one billion new numbers each week. As Naisbitt points out: 'Running out of information is

not a problem, but drowning in it is.' Yet marketers frequently complain that they lack information of the right kind but have plenty of the wrong kind, or they claim that marketing information is so widely spread throughout the organisation that it takes great effort to locate even simple facts. In addition, subordinates may withhold information they believe will reflect badly on their performance and important information often arrives too late to be useful, or on-time information is not accurate. So marketing managers need better information. Although marketing organisations have greater capacity to provide managers with information, they often do not use it well. As a result, many marketing organisations are now studying their managers' information needs and designing information systems specifically to meet those needs.

G One solution is to use a Marketing Information System (MIS). This consists of people, equipment and procedures which, when put together, are able to gather, analyse, evaluate and distribute needed, timely and accurate information to marketing decisionmakers. The MIS begins and ends with marketing managers. First, it interacts with these managers to assess the information needs they have. Next, it develops the needed information from internal records, marketing intelligence activities and the research process. The analysis unit processes the data to make it more useful and, finally, the MIS distributes it to managers in the right form and at the right time to help them make better marketing decisions.

H However, the costs of obtaining, processing, storing and delivering information can mount quickly. In some cases additional information will do little to change or improve a manager's decision, or the costs of the information will exceed the returns from the improved decision. For example, if an organisation estimates that launching a new product without any further information will yield a profit of $500,000, then it would be foolish to spend $30,000 for additional information that would increase the profit to only $525,000. By itself, information is valueless – its value comes from its use.

Questions 27-31

Reading Passage 3 has eight paragraphs, A-H.

Which paragraph contains the following information?

Write the correct letter, A-H, in boxes 27-31 on your answer sheet.

NB You may use any letter more than once.

27. the fact that there may be too much information to cope with

28. the relevance of generating repeat business

29. an example of personalised marketing

30. an illustration of a situation where commissioning new information research might not be advisable

31. how the greater wealth of customers enables them to select from a broader range of products

Questions 32-36

Do the following statements agree with the claims of the writer in Reading Passage 3?

In boxes 32-36 on your answer sheet, write

YES if the statement agrees with the claims of the writer

NO if the statement contradicts the claims of the writer

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

32. The majority of marketing statistics are gathered by government agencies.

33. The move from an industrial to an information-based economy has happened more quickly in New Zealand than in Australia.

34. Employees sometimes hide information that gives a poor impression of them.

35. Managers frequently fail to make good use of the information they receive.

36. Marketing information has to be used to be valuable.

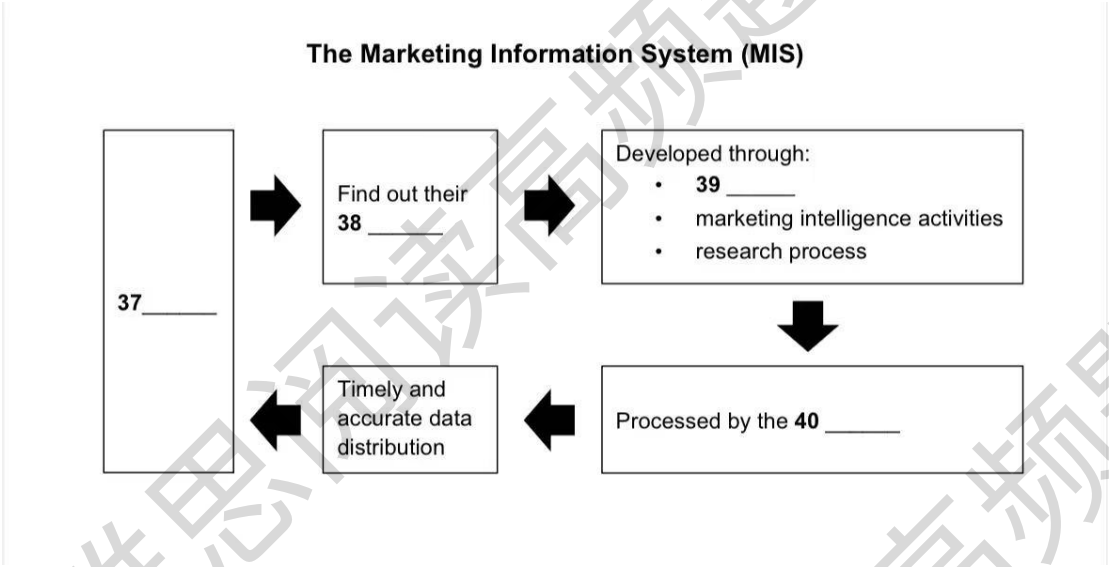
Questions 37-40

Complete the flow-chart below.

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

Write your answers in boxes 37-40 on your answer sheet.

The Marketing Information System (MIS)



答案汇总

27. F
28. A
29. B
30. H
31. D
32. NO
33. NOT GIVEN
34. YES
35. YES
36. YES
37. marketing managers
38. information needs
39. internal records
40. analysis unit

十六、论耳机的使用（Some views on the use of headphones）

Some views on the use of headphones

Whether wearing headphones at work, or in other areas of everyday life, is a good

thing or a bad thing has generated a lot of research and opinion

Section 1

To visit a typical modern office today is to walk into a room with possibly a dozen songs playing simultaneously but to hear none of them. Up to half of younger workers listen to music on their headphones, and nearly all of them think it makes them better at their jobs. In survey after survey, people report with confidence that music makes them happier, better at concentrating, and more productive.

Scientists do not share this belief; they maintain that listening to music hurts people's ability to recall other things they should be doing, and any pop song, loud or soft, reduces overall performance for both extroverts and introverts. A Taiwanese study linked music that has lyrics to lower marks on concentration tests for college students, and other research has shown music with lyrics scrambles our brains' verbal-processing skills. "As silence has the best overall performance, it would still be advisable that people work in silence," another reporter dryly concluded.

Section 2

The question is therefore: if headphones are so bad for productivity, why do so many people at work have them? One factor to consider is that countries like the USA have moved from a farming and manufacturing economy to a service economy, with an emphasis on jobs in offices that require higher levels of concentration, reflection and creativity. As an estimated 70 percent of office workers work in open-plan office spaces, it is more important to create one's own enclosing bubble of sound. Lending strength to the argument for headphones at work is evidence that music relaxes our muscles, improves our mood, and may even moderately reduce blood pressure, heart rate and anxiety.

Section 3

The story of headphones began in 1910, when the US Navy received an odd letter written in purple ink on blue-and-pink paper. The letter writer, an eccentric inventor and repairman named Nathaniel Baldwin, from the US state of Utah, made what at the time was an astonishing claim: he had built, in his kitchen, a new kind of headset that could amplify sound. This was an opportune invention for the Navy, which asked for a sound test and then enthusiastically adopted the headsets, later called headphones, and used them in World War I for naval radio communication.

Section 4

The purpose of headphones is to concentrate a quiet and private sound in the ear of the listener, which is a radical departure from music's social purpose in history.

"Music, together with dance, co-evolved biologically and culturally to serve as a technology of social bonding," Nils L. Wallin and Bjorn Merker wrote in The Origins of Music. Songs don't leave behind bones, but evidence of musical notation dates back to Sumeria, 3,500 years ago, and in 1995 archaeologists discovered a bone flute in southern Europe estimated to be 44,000 years old. If music evolved as a social glue for the species, as a way to make groups and keep them together, headphones have done what writing and literacy did for language – they made music private.

Section 5

Author and columnist Stephen Marche wrote that separation from other people is one of the first things ordinary Americans spend their money achieving. It is "a by-product of a longstanding national appetite for independence," he said. Americans are not alone in their desire for personal independence and privacy. Marche is right; wealth can buy – and modern technology can deliver – personal independence, and it is this that people have always sought.

Section 6

Dr Michael Bull, an expert on personal music devices from the University of Sussex in the UK, has repeatedly made the larger point that personal music devices change how we relate to public spaces. Controlling our public spaces is more important now that more people are moving from the edges of cities to live in urban centres. "With the urban space, the more it's inhabited, the safer you feel," Bull says. "You feel safe if you can feel people there, but you don't want to interact with them." Headphones create shields for wearers, separating them from other people and their surroundings. Headphones have their own rules of good manners; they are like wearing a "Do not disturb" sign. We assume that people wearing them are busy and we should respect their privacy, so now people wear them to appear busy. In fact, it is now becoming quite common for people not to listen to anything at all, but just to wear headphones.

Section 7

However, as pointed out at the beginning of this piece, although scientists have stated that headphones are bad for productivity, people still wear them at work. It is not just that headphones create privacy out of public areas, but also that music causes people to relax and reflect and pause. The outcome of relaxation, reflection and pausing at work won't be captured in minute-to-minute productivity metrics. What must be considered is that in moments of extreme focus, our attention radiates outward, toward the problem, rather than inward, on how to solve the problem. However, with music "When our minds are at ease, we're more likely to direct the spotlight of attention inward," Jonah Lehrer wrote in his book Imagine: How Creativity Works. "The answers have been there all along. We just weren't listening." In a crowded world, real estate is the ultimate scarce resource, and a headphone is a small invisible fence around our minds – making space, creating separation, and

helping us listen to ourselves.

Questions 27-31

Do the following statements agree with the information given in Reading Passage 3?

In boxes 27-31 on your answer sheet, write

YES if the statement agrees with the information

NO if the statement contradicts the information

NOT GIVEN if there is no information on this

27. Young people are easily persuaded by surveys that listening to music is beneficial.NOT GIVEN 28. Different studies share the same conclusions about the desirability of working in silence.YES 29. Some doctors recommend wearing headphones to lower blood pressure.NOT GIVEN

30. Nathaniel Baldwin was a respected government researcher.NO

31. The effect of the invention of headphones is comparable to the effect of the invention of writing.YES

Questions 32-36

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

Write the correct letter in boxes 32-36 on your answer sheet.

32. What does the writer suggest about a service economy?A The work is mentally demandingA

33. When the writer mentions the historical evidence for early music, he isC lending support to the view that music has been important in human historyC

34. What does the writer say about the social effects of listening to music through headphones?D It has changed the traditional role of music in societyD

35. What does the writer say about personal independence?B Personal independence is something that can be purchasedB

36. Why does the writer quote Jonah Lehrer in the last paragraph?A To support the writer's own viewA

Questions 37-40

Complete the summary using the list of words, A-I, below.

Write the correct letter, A-I, in boxes 37-40 on your answer sheet.

Headphones and city living

Dr Michael Bull believes that listening to music through headphones has changed the 37 _____ the wearers of headphones have with public spaces. Living in the centre of cities is becoming popular, as people become less keen on living in the 38 _____. In densely populated city centres, headphones form 39 _____ that isolate people from fellow citizens and from their environment. Wearers of headphones are treated with 40 _____ that other people do not receive. This is because if we see someone wearing headphones, we believe they must be occupied in some way and should not be interrupted.

A courtesy

B relationship

C difficulty

D countryside

E suburbs

F language

G barriers

H obstacles

I disapproval

答案：

27. **NOT GIVEN**
28. **YES**
29. **NOT GIVEN**
30. **NO**
31. **YES**
32. **A**
33. **C**
34. **D**
35. **B**
36. **A**
37. **B**
38. **E**

39. **G**

40. **A**

十七、死前必吃的 1000 道菜（What Are the 1,000 Foods to Eat Before You Die?）

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

What Are the 1,000 Foods to Eat Before You Die?

Written by a former *New York Times* restaurant critic, this tome will keep your appetite satisfied for a lifetime.

When was the last time you sat down to a meal of hamam meshwi, a.k.a. grilled pigeon, which is most likely found on a menu in Egypt? Or traveled to Oslo, Norway, for a breakfast of freshly caught shrimp? Chances are probably never. However, thanks to former *New York Times* restaurant critic, *Smithsonian* contributor, and author Mimi Sheraton's latest book, *1,000 Foods to Eat Before You Die*, your foodie life list is about to get a whole lot longer.

Inspired by Patricia Schultz's best-selling title, *1,000 Places to See Before You Die* (which is also distributed by Workman Publishing), Sheraton has rounded up 1,000 must-try dishes, restaurants, markets, cultural feasts, and even some relatively universal foods (such as bananas, olive oil, and whipped cream) that transcend regional categorization. Curated from cuisines around the globe, Sheraton has put them together in one large volume, along with details on historic and cultural context, tips on how to prepare or where to try a particular dish, and even several dozen recipes. It's a project that's been 10 years in the making—one that's as much a wonderful display of Sheraton's vast food knowledge (she's been writing about food for 60 years) as it is an ode to the world's sheer culinary diversity.

The ultimate gift for the food lover. In the same way that *1,000 Places to See Before You Die* reinvented the travel book, *1,000 Foods to Eat Before You Die* is a joyous, informative, dazzling, mouthwatering life list of the world's best food.

The book is organized not by country or type of food, but rather by the experience of eating itself. Sections guide the reader through "Street Food & Snacks," "Comfort Food," and "Sweets & Treats," among others. This structure encourages

serendipitous discovery, where a reader looking for a classic French pastry might stumble upon a traditional Indonesian dessert and become captivated. Sheraton's entries are more than just lists; they are miniature stories. She explains why a specific cheese from a remote village in Greece is worth seeking out, or how a particular noodle dish embodies the history of trade routes in Southeast Asia. This narrative approach transforms the book from a mere checklist into a compelling read about culture, history, and human connection through food.

Of course, a list of 1,000 items is bound to include some controversies. Some critics question the inclusion of ubiquitous items like the banana, arguing that it diminishes the exclusivity of the list. Others have noted a possible bias towards European and North American cuisines, though Sheraton defends her selections by pointing to the extensive research and personal travels that informed her choices. She emphasizes that the book is a personal, albeit expert, guide rather than a definitive, objective ranking. The goal, she states, is to inspire curiosity and appreciation, not to end debate.

Ultimately, *1,000 Foods to Eat Before You Die* serves as a passport to gastronomic adventure. It challenges the reader to look beyond their culinary comfort zone, whether that means seeking out a rare ingredient, attempting a complex recipe at home, or simply ordering something unfamiliar at a local restaurant. For Sheraton, the book is a culmination of a lifetime's passion for food, an invitation to savor the incredible diversity of flavors the world has to offer, one unforgettable bite at a time.

Questions 27-31

Do the following statements agree with the information given in Reading Passage 3?

In boxes 27-31 on your answer sheet, write

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

27. Mimi Sheraton is currently working as a restaurant critic for the *New York Times*.

28. The book *1,000 Foods to Eat Before You Die* was directly inspired by a popular

travel guide.

29. Sheraton's book includes recipes for every one of the 1,000 foods mentioned.

30. The book is organized according to the geographic origin of the foods.

31. Sheraton has been a food writer for six decades.

Questions 32-35

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

Write the correct letter in boxes 32-35 on your answer sheet.

32. The main purpose of the first paragraph is to

A. criticize people's boring eating habits.

B. provide specific examples of exotic foods.

C. explain the health benefits of a global diet.

D. introduce the book by highlighting its adventurous nature.

33. According to the passage, the book includes all of the following EXCEPT

A. historical background for certain dishes.

B. recommendations on where to find specific foods.

C. nutritional information for each food item.

D. a small number of full recipes.

34. How is the book's structure described?

A. It is organized by country to make it easy for travelers.

B. It categorizes foods by their main ingredient.

C. It is arranged by the experience of eating.

D. It follows an alphabetical order of dishes.

35. What is the author's stated goal for the book?

A. To create an objective and definitive ranking of world foods.

B. To settle debates about the best cuisines.

C. To inspire curiosity and appreciation for diverse foods.

D. To promote European and North American restaurants.

Questions 36-40

Complete the summary below.

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

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

Mimi Sheraton's book has been described as a 36 _____ for anyone who loves food. It is noted for its narrative approach, where each entry is like a mini 37 _____, explaining the cultural significance of a dish. While the book has faced some 38 _____, particularly over the inclusion of common items and a potential regional bias, Sheraton clarifies that the selections are based on her own 39 _____ and expert opinion. The ultimate aim of the book is to encourage readers to expand their 40 _____ and embark on a gastronomic adventure.

答案汇总

27. FALSE
28. TRUE
29. FALSE
30. FALSE
31. TRUE
32. D
33. C
34. C
35. C
36. passport
37. stories
38. controversies
39. personal travels
40. culinary comfort zone

十八、看看谁在说话（Look who was talking）

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

Look who was talking

Stephen Oppenheimer explores the origins of human speech

When did we start talking to each other and how long did it take us to become so good at it? One view of language development, held by linguists such as Noam Chomsky and anthropologists such as Richard Klein, is that language, specifically the spoken word, appeared suddenly among modern humans a mere 35,000 to 50,000 years ago and that the ability to speak words and use syntax was recently genetically hard-wired into our brains in a kind of language organ. This view of language is associated with the old idea that logical thought is dependent on words, a concept originating with Plato and much in vogue in the 19th century – that is, animals do not speak because they do not think. However, the abstract thought demonstrated in 20th-century experiments with chimpanzees and bonobos put this theory in doubt.

An alternative to the Chomskian theory is that language developed as a series of inventions. This was first suggested by the 18th-century philosopher Etienne Bonnot de Condillac. He argued that spoken language had developed out of gesture language (*langage d'action*) and that both were inventions arising initially from the simple association between action and object. The theory sees gesture language as arising originally among apes as sounds accompanying gestures, with these sounds gradually becoming coded into 'words' as the new skill drove its own evolution. Subsequently, coded words developed into deliberate, complex communication. Evolutionary pressures promoted the development of an anatomy geared to speech – the larynx, vocal muscles and a specific part of the brain immediately next to the part responsible for gestures.

The view that spoken language was ultimately a cultural invention like tool-making, which then drove the biological evolution of the brain and vocal apparatus, seems obvious when you think of the development of different languages. The unique features of a language such as French clearly do not result from any physiological aspect of being French but are the cultural possessions of the French-speaking community. Each language evolves from one generation to the next, constantly adapting itself to cope with the learning biases of each new set of young, immature minds.

Those anthropologists and fossil experts who accept that speech started early still

tend to think of language evolution as a gradual 2-million-year process, with our own modern human species (*Homo sapiens*) way out at the top. A major reason for this is the perception that brain growth among humans was gradual over a similar period. Several recent changes in the fossil evidence, though, bring this into doubt.

The first of these is a re-dating of soil layers from the famous Olduvai Gorge in East Africa, where many key fossil remains have been found. A number of big-brained human species appear to be much older than previously thought, with several specimens dating from over a million years ago. When brain sizes for all available skulls are plotted against time using the revised dates, the result is startling: the bulk of increases in brain size was over by around 1.2 million years ago, with some African human species having brain volumes easily within the modern human range by that time.

So, we have the paradox that over the period when our brain was growing most rapidly, our material cultural development, as measured by stone tools, advanced only marginally; then, over a million years later, when the development of anatomically modern humans finally started to accelerate, artistically and technologically, our brains were actually getting smaller.

The additional piece of evidence that makes this paradox all the more significant is that brain size did not just leap between human species in a direct line of ascent towards ourselves. Over the period from 2.5 to 1.5 million years ago, brains were growing more rapidly than at any time since, within all the different human species. The logical conclusion is that there must have been a unique new behaviour driving brain growth, shared between all species of humans.

So, what was driving rapid brain growth right at the beginning, 2.5 million years ago? The answer may have been staring us in the face. Namely, that not only early humans but their ancestors had started the trend in the very useful skill of verbal communication. Around 2.5 million years ago, the weather took a decided turn for the worse, becoming more variable and colder and drier. The search for food became more taxing, and there would have been a real need to communicate more effectively and cope with the worsening environment in a co-operative way. The near maximum in brain size achieved by 1.2 million years ago indicates that those early ancestors could already have been talking perfectly well. Our brain, which had developed to manipulate and organise complex symbolic aspects of speech internally, could now be turned to a variety of other tasks.

So what happened in the million-year gap after that? Why did we take so long to get to the moon? Cultural evolution aided by communication and teaching is a cumulative interactive process. If each new generation invented just one new skill or

idea and passed it on with the rest to their children and cousins, you could predict exactly the same curve of cultural advance as we see from the archaeological and historical record – first very slow, then faster and faster.

Questions 27-32

Look at the following statements (Questions 27-32) and the list of people below.

Match each statement with the correct person, A, B, or C.

Write the correct letter, A, B, or C, in boxes 27-32 on your answer sheet.

NB You may use any letter more than once.

27. The development of human speech can be traced back to apes.

28. Animal research is essential for understanding the development of human speech.

29. Language emerged relatively late in human evolution.

30. Non-verbal language was essential in the development of verbal language.

31. The development of different languages is related more to environmental than biological factors.

32. The ability to think rationally is linked to the ability to speak.

List of People

A Chomsky

B Condillac

C neither Chomsky nor Condillac

Questions 33-37

Do the following statements agree with the views of the writer in Reading Passage 3?

In boxes 33-37 on your answer sheet, write

YES if the statement agrees with the views of the writer

NO if the statement contradicts the views of the writer

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

33. Anthropologists now agree on the point in time when speech began.

34. The rate of development of ancient human technology is directly related to brain size.

35. The period when the brain was growing most quickly has now been identified.

36. The development of agriculture influenced language development.

37. Cultural development has been seen to follow a particular pattern throughout human history.

Questions 38-40

Look at the following statements (Questions 38-40) and the list of dates below.

Match each statement with the correct date, A, B, C or D.

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

NB You may use any letter more than once.

38. Revised fossil evidence indicates most brain growth was complete.

39. The writer suggests that language development was complete.

40. An external change may have influenced language development.

List of Dates

A 2.5 million years ago

B 1.5 million years ago

C 1.2 million years ago

D 0.5 million years ago

答案汇总

27. B

28. C

29. A

30. B

31. C

32. A

33. NO
34. NO
35. YES
36. NOT GIVEN
37. YES
38. C
39. C
40. A

十九、课堂实践学习（Practical Learning in the Classroom）

A teacher describes a case study involving middle school students and traditional earthen architecture

The town of Zuni, where I taught art, was surrounded by adobe construction, new and old. Behind our main high school building there was a one-room adobe structure which was once used for teaching. Now it served as a place where old furniture could be kept. I sent my class home with the oral history assignment to ask their family, friends, and neighbors questions to find out about that building. From their research we compiled a sketchy history: it began as a kindergarten classroom; it later became an art classroom; now it was full of broken desks.

The building's design kept it relatively warm in the winter, even without heating, due to its broad south face, and it stayed cool in the summer due to its spacious, ventilated attic and massive earthen walls. Because of this, my students agreed it was worth preserving and were enthusiastic about helping. Preservationist Shalie Gasper arrived in the fall to help with an assessment of the building's needs. She recommended replacing the stucco that encased the original adobe walls with a traditional mud plaster. She showed us where to find local supplies of sand and clay soil for the plaster mix. We began work on the stucco removal in late fall. The next spring the students were ready to replaster. To teach the traditional skills, Gasper and other local specialists joined us. They gave my class three full mornings of intensive workshops on history and preservation as well as mud-plastering technique, and the building got a new coat of traditional mud plaster.

Small design-and-build projects such as this can be seen through to the finish when

working with earth in the art curriculum. A simple landscape feature such as a wall, entryway, or arch can draw students into important aspects of design that involve the structure's interaction with people, the surrounding landscape, and natural elements. The same project may provide an opportunity to focus on the chemistry of soil or the structural dynamics of construction. Design goals might guide students to involve traditional forms, consider formal aspects, or integrate math skills of measuring and estimating.

Questions 27-31

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

Write your answers in boxes 27-31 on your answer sheet.

27. What does the American Institute of Architects promote, according to the passage?

A The appreciation of architecture

B The use of modern construction materials

C The practice of designing architectural structures

D The history of traditional earthen architecture

28. What problem regarding teaching architecture is mentioned in the passage?

A Students find it difficult to appreciate traditional designs.

B Modern building requirements can prevent students from constructing their designs.

C There is a shortage of local specialists to teach traditional skills.

D Students lack the physical strength needed for construction.

29. According to the author, what is the most significant benefit of this type of project?

A A personal connection to the final outcome

B Learning about the chemistry of soil

C Gaining an understanding of local history

D Developing skills in measuring and estimating

30. In the last paragraph, the author mentions a simple landscape feature in order

to

A explain why students prefer working with earth.

B outline the various skills involved in one project.

C argue that design projects should be small.

D compare traditional and modern construction methods.

31. What does the author suggest about large earthen buildings?

A They are more sustainable than modern buildings.

B They are too complex for students to work on.

C They are appreciated for their historic value only.

D They appeal to different people for different reasons.

Questions 32-36

Complete the summary using the list of words, A-H, below.

Write the correct letter, A-H, in boxes 32-36 on your answer sheet.

The Zuni earthen architecture project

The students in Zuni chose to renovate an old building which was being used for 32 __ . They came to an agreement that the building was worthy of rehabilitation based on its functional 33 __ . At the beginning of the project, students were given the task to discover the history of the building through interviews with local residents.

Through the course of the project, they learned where to locate 34 __ for the project. They also worked closely with a number of 35 __ on each step of the project. During the project, students were also given 36 __ to build useful skills.

List of Words

A experts

B location

C design

D storage

E students

F resources

G training

H businesses

Questions 37-40

Do the following statements agree with the information given in Reading Passage 3?

In boxes 37-40 on your answer sheet, write:

YES if the statement agrees with the claims of the writer

NO if the statement contradicts the claims of the writer

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

37. The cost of traditional architectural materials is a disadvantage. __

38. Earthen architecture can be easily built in all parts of the United States. __

39. Working on an earthen architecture project can have physical benefits for students. __

40. The author believes that earthen architecture projects are most suitable for middle school students. __

Answers

Question 27: C

Question 28: B

Question 29: A

Question 30: B

Question 31: D

Question 32: D

Question 33: C

Question 34: F

Question 35: A

Question 36: G

Question 37: NO

Question 38: NOT GIVEN

Question 39: YES

Question 40: NOT GIVEN

二十、欺骗的艺术（The Art of Deception）

A Forty years ago, the research psychologist Dr. Paul Ekman was addressing a group of young psychiatrists in training when he was asked a question, the answer to which has kept him busy ever since. Suppose the group wanted to know: a particular patient swears they are telling the truth. They look and sound sincere. So here is the question: is there any way you can be sure they are telling the truth? Ekman did not know the answer then but wanted to find out.

B As part of his research, he had already filmed a series of 12-minute interviews with psychiatric patients. In a subsequent conversation, one of the patients said that he had lied to him. So, Ekman sat and looked at the film but saw nothing noteworthy. Then he slowed it down and looked again. Then he slowed it even further. And suddenly, there, across just two frames of the film, he saw it: an intense expression of extreme anguish. It lasted less than a 15th of a second, but once he had spotted the first expression, he soon found three more examples in that same interview. He termed this discovery "micro-expression": very rapid intense demonstrations of emotion that the subject intended to be concealed.

C Over the course of the next four decades, Ekman successfully demonstrated a proposition first suggested by Charles Darwin: that the ways in which we express disgust, contempt, fear, surprise, happiness, and sadness are universal. The facial muscles triggered by those seven basic emotions are, he has shown, essentially standard, regardless of language and culture, from the US to Japan and Brazil to Papua New Guinea. What is more, expressions of emotion are impossible to suppress and, particularly when we are lying, micro-expressions of powerfully felt emotions will inevitably flit across our face before we get the chance to stop them.

D Fortunately for liars, most people will fail to spot these fleeting signals of inner torment. Of the 15,000 Ekman has tested, only 50 people, whom he calls "naturals," have been able to do it. But given a little more training, Ekman says, almost anyone can develop the skill. He should know, since these tests were completed in the mid-1980s and the first publication of his research, he has been called in by the FBI and CIA (among countless more law enforcement and other agencies around the world), not just to solve cases, but to teach them how to use his techniques for themselves. He has held workshops for defense and prosecution lawyers, health professionals, even jealous spouses, all of them wanting to know exactly when someone is not being 100 per cent candid.

E Most recently, Ekman's research has featured in a new television series about the exploits of the fictional Dr. Cal Lightman, a scientist who studies involuntary body language to discover not only if you are lying but why you might have been motivated to do so. According to the publicity blurb, Lightman is a human lie detector, even more accurate than a polygraph test. Ekman concedes he was skeptical when the producer first approached him with the idea of turning his life's work into a TV series, and initially would have stopped the project if he could. In particular, he was fearful that the show would exaggerate the effectiveness of his techniques and create the quite inaccurate impression among audiences that criminals could no longer hope to get away with lying. In the worst-case scenario, he was concerned about unfair convictions, that one day someone not properly trained in his techniques might be sitting on a jury and wrongly find someone guilty of a crime simply on the basis of a television programme.

F In the end, though, he was won over because the series is unusual in several respects. It is the first time, as far as Ekman is aware, that a commercial TV drama has been based on the work of just one scientist. That scientist is also deeply involved in the project, talking through plot ideas and checking five successive drafts of each script to ensure details are correct. He was also impressed with the producer's manifestly serious and well-intentioned reasons for making the programme. Now that the first series has been completed, he believes probably 80-90 per cent of the show is based on fact and that's good enough for what it is. After all, a drama, not a documentary.

G Ekman, incidentally, professes to have been a terrible liar ever since he was a small boy and observes that the ability to detect a lie and the ability to lie successfully are completely unrelated. He has been asked by people running for high office if he could teach them to become more credible with the public but has always refused to use his skills in that way on ethical grounds. He also insists that there are various kinds of lies. A "true" lie can be identified by having two essential characteristics: there must be a deliberate intent to mislead and there must be no notification that this is what is occurring. This means that an actor or a poker player isn't a true liar. They are supposed to deceive you, it's part of the game, and the same is true of flattery. He prefers to focus on the kinds of lies where the liar would be in grave trouble if they were found out and where the target would feel properly aggrieved if they knew.

Questions 27-31

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

Write the correct letter in boxes 27-31 on your answer sheet.

27.According to the writer, Ekman became interested in lying after a question from

A peers

B patients

C students

D teachers

28.The writer refers to the 12-minute interviews in order to...

A illustrate how frequently patients lie

B describe the origins of Ekman's theories

C compare Ekman's research to previous studies

D show how patients' behaviour is affected by filming

29.What is the writer's point in the third paragraph?

A micro-expressions are common to all people

B recent research has refuted an old idea

C with practice we can learn to control our micro-expressions

D human society is too complex to allow for generalisations

30.What are we told about Ekman's conclusions from his tests?

A It's natural for people to lie

B Few untrained people can detect lies

C most liars suffer from periods of depression

D all of his subjects were trained to identify micro-expressions

31.At what point does the writer make about Ekman's techniques in the fourth paragraph?

A They take decades to teach

B they have been in great demand

C They have aroused the suspicions of some agencies

D they can be used by a limited range of occupations

Questions 32-36

Complete the summary using the list of words, A-H below.

Write the correct letter, A-H, in boxes 32-36 on your answer sheet.

A consequences

B crimes

C False beliefs

D motives

E justice

F accuracy

G acting

H research

I ratings

The television series based on Ekman's work

A new TV series based on Ekman's work features a hero named Lightman, who detects lies. Initially, Ekman was unenthusiastic about the TV project because he feared the possibility of encouraging viewers 32..... For example, he was worried that one day the programme could result in 33..... Not being carried out. Ultimately though, he has given the show his blessing because he is not aware of any other comparable programme based on a single person's 34..... The 35..... of the show's producer have been another pleasant surprise and, considering the genre of the programme, Ekman is happy with the show's overall 36.....

Questions 37-40

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

In boxes 37-40 on your answer sheet, write:

TRUE if the statement is true

FALSE if the statement is false

NOT GIVEN if the information is not given in the passage

37.Ekman regrets the lies he told as a child. .....

38.People who are good at lying tend to be good at detecting lies. .....

39.Ekman has worked with poker players to help them lie more convincingly. .....

40.Ekman is more interested in the types of lies with serious consequences. .....

答案

Question 27: C

Question 28: B

Question 29: A

Question 30: B

Question 31: B

Question 32: C (False beliefs)

Question 33: E (justice)

Question 34: H (research)

Question 35: D (motives)

Question 36: F (accuracy)

Question 37: NOT GIVEN

Question 38: FALSE

Question 39: NOT GIVEN

Question 40: TRUE

二十一、什么是社会史？（What is social history?）

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

What is social history?

Ever since its elevation to the status of an academic discipline, history has been very largely concerned with problems of its own making. These may be gaps which the young researcher is advised by supervisors to fill; or established views which he or she is encouraged to challenge. In either case, the need for the researcher to provide new insights in order to gain professional advancement often counts for more than the intrinsic interest of the topic.

Social history is quite different. It touches on, and arguably helps to focus, major issues of public debate. It mobilises popular enthusiasm and engages popular

passions. It prides itself on being concerned with everyday things rather than sensational events and is directed against the 'Great Man' theories that originally characterised history, and the tedious focus on bureaucratic issues that subsequently dominated the 1920s and 30s. This is also reflected in the way it is taught, through the adoption of multi-disciplinary perspectives rather than a narrow historical interpretation.

Social history emerged, both as a popular enthusiasm and as a scholarly practice, from the cultural revolution of the 1960s in North America and Europe, and reproduces its leading inspirations. The spirit of social history was pre-eminently a modernising one, as reflected in its choice of subject matter. Whereas traditional history had focused on the 12th to 17th centuries, social history was apt to make its historical homeland in the 19th century. Latterly, it has even begun to extend its inquiry up to contemporary events and movements.

The subject matter favoured by the new social history, with its move away from the aristocracy and the establishment, corresponds to other cultural manifestations of the 1960s, such as New Wave British cinema, with its working-class protagonists, or 'Pop art', with its use of everyday artefacts. Similarly, the anti-institutional bias of the new social history—the renewed determination to write the history of 'ordinary' people as against that of statecraft—could be said to echo a much more widespread collapse of social deference, and a questioning of authority figures of all kinds.

Another major 1960s influence on the new social history—very different in its origins and effects—was the 'nostalgia industry', which focused on the sale of memorabilia and artefacts from recent history. This emerged as a kind of negative counterpart to the otherwise dominant modernisation of the decade and reflected a disenchantment, no less apparent on the Left of the political spectrum than on the Right, with post-war social change.

Industrial archaeology, an invention of the 1960s, elevated disused factories and mills to the status of national monuments. Following in the same track, property restorers turned houses built for 19th-century factory workers—once emblems of poverty, overcrowding, and ill-health—into picturesque residences. In another sphere, one could point to the proliferation of folk clubs and the discovery of industrial folk songs, prefiguring one of the major themes of the new social history—the dignity of labour.

So far as historical work was concerned, by the 1970s the sense of disenchantment had crystallised into an idealised view of the past, fostering a nostalgic regard for disappearing communities. The restoration of vanished components of 'the world we have lost' became a major impetus in historical writing and research. The dignity of

ordinary people could be said to be the unifying theme of this line of historical inquiry and retrieval—a celebration of everyday life, even, perhaps especially, when it involved hardship and suffering.

Despite the novelty of its subject matter, social history reproduces many of the characteristic biases of its predecessors. Social historians are good at amassing details on household artefacts, budgets, daily purchases, but at times the evidence is assumed to speak for itself, and the simple reproduction of fact masquerades as explanation. The facts accumulated may leave no conceptual space for the great absences, for the many areas where the documentary record is silent.

The indulgence which social historians extend towards their subjects, and the desire to establish 'empathy'—seeing the past in terms of its own values rather than those of today—can also serve to flatter our self-esteem, making history a field in which, at no great cost to ourselves, we can demonstrate our enlarged sympathies and benevolence. Recognising our kinship to people in the past, and tracing, or discovering, their likeness to ourselves, we are flattered in the belief that underneath we are all lovable; eccentric perhaps and even absurd, but large-hearted, generous and frank. This sense of integration with the past can thus serve as a comfortable alternative to critical awareness and self-questioning, allowing us to dignify the present by illegitimate association with the past.

Social history, if it is to fulfil its subversive potential, needs to be a great deal more disturbing. If it is to celebrate a common humanity, and to bring past and present closer together, far more weight needs to be given to the effects of insecurities and emergencies—the fears that shadow the growing up of children, the oppositions we encounter during our lives—experiences which may be hard for an individual to categorise but which nevertheless have a significance which goes beyond that individual.

Perhaps too we might recognise that there is a profound condescension in the notion of 'ordinary people'—that unified totality in which social historians are apt to deal. Implicitly it is a category from which we tend to exclude ourselves, although in fact we are exceptional only by our privilege of hindsight. 'There are ... no masses,' Raymond Williams wrote, 'only ways of seeing people as masses.' It is perhaps time for historians to scrutinise the term 'ordinary people' in the same way.

Questions 27-31

Complete the summary using the list of words, A-H, below.

Write the correct letter, A-H, in boxes 27-31 on your answer sheet.

How is social history different from historical study?

Since it became an academic discipline, historical study has been too concerned with a search for 27 _____ by researchers who want to develop their careers. Social history, however, is more closely related to the 28 _____ of the public. It avoids history's traditional focus on 29 _____ , and its later concentration on 30 _____ , and it is also different from traditional history in its teaching 31 _____ , which is derived from different academic subjects.

A methodology

B needs

C originality

D important people

E accuracy

F interests and feelings

G explanation

H organisational matters

Questions 32-35

Do the following statements agree with the claims of the writer in Reading Passage 3?

In boxes 32-35 on your answer sheet, write

YES if the statement agrees with the claims of the writer

NO if the statement contradicts the claims of the writer

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

32. The rise of social history led to the cultural revolution of the 1960s.

33. Social historians tend to study a later period of history than traditional historians did.

34. British cinema in the 1960s lacked any working-class characters.

35. The loss of respect for authority in the 1960s was a leading cause of social problems.

Questions 36-40

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

Write the correct letter in boxes 36-40 on your answer sheet.

36. What point is made about the 'nostalgia industry'?

A Its products were not always genuine historical items.

B It led to the abandonment of modernisation.

C Its origins were political rather than industrial.

D It opposed the dominant trend of the time.

37. In the sixth paragraph, the writer makes the point that in the 1960s

A construction workers gained greater status.

B there was a new interest in traditional industrial buildings.

C architects applied industrial techniques to home design.

D many older homes were unsuitable as places of residence.

38. By the 1970s, historians had come to believe that

A researchers should focus on the immediate past.

B modern life is not necessarily an improvement on the past.

C they should not overemphasise the difficulties of life in the past.

D there was a need for more 'ordinary' people to do research into the past.

39. One problem related to the use of detail by social historians is that

A the wrong types of facts are collected.

B some information may be hard to categorise.

C more important issues may be ignored.

D some of the data may be incorrect.

40. The writer recommends that to be effective, social history must

A explore the negative emotions that are part of daily life.

B build on what has already been established by historians.

C try to provide an objective view of the recent past.

D offer solutions to the pressing problems of our day.

答案汇总

27. C
28. F
29. D
30. H
31. A
32. NO
33. YES
34. NO
35. NOT GIVEN
36. D
37. B
38. B
39. C
40. A

二十二、水下运动（Movement Underwater）

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

Movement Underwater

A Self-propelled motion is a fundamental ability in many organisms. From the beating flagella of tiny plankton keeping afloat near the ocean surface to the playful perfection of dolphins surfing the bow wave of a ship, marine creatures have adopted a huge variety of styles, speeds, and methods of movement. Each species has its own particular need for the evolutionary developments that have taken place, but the

basic requirements are the same – finding food, avoiding predation, seeking a mate or a safe place to have young, or migrating to an area with more favourable conditions.

B The particular physical properties of water that most affect movement are density, viscosity (stickiness), and buoyancy. Seawater is about 800 times denser than air and nearly 100 times as viscous. Consequently, there is much more resistance to movement than on land, as anyone will know who has ever tried to wade through waist-deep water. However, with density comes much greater buoyancy, so that organisms need to spend relatively little energy to stay afloat. As they move through the ocean environment, organisms seek to make wave motion, currents, and natural turbulence work to their advantage, not to their detriment.

C Most fishes have swim bladders to help them offset the density of their bodies and so maintain neutral buoyancy with minimal effort. These small, gas-filled chambers contain specialised networks of blood vessels that can add or remove gases such as oxygen and carbon dioxide. The ability to remain indefinitely at a constant depth without expending energy is especially important for slow-moving fishes that seek food in the shallows, or for those that hunt and scavenge in kelp forests. Active swimmers, such as mackerel, skipjacks, and sharks, do not have swim bladders because they need to change depth more rapidly than they could regulate the gas content. These fishes must swim forever or they will sink.

D Many animals, especially the tiny zooplankton, have taken to a life of simply drifting near the surface, contentedly feeding on the microscopic phytoplankton and bacteria floating there. Although life among the plankton might seem easy, there is in fact a remarkable range of movement. Some tiny plankton only 1-2 mm in length actually travel long distances each day. Species that live below the level where sunlight reaches nightly swim hundreds of metres up to the surface to feed in the relative safety of darkness. At dawn, they sink back down in an effort to escape predators – a double journey equivalent to a person swimming 700 km a day.

E It has taken marine creatures millions of years of evolution to overcome the chief deterrent to motion through a dense medium such as water – that of drag resistance. Swimming efficiency has been achieved by minimising the three types of drag created by friction, turbulence, and body form. To reduce surface friction, the body must be smooth and rounded. In addition, the scales of most fishes are coated with slime to lubricate their passage through water. To reduce the turbulent drag created as water flows around the moving shape, a rounded front end and tapered back end are required. To reduce form drag, the cross-sectional area of the body should be minimal – a pencil shape would be ideal. The combined shape, taking into account all three types of drag, is the streamlined torpedo form of a tuna, the fastest-swimming

of all fishes.

F Speed is only one of three important aspects of swimming ability. Tuna, swordfish, and mackerel all specialise in fast, steady cruising, but there are many other fishes for whom sustained speed is less important, such as the barracuda. This formidable predator specialises in swift acceleration, and has a far higher success rate for its attacks than its steady-cruising cousins. The freshwater pike, which lurks in the shadows until its quarry is within striking distance and then lunges with great rapidity, achieves a remarkable 70-80 percent success rate. The third specialisation is manoeuvrability, best demonstrated by the butterfly fishes. These have disk-shaped bodies that permit abrupt changes of track. Many fishes are generalists, being at least partly proficient in all three modes of movement.

G Almost all fishes swim by undulation. Strong W-shaped muscles along the side of the body progressively contract and relax in sequence, from head to tail and from side to side, creating a travelling horizontal wave. The body is thrown into a series of curves that press sideways and back against the water, producing a forward thrust. The narrow, elongated forms of eels and sea snakes allow easy undulation along their full length. In contrast, the more stubby and inflexible bodies of armour-plated trunkfish use only the swish of their short tail fins to move themselves through the water. Most other fishes combine elements of both methods, coordinating powerful strokes of the tail fins with subtle body undulations.

H A fish's fins also play a vital and versatile role. The vertically oriented dorsal and ventral fins on the back and belly control sideways motion, while up-and-down motion is controlled by the pectoral and pelvic fins on the fish's sides. Whereas the shape of the tail fin relates directly to speed – crescent-moon-shaped for fast cruising, broad and flat for acceleration – the style and arrangement of the other fins are crucial for manoeuvrability. Puffer fishes scull with tiny, oscillating pectoral fins, while butterfly fishes undulate their broad dorsal and ventral fins, twisting and turning with great precision through intricate coral reefs.

Questions 27-31

Reading Passage 3 has eight paragraphs, A-H.

Which paragraph contains the following information?

Write the correct letter, A-H, in boxes 27-31 on your answer sheet.

NB You may use any letter more than once.

27. a strategy to avoid being attacked
28. how fish are able to keep afloat naturally
29. the physical process by which fish propel themselves ahead
30. a list of reasons why different creatures move from one place to another
31. how the medium of water both restricts and aids movement

Questions 32-35

Complete the table below.

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

Write your answers in boxes 32-35 on your answer sheet.

Specialisation	Specialised ability	Example fish species
Ability to maintain the same 32 _____ over long distances	Swordfish	
Rapid 33 _____	Barracuda	
Sudden attack on prey following period of lying in wait	34 _____	
Rapid changes of direction	35 _____	

Questions 36-40

Complete the diagram below.

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

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

#Mobility, stability and combating different types of drag resistance

(Diagram: body shape – rounded front, tapered rear to reduce 36 _____ drag)

(Fin functions:

- dorsal/ventral fins control 38 _____ motion
- pectoral/pelvic fins control 37 _____ motion
- fin style and arrangement crucial for 39 _____

To reduce form drag, cross-sectional body area minimal → decrease 40 _____ drag)

答案汇总

27. D
28. C
29. G
30. A
31. B
32. speed
33. acceleration
34. freshwater pike (或 pike)
35. butterfly fishes
36. turbulent
37. up-and-down
38. sideways
39. manoeuvrability
40. form

二十三、大脑改造（Brain Makeover）

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

Brain Makeover

A Have you ever longed for a dose of medicine for your mind? Or some 'gizmo' to fire an electric current through the prefrontal cortex to kick-start your brain into action, making you just that bit brighter? Well, you may not have to long much longer. The over-the-counter eureka pill and the thinking-cap may soon be reality, and whether and when we should be allowed to use them is the next big conundrum of medical ethics.

B Huge advances in treating mental diseases mean that techniques for improving brain performance could soon be applied, on demand, to healthy brains, in an entirely new branch of elective medicine. So-called 'cosmetic neurology' could be used not merely to improve thought processes, but also to alter other aspects of brain function such as reflexes, attention and memory, to accelerate learning and sharpen reactions. Students could take a 'cognitive enhancer' to ensure that they retain more information; police facing emergencies could speed up their reactions; the novelist struggling with writer's block could clear the blockage with a shot of artificial brainpower.

C This may sound fanciful, but what plastic surgery can already achieve for the face and body, cosmetic neurology could one day do for the brain. Techniques for improving brain response are being developed for the most laudable medical reasons, to fight serious neurological diseases such as Parkinson's or Alzheimer's diseases, in just the same way that plastic surgery was pioneered to treat the disfigured victims of warfare. But like plastic surgery, if people want cosmetic neurology enough, whatever the ethical qualms involved, doctors will provide it, at a price: Botox for the brain, ironing out the mind-wrinkles.

D The science of mind improvement is developing at an incredible rate. Already, some 40 potential cognitive enhancers are in clinical development in the US. Dr Anjan Chatterjee of the University of Pennsylvania, writing in the journal *Neurology*, gave warning that cosmetic neurology is on the near horizon: 'This is coming, and we need to know it's coming.'

E A recent study of pilots using flight simulators found that those given a dose of donepezil, a medication used for treating Alzheimer's disease, performed markedly better in emergency situations. Another recent test, by the US National Institute of Neurological Disorders and Stroke, discovered that sending a small electrical impulse through a person's forehead could boost verbal skills by up to 20 per cent. Amphetamines used on stroke patients might theoretically be developed for healthy

individuals who want to boost their learning of motor skills during, say, a piano lesson. Advances in brain imaging, molecular biology and genetics mean that scientists are developing their understanding of the way the brain works, and thus increasing the potential to develop drugs to improve its performance. No amount of drugs or electric stimulation will turn you into Einstein; a pill cannot help you to recall something you never knew in the first place. The danger, however, is that one would then recollect lots of things best left unremembered. There is a good reason why we forget some things.

F The ethical implications of brain-sharpening drugs are, of course, enormous. If pilots are safer on certain drugs should they be required to take them? If students can improve exam performance with a dose of this or a zap of that, the test surely becomes unfair. Mind medication is sure to be expensive, so will the rich be able to buy better brains? Medicine is there to improve the lives of those who are sick, but should medical knowledge also be used to enhance the lives of people who are perfectly healthy? Millions have seized the chance through cosmetic surgery to become more conventionally beautiful; how many more would leap at the opportunity to become a little bit brainier?

G Many of us use a chemical brain enhancer every day. Coffee, after all, has been used as a pick-me-up for at least four centuries. Perhaps cosmetic neurology will be no more than this. Yet the imminent arrival of the clever pill must force the medical profession to address once again the distinction between curing the ill and improving the well, between patient and consumer. It is one thing to change the outside of one's head for the sake of vanity, but another to alter the inside for personal advantage.

速记版

一、流动沙丘（Living Dunes）

【核心逻辑链】

沙丘是动态自然结构，可生长、移动、吞噬城镇和农田。Bagnold 通过实验区分两种基本沙丘：新月形沙丘（barchan，最常见，移动速度快）和线性沙丘（longitudinal/sief，更长，有山脊）。沙丘形成需三个条件：大量松散沙、风、障碍物。沙粒通过风运移，遇障碍堆积，重复循环使沙丘向前移动。风力和风向决定沙丘形状和大小，沙丘可产生新沙丘。某些沙丘会“唱歌”，Marco Polo 曾认为是邪灵作祟。Douady 实验室研究发现：唱歌沙粒必须大小相近、形状圆润，颗粒尺寸决定音调高低，唱歌沙粒表面有矿物涂层（硅、铁、锰），但涂层作用尚不明确。

【Questions 27-33 段落标题配对】

27. iv (依据：A 段提到沙丘可吞没城镇、摧毁农作物和工厂，对工业和农业构成威胁)

28. x (依据：B 段明确说新月形沙丘是最常见的沙丘类型)

29. iii (依据：C 段指出沙丘形成需要大量松散沙、风、障碍物三个具体条件)

30. vii (依据：D 段描述沙粒不断被吹上迎风面、滑落背风面的重复循环过程)

31. i (依据：E 段说明风力和风向决定沙丘形状，沙丘可生长、变形并产生新沙丘)

32. v (依据：F 段提到 Marco Polo 将沙漠沙丘的声音归因于邪灵，现被科学解释)

33. ix (依据：G 段描述将沙带回实验室，在人工通道中重现沙丘唱歌现象)

【Questions 34-36 句子填空】

34. linear (依据：B 段线性沙丘有山脊，可延伸超 100 英里)

35. obstacle (依据：C 段障碍物使沙粒失去动量并沉降)

36. acoustic (依据：F 段 Douady 研究这一声学现象的机制)

【Questions 37-40 摘要填空】

37. barchan (依据：B 段新月形沙丘被称为 barchan)

38. shape (依据：G 段唱歌的沙粒必须形状圆润)

39. tone (依据：G 段颗粒尺寸决定声音的音调)

40. minerals (依据：G 段涂层由硅、铁、锰等多种矿物组成)

二、风险认知与决策（Risk taking）

【核心逻辑链】

文章探讨个人、组织及社会层面如何感知与应对风险。风险无处不在，个人与集体常在收益与危险间权衡。当科学、技术、数学可澄清风险时，研究群体有责任清晰完整地呈现信息，但公众往往忽视证据——即便吸烟等高风险证据明确，许多人仍否认、质疑或明知故犯。风险感知比事实本身更重要：多数人对 60%降雨概率或流感疫苗微小风险能正确反应，但少数人恐惧过度，走向极端（如闭门不出）。K.C. Cole 指出，大脑对"避免损失"与"获取收益"的风险计算尺度不同：人们为避免损失愿冒大险（如冲入火场救宠物），却因可能收益而不愿冒险（如放弃不满足但舒适的工作去追求理想职业），这种"维持现状"心理构成风险评估的高门槛。组织面临同样困境：Intel 因日本低价芯片冲击被迫放弃核心业务，Grove 指出外部变化期充满危险，管理者易忽视或误读证据，因过度关注"冒险可能带来的收益"而非"不冒险可能造成的灾难性损失"。国家层面亦然：环保组织通过新技术确定"杠杆点"后更愿投入资源防止环境恶化；政府领导人却因眼前紧迫需求优先于未来收益，忽视教育投资不足的风险。作者自认乐观主义者，但强调无论性格如何，科学工程群体的社会责任是：谨慎衡量、诚实呈

现任何行动或决策的风险水平。

【Q27-30 句子配对】

27. E（K.C. Cole 指出，对人们而言避免损失似乎比获得收益更重要。原文 D 段：People will risk a lot to prevent a loss... they will usually risk very little if the only perceived outcome is a possible gain.）

28. F（根据 Andrew S. Grove 的说法，公司忽视外部发生的变化可能非常危险。原文 E 段：Such a period of change in the outside world is filled with danger, Grove notes, precisely because it is so easy for executives to try to disregard it.）

29. D（Reid J. Lifset 认为环保机构可以从近期关于最有效解决方案的研究中获益。原文 F 段：newly developed techniques for clarifying which critical decision would have the highest pay-offs for the environment. Once these 'leverage points'... are located, many environmental organizations will be willing to risk the resources needed.）

30. A（作者建议政府领导人需要更多关注未来规划。原文 G 段：Better consideration and decision making for what lies ahead is essential.）

【Q31-39 段落信息匹配】

31. B（帮助我们理解风险的研究领域。原文 B 段：those risks can be clarified, at least in part, by science, technology or mathematics.）

32. F（可能使世界受益的关键行动。原文 F 段：critical decision would have the highest pay-offs for the environment... prevent further deterioration.）

33. C（多数公众反应一致的统计预测例子。原文 C 段：Hearing the prediction of 60% chance of rain, or recognizing the minuscule likelihood of becoming ill from a flu shot, most people understand the right responses.）

34. A（风险出现的多种情境。原文 A 段：Risks arise in sports, in business, in personal relationships; they are present in the laboratory, in political calculations, everywhere.）

35. B（提及已被证明非常危险的习惯。原文 B 段：Even when the evidence of high risk is clear - about smoking, for instance.）

36. E（提及推动变革的市场力量。原文 E 段：The business environment for Intel and its competitors was transformed by a flood of low-cost memory chips from Japan.）

37. H（作者目前对风险的态度。原文 H 段：I confess to being an optimist. My glass

is generally half full.）

38. D（一些个人避免职业变动的原因。原文 D 段：many people won't even risk pursuing an exciting job, if the current job, though unfulfilling, remains comfortable. That psychological mechanism, a desire to maintain the status quo.）

39. C（一些人如何对风险信息反应过度。原文 C 段：some, fearfully but irrationally, go to the extreme and stay at home and avoid all contact with other people.）

【Q40 主旨题】

40. B（文章结尾作者得出结论：专家应向公众诚实说明风险。原文 H 段：everyone in our scientific and engineering community has a social responsibility: measure with care and portray with honesty the level of risk involved in any action or decision.）

三、艺术与艺术家（Art and Artists）

【核心逻辑链】

文章探讨艺术欣赏的本质与误区，强调不存在大写"艺术"（Art），只有艺术家及其活动。欣赏艺术没有错误理由（如乡村画作唤起乡愁），但存在错误的厌恶理由（如因不喜欢登山而拒绝高山画作）。画面之美不在于题材之美——鲁本斯画孩子、丢勒画母亲同样伟大，但美的标准因人而异。画面表现亦然：有人喜欢容易理解的表情（如雷尼的基督像），但中世纪画家同样真诚，只是表现语言不同，需观者学习理解；作者将艺术表达与语言偏好类比，有人喜欢直白，有人喜欢含蓄。对于"画面真实"的追求，观众常因现代艺术变形而批评，但丢勒精确描绘的野兔备受赞誉，而伦勃朗寥寥数笔勾勒的大象同样传神，两者技法不同却各有价值。我们习惯认为自然必须像我们熟悉的图画，但摄影证明马奔跑的经典画法其实错误，然而当画家改用真实画法，反遭抱怨。艺术作品本为特定场合和目的而作，非为展示为"艺术"。艺术家真正在意的是"对"（right）——一种难以言喻的和谐。品味虽无法争论，但可以培养。欣赏艺术需要新鲜心灵，摒弃陈词滥调，以发现之旅的眼光观看作品。

【Q27-30 段落信息匹配】

27.F（将人们对语言和艺术的偏好进行比较。原文 F 段：Just as some of us would rather people use few words and gestures and leave something to be guessed, so some of us would rather look at paintings or sculptures which are open to interpretation.）

28.H（人们为何误解某种动物的运动方式。原文 H 段：For generations, paintings showed horses galloping with outstretched legs... photography proved that horses simply do not gallop in that way.）

29.G（对比两幅画作使用的技法。原文 G 段：Dürer's watercolour study of a hare... But who would say that Rembrandt's drawing of an elephant is necessarily less good because it shows fewer details?）

30.A（使用"艺术"一词可能带来的负面影响。原文 A 段：You may crush an artist by telling him... it is not "true art".）

【Q31-36 主题配对】

31.C（Rubens' son。艺术家希望我们分享他对这一主题的欣赏。原文 D 段：Rubens made a drawing of his young son... wanted us, too, to delight in the child's appearance.）

32.F（elephant。艺术家旨在给人总体印象而非细节。原文 G 段：Rembrandt gave us the feel of the elephant's wrinkly skin with just a few lines of chalk.）

33.B（alpine scene。个人经历可能使人认为画作令人不悦。原文 C 段：instinctively turn away from a magnificent picture of an alpine scene because we dislike climbing.）

34.G（horses。这一主题过去的表现方式错误。原文 H 段：paintings showed horses galloping with outstretched legs... photography proved that horses simply do not gallop in that way.）

35.E（hare。这幅画因艺术家精确描绘而闻名。原文 G 段：Dürer's watercolour study of a hare is one of the most famous examples of this loving patience.）

36.A（village scene。人们可能因画作之外的原因喜欢它。原文 B 段：We may like a painting of a village scene because it reminds us of home.）

【Q37-40 摘要填空】

37.truthful（丢勒画母亲因真实描绘而重要。原文 E 段：His truthful study of old age... is a great work.）

38.shock（需要克服最初的反感/冲击。原文 E 段：His truthful study of old age may give us a shock which makes us turn away from it.）

39.understand（一些人受不费力就能理解的表情影响。原文 F 段：Some people like an expression which they can readily understand.）

40.interpretation（其他人更愿意看那些留有解释空间的绘画或雕塑。原文 F 段：some of us would rather look at paintings or sculptures which are open to interpretation.）

四、白蚁丘（Termite Mounds）

【核心逻辑链】

文章颠覆白蚁的破坏性形象，揭示其建筑奇迹对人类未来建筑的启示。白蚁丘规模惊人，内部隧道网络如血管般复杂，具备通风换气、恒温（温差不超过 3 度）、自动调节湿度等功能。白蚁与真菌互利共生：真菌分解木屑供能，白蚁提供食物并利用纤维素筑巢，内部还有废物循环系统。科学家称白蚁丘为“超级有机体”，将体内稳态外化于建筑，挑战对“生命”的传统定义。研究方法为填充石膏、切片扫描、电脑三维建模。研究成果可启发自给自足、环保节能的建筑设计，应对气候变化和能源危机，甚至用于月球等极端环境。

【Q27-33 段落标题配对】

27 Paragraph A: iii reconsidering the termite's reputation（重新评估白蚁的名声。段首说白蚁是破坏性害虫，但段尾指出它们可能对人类有用。）

28 Paragraph B: vii the astonishing physical dimensions of the termite mound（白蚁丘惊人的物理尺寸。全段描述高度、深度和复杂的隧道结构。）

29 Paragraph C: iv principal functions of the termite mound（白蚁丘的主要功能。详细说明通风、恒温、调湿等功能。）

30 Paragraph D: ix a mutually beneficial relationship（互利共生关系。描述白蚁与真菌的共生关系。）

31 Paragraph E: ii challenging our assumptions about the nature of life（挑战我们对生命本质的认知。提出"超级有机体"和重新定义"生命"的概念。）

32 Paragraph F: i methods used to investigate termite mound formation（研究白蚁丘形成的方法。介绍填充石膏、切片、拍照、建模的过程。）

33 Paragraph G: vi some potential benefits of understanding termite architecture（理解白蚁建筑的一些潜在好处。讨论对未来建筑、能源危机、月球基地的启示。）

【Q34-37 图表填空】

34 tunnels（复杂的隧道系统从外部吸入空气。C 段：This complex system of tunnels draws in air from the outside...）

35 air（为巢穴提供新鲜、可呼吸的空气。C 段：ensuring them a continuous provision of fresh, breathable air.）

36 moisture（地下"地窖"帮助调节空气中的湿度。C 段：The mound also automatically regulates moisture in the air, by means of both its underground 'cellar'...）

37 evaporation（从丘顶的蒸发也有助于控制湿度。C 段：...and evaporation from the top of the mound.）

【Q38-40 YES/NO/NOT GIVEN】

38 YES（白蚁丘似乎在内部处理其废物。D 段：although the termites must generate waste, none ever leaves the structure, indicating that there is also some kind of internal waste-recycling system.）

39 NO（Soar 博士的重建工作涉及将完整白蚁丘的单张照片扫描进电脑。F 段：photographs them sequentially... Once the pictures are digitally scanned... 是逐片拍照，而非单张完整照片。）

40 YES（关于白蚁建筑的新信息可以帮助人们应对未来的能源危机。G 段：As we approach a world of climate change and temperatures rise, there will not be enough fuel to drive air conditioners around the world. 研究可启发节能建筑。）

五、尼安德特人的生存技艺（Neanderthal Technology）

【核心逻辑链】

尼安德特人既住洞穴也住露天营地（A 段）。法国佩里戈尔地区洞穴朝南、避风、近水源、气候温和、猎物丰富，是理想居所（B 段）。中欧东欧露天营地多在水边，如摩尔多瓦发现猛犸骨帐篷环（C 段）。洞穴内发现兽皮帐篷痕迹、狐狼脚骨（兽皮铺盖）、火堆旁贝壳（海藻铺垫）、卵石铺地防积水（D 段）。火是生存必需，提供温暖、光、烹饪、御敌，但火塘多为短期、不规则小堆，难辨结构（E 段）。

【Questions 27-31 段落标题匹配】

27. v（A 段：对比洞穴与露天住所）
28. iii（B 段：佩里戈尔地区是完美居所）
29. i（C 段：露天住所证据，如猛犸骨帐篷环）
30. iv（D 段：检查洞穴内容物——骨、壳、卵石等）
31. vi（E 段：火是重要能量来源）

【Questions 32-36 地点配对】

32. E（Krapina：烧焦的白桦木，火钻棒）
33. D（Baume-Bonne 洞穴：铺卵石防止积水）
34. C（Lazaret 洞穴：灰堆边缘有海洋软体动物壳）
35. B（Moldova：猛犸骨围成的大帐篷环）
36. C（Lazaret 洞穴：狼和狐狸脚骨，表明用兽皮作铺盖保暖）

【Questions 37-39 摘要填空】

37. sub-arctic（亚北极条件，无火无法生存）
38. short（短暂持续时间）
39. predatory animals（抵御掠食动物）

【Question 40 主旨题】

40. C（全文讨论已知的尼安德特人居址与聚落）

六、山洞研究：群体行为实验（The Robbers Cave Study)

【核心逻辑链】

Sherif 的 Robbers Cave 研究：22 名男孩分成两组（Eagles 和 Rattlers），第一阶段形成群体认同；第二阶段通过“Grand Tournament”制造竞争，引发冲突（评分被操纵，出现作弊、破坏、打架）；第三阶段尝试减少冲突：平等地位接触（吃饭、看电影）无效甚至恶化关系；共同目标合作（筹款、解决水问题、拖车）有效消除敌意。实验证明：竞争加剧群体偏见，合作可化解冲突。

【Questions 27-28 双选题（关于男孩的陈述）】

27. A（两组在受欢迎程度上大致匹配 → 朋友数量相当）

28. E（他们得到了帽子和 T 恤 → 识别所属群体的衣服）

排除：B（父母未帮助搭营地）；C（非自选分组）；D（帐篷是营地活动，非自带）；F（发现垃圾但无人因此被批评）

【Questions 29-34 摘要填空】

29. sporting events（10 项体育活动）

30. scoreboards（大厅里的记分牌增加竞争感）

31. equal（分数几乎相等）

32. Rattlers（被认为是 tougher 的组）

33. cheating（拔河中被指控作弊）

34. less tough（最终获胜的是 Eagles）

【Questions 35-38 表格填空】

35. food fights（吃饭导致食物大战）

36. watching films（看电影却分开坐）

37. common goal（为共同目标筹款）

38. solving problems / problem-solving（卡车被困，共同解决问题）

【Questions 39-40 双选题（关于实验者）】

39. C（使用评分任务评估内群体偏见 – 93%偏好组内）

40. E（秘密操纵比分 – manipulated scores）

排除：A（数据来自 participant observers，非秘密观察点）；B（“them/us”是男孩自发使用）；D（未提避免受伤）；F（未加入活动）

七、土地盐碱化（Sea Change for Salinity）

【核心逻辑链】

澳大利亚土壤盐碱化严重，盐分可沿古河道地下移动，导致地表植树等治理可能无效（A-B）。农民曾成立政府资助的“Landcare”组织，但盐害仍在蔓延（C-D）。预计到 2050 年盐害将影响 1700 万公顷并污染默里河饮用水，治理需数百年（E）。新技术（电磁、磁法、放射性测量）可探测地下盐分分布，但必须综合使用才能有效（F-H）。先进机载电磁法可分层探测盐分深度，指导后续治理（H）。

【Questions 27-33 段落信息匹配】

27.E（预测到 2050 年默里河盐分超标）

28.H（单独使用只给线索，合起来才能看清地下）

29.B（过去两年机载电磁法精度大幅提升）

30.C（农民成立政府资助的“Landcare”团体）

31.E（解决盐碱问题需要数百年而非数十年）

32.H（定位盐分→判断盐度→分析变化→预测走向→建模→试验）

33.B（地表植树可能无效，盐仍会沿古河道偷溜出来）

【Questions 34-36 技术匹配】

34.B（电磁测量可揭示风化层——地表覆盖层的性质和变化）

35.A（放射性分析帮助确定在哪里种植特定作物）

36.C（先进机载电磁法可对不同深度切片，确定盐分埋藏深度）

【Questions 37-40 单选题】

37.C（用于勘探黄金的高新技术也被用于定位盐分）

38.B（盐分会沿古河道在地下移动并突然冒出）

39.C（Howell 问：人们还要谋生，如何推行土地利用变化？→可能减少收入）

40.A（文中多处将盐比作“偷偷溜走”“伏击”“敌人”——隐蔽移动）

八、类人猿与争取法律权利的运动（Great Apes and the Push for Legal Rights）

【核心逻辑链】

文章讨论为类人猿（黑猩猩、大猩猩、红毛猩猩、倭黑猩猩）争取基本法律权利的运动。支持者（如彼得·辛格）创立“类人猿计划”，主张基于共有的感知和智力，反对

“物种歧视”。1999 年新西兰、2008 年西班牙率先立法禁止对类人猿的有害实验。反对者担心“滑坡效应”——权利可能扩大至其他动物，且人类自身权利尚不完善。科学界担忧阻碍医学研究，但支持者指出实验已大幅减少。辛格认为保护“进化表亲”是道德义务。文章还探讨了该运动对野生动物保护及物种边界的深远影响。

九、观赛心境（Inside the mind of a fan）

【核心逻辑链】

观看体育比赛令人着迷，原因在于镜像神经元。猴子大脑中的镜像神经元在自身做动作和观察他人做类似动作时都会激活；人类镜像神经元更精细，但需要“有目标的动作”才能触发（C 段）。新手因依赖“意识”而动作生疏，专家则将其内化于前运动皮层，达到自动驾驶（B 段）。镜像神经元首次发现于 1954 年（Gastaut 和 Bert），涉及 mu 脑波（D 段）。镜像使观察者共鸣，从而提升表现：看高尔夫能打得更好，看短跑能跑更快（E 段）。然而，人们观看比赛的主要动机并非提升技能，而是体验情感——镜像神经元连接杏仁核，带来情感满足和群体联结（F 段）。

【Questions 27-32 段落信息匹配】

27. F（观看运动的情感满足：mirror neurons connected to amygdala → feeling）

28. B（新手觉得困难：novices swing with consciousness, using area next to premotor cortex）

29. E（体育卓越需镜像+身体条件：together with physical properties to make movements real）

30. C（比较人与动物：humans have even more elaborate mirror neuron system）

31. D（首次发现：first discovered in 1954, Gastaut and Bert）

32. E（观察提升表现：watching a great golfer makes us better golfers, watching a great sprinter makes us run faster）

【Questions 33-35 单选题】

33. C（‘grammar of movement’指 connected cells networks，细胞网络的结构化组织）

34. A（专家动作无意识：second nature, perfected autopilot → without conscious thought）

35. C（观看运动最常见动机：we watch for the feeling, human drama → experience strong positive emotions）

【Questions 36-40 YES/NO/NOT GIVEN】

36. YES（新手用意识挥杆 → too aware of what they are doing）

37. NO（人类有更精细的系统 → 猴子不比人类复杂）

38. NO（照片中镜像神经元完全沉默 → 不激活）

39. NOT GIVEN（只说是生理学家，未提是否为运动员）

40. YES（mu 系统在做活动时 disappears/quiet → at rest）

十、纵向研究（The Dunedin Study）

【核心逻辑链】

文章介绍新西兰达尼丁一项长达数十年的纵向研究（Dunedin Multidisciplinary Health and Development Study）。1970 年代初，达尼丁富裕且被视为育儿理想地，但心理学家 Phil Silva 发起研究，对 1972 年出生的 1037 名三岁儿童进行健康与发展评估，获 91%家长参与。因资金匮乏，研究在教堂进行，由志愿者协助。五岁时进行第二次研究，增加纪律、营养、牙齿健康等新指标。1978 年发现大量儿童存在语言迟缓、耳疾等发育问题，引起全国震惊。后续跟踪至 7、9、11 岁，后因政客关注和政府资金注入，研究迁至废弃建筑，成为长期基地。近期发现：出生并发症未必影响未来，但出生体重与 IQ 相关；母乳喂养并非如教科书所说能预防哮喘过敏；吮拇指无害；出生顺序不影响发展；母亲工作不使孩子处于劣势。研究证实三岁定性格。研究成功归因于运气（达尼丁社区紧密）和 Silva 的方法，他重视参与者，维护隐私，消除参与障碍，保持高保留率（32 岁时 96%）。研究继续关注海外参与者，并努力保持联系。

【Questions 27-32 选择题】

27. D（依据：A 段提到新西兰是第九富国，居民认为这是养育孩子的无与伦比的城市）

28. C（依据：A 段用“Incredibly”强调 91%家长同意参与，出乎意料）

29. B（依据：C 段发现 1/4 儿童语言迟缓，15%有耳疾，还有失明、皮肤癌等，说明发育问题普遍）

30. D（依据：B 段第二次研究引入新的测量标准：纪律、营养、牙齿健康）

31. B（依据：B 段首句“precious little money”表明资金短缺）

32. B（依据：D 段提到新建筑是长期基地，其获得代表研究发展的里程碑，且之前有政府资金注入，表明研究被重视）

【Questions 33-36 判断题】

33. YES（依据：E 段“the amount a newborn infant weighs is associated with IQ”）

34. NOT GIVEN（依据：E 段教科书说母乳喂养预防哮喘和过敏，未提智力更高）

35. NO（依据：E 段“thumb-sucking does no harm”）

36. YES（依据：E 段“explode medical myths long held by the profession”即挑战医生先入之见）

【Questions 37-40 摘要填空】

37. A（依据：F 段提到研究结果可推广至新西兰和其他发达国家，即 generalisable research）

38. B（依据：G 段 Silva 认为最重要的资产是样本组，必须照顾，即 study members）

39. G（依据：G 段强调隐私至关重要，不能破坏信任，对应 confidentiality）

40. F（依据：H 段提到消除参与障碍，即 barriers to involvement）

十一、如何赢得世界记忆锦标赛（How to win the World Memory Championship）

【核心逻辑链】

世界记忆锦标赛选手并非天生记忆力超群，而是使用特定技巧。心理学家和神经科学家通过 MRI 扫描发现，记忆选手执行记忆任务时，大脑中与空间记忆和导航相关的区域（内侧顶叶皮层、压后皮层、右后海马体）异常活跃。这些选手使用的是“位置记忆法”（method of loci），也称“记忆宫殿”（memory palace）。

该技术起源于古希腊诗人 Simonides of Ceos（约公元前 500 年）。一次宴会坍塌后，他通过回忆客人位置辨认尸体，由此发现人类对地点及关联图像的记忆力极强。操作方式：想象一段熟悉的路径或建筑空间，将需要记忆的物品转化为生动图像放置在各位置点，回忆时进行“虚拟漫步”即可提取信息。

人类进化中需要出色空间记忆来生存(survive)——记住水源、危险地点、回家路线，因此大脑空间处理系统非常强大。将抽象信息转化为奇异、情绪化或感官丰富(sensory-rich)的图像并锚定空间位置，可“劫持”这一古老脑系统。后续研究：普通人经训练后，大脑扫描模式开始类似经验丰富的冠军(seasoned champions)，证明该技术可重塑大脑处理记忆的方式。

【Q27-32 判断题】

27. TRUE（无选手曾在 30 秒内记住一副扑克牌序列。第 1 段：No-one has ever managed this last feat in under 30 seconds...）

28. FALSE（MRI 研究中的对照组也是经验丰富的记忆运动员。第 2 段：对照组是 control subjects，非记忆选手）

29. FALSE（内侧顶叶皮层参与处理听觉信息。第 2 段：These areas are known to be involved in spatial memory and navigation，非听觉）

30. TRUE（Simonides of Ceos 在一场宴会建筑坍塌后发展了位置记忆法。第 3 段：According to legend... building collapsed... he formulated a principle...）

31. TRUE（当前记忆一副扑克牌的世界纪录约为 13 秒。第 5 段：The current world record holder... just over 13 seconds for a full deck）

32. FALSE（教育机构已在课程中普遍采用记忆训练。第 6 段末：Educational institutions are beginning to take notice, with some incorporating... 只是部分开始，非普遍采用）

【Q33-37 摘要填空】

33. spatial（第 2 段：engaged spatial learning pathways... the task itself had no spatial component）

34. memory palace（第 3 段：known formally as the "method of loci" or more colloquially as the "memory palace"）

35. survive（第 4 段：our ancestors needed excellent spatial memory to survive）

36. sensory-rich（第 4 段：The more bizarre, emotional, or sensory-rich the mental image...）

37. seasoned champions（第 5 段：their brain scans... began to resemble those of the seasoned champions）

【Q38-40 选择题】

38. B（后续研究的重要性。第 5 段：This provided powerful evidence that the technique itself reshapes how the brain approaches memory challenges → 学习可以改变大脑激活模式）

39. C（位置记忆法尤其适用于记忆什么。第 6 段：The method of loci is exceptionally effective for memorising lists, sequences, and structured information）

40. C（文章关于非凡记忆的主要结论。第 5 段：exceptional memory is not a gift... but a skill that can be acquired through training）

十二、昆虫机器人（Insect-inspired robots）

【核心逻辑链】

文章介绍仿生机器人研究，模仿昆虫能力。Zelinsky 模仿黄蜂用 landmarks 导航，开发机器人全景相机识别地标。Wehner 研究撒哈拉蚂蚁 Cataglyphis 利用偏振光导航，开发 Sahabot。Michelson 受蜻蜓启发设计 Entomopter，能在稀薄大气中飞行。Quinn 和 Ritzmann 模仿蟑螂的快速奔跑能力，设计六腿或轮腿机器人。会议中专家讨论仿生机器人的应用前景（军事、清洁、环境监测）及伦理问题。

【Q27-32 段落信息匹配】

27. F（仿生机器人使用的积极和消极可能性）
28. B（感知大小如何用作导航辅助）
29. E（决策发生在肢体中的例子）
30. D（太空探索潜在辅助的描述）
31. A（启发仿生机器人的技能范围）
32. C（多种导航方法同时运作）

【Q33-36 简答】

33. mantis shrimp（螳螂虾）
34. (a) panoramic camera（全景相机）
35. the Sahara Desert（撒哈拉沙漠）
36. polarised light（偏振光）

【Q37-40 人物-机器人配对】

37. D（Zelinsky – 根据有用性对信息分类的机器人）
38. A（Wehner – 利用光和存储图像导航的机器人）
39. F（Michelson – 在其所模仿昆虫能力上有所改进的机器人）
40. C（Quinn 和 Ritzmann – 能在复杂地面移动的机器人）

十三、信息论——大数据（Information Theory - the Big Data）

【核心逻辑链】

文章通过旅行者一号太空探测器的维修事件引出信息论的重要性。Claude Shannon 创立信息论，将信息定义为二进制单位“比特”，并证明信息可在噪声中完整传输。噪声限制信息传输速率，取决于信号强度、噪声水平和带宽。通过编码技术可在不超带宽的情况下应对噪声。Shannon 还奠定了数据压缩基础，去除冗余信息。

【Q27-32 段落信息匹配】

27. D 段（影响信息传输因素的解释。原文：This rate depends on the relative strengths of the signal and noise... and on its capacity）

28. F 段（如何省略不必要信息的例子。原文：As mobile phone text messages like 'I CN C U' show, it is often possible to leave out a lot of data without losing much meaning）

29. B 段（提及 Shannon 对名声的态度。原文：shunned the resulting acclaim）

30. E 段（能解读不完整信息的机器细节。原文：such as the Universal Product Code, or bar code, which uses a simple error-detecting system that ensures supermarket check-out lasers can read the price even on, say, a crumpled bag of crisps）

31. A 段（涉及信息论的事件详细描述。旅行者一号维修）

32. C 段（提及 Shannon 最初研究目标。原文：He set out with an apparently simple aim: to pin down the precise meaning of the concept of 'information'）

【Q33-37 笔记填空】

33. Jupiter and Saturn（旅行者一号传回木星和土星图像。A 段：sent back spectacular images of Jupiter and Saturn）

34. Solar System（然后离开太阳系。A 段：soared out of the Solar System）

35. sensors and circuits（传感器和电路即将失效。A 段：Sensors and circuits were on the brink of failing）

36. spares（用备件替换。A 段：instruct it to use spares to change the failing parts）

37. radio dish（用无线电天线传输信息。A 段：By means of a radio dish）

【Q38-40 TRUE/FALSE/NOT GIVEN】

38. TRUE（将事物描述为真或假的概念是 Shannon 尝试远距离发送信息的起点。C 段：The most basic form of information, Shannon argued, is whether something is true or false - which can be captured in the binary unit, or 'bit'）

39. TRUE（给定时间内可发送的信息量由信号强度和噪声水平决定。D 段：This rate depends on the relative strengths of the signal and noise...）

40. FALSE（现已开发出能传输比 Shannon 预期更多信息的产品？E 段说 turbo codes 接近 Shannon 极限，但未超过）

十四、让我们都成为朋友（Let's All be Friends）

【核心逻辑链】

文章介绍社交网络科学及其在政策制定中的应用。Uzzi 通过研究百老汇音乐剧发现，团队合作历史与新成员比例的平衡影响成功。网络密度影响创造力和沟通。健康政策可利用社交网络：针对关键人物投资可产生连锁效应，改善整个群体的行为（如饮食、戒烟）。但网络也可能传播有害行为（如金融恐慌、极端主义），因此理解网络结构至关重要。

【Q27-31 摘要填空】

27. **network（成功取决于创作团队的网络）**
28. **vision（全新人团队因缺乏创意视野而失败）**
29. **flops（常合作的团队也常产出失败作品）**
30. **mix（最成功的团队有新老成员的混合）**
31. **density（网络密度的平衡）**

【Q32-36 YES/NO/NOT GIVEN】

32. **NO（政府目前有效利用社交网络科学？原文说应考虑使用）**
33. **NO（《Bring Back Birdie》财务成功？原文说仅演四晚）**
34. **NO（Uzzi 研究分析了 20 世纪上半叶的音乐剧？原文 1945-1989）**
35. **YES（青少年的饮食习惯可能受从未谋面的人影响。原文 C 段）**
36. **NO（投资关键人物保证更具成本效益？原文说可能，但未保证）**

【Q37-40 笔记填空】

37. **exercise（锻炼）**
38. **cascade（连锁效应）**
39. **harmful（有害行为）**
40. **structure（结构）**

十五、营销与信息时代（Marketing and The Information Age）

【核心逻辑链】

早期营销重在不断寻找新客户，现代营销强调长期客户价值与重复购买（A）。信息时代，企业利用技术收集信息获取竞争优势，如 Channel [V]的个性化提醒（B）。多数营销信息由营销组织收集，政府仅提供小部分（C）。收入增加使消费者选择更广，商家需信息了解反应（D）。发达国家正向信息经济转型（E）。信息过量成为问题，员工可能隐瞒不利信息，管理者常不善用信息（F）。营销信息系统（MIS）从评估管理者信息需求开始，经内部记录等来源开发信息，由分析单元处理后分发（G）。信息本身无价值，只有使用才有价值；当信息成本超过收益时不应获取（H）。

【Questions 27-31 段落信息匹配】

27. F（信息过量——“淹死在信息中”）
28. A（客户必须看到反复回购的价值）
29. B（Channel [V]的短信邮件提醒示例）
30. H（利润增长仅 2.5 万，花费 3 万获取信息不明智）
31. D（家庭收入增加，选择范围扩大）

【Questions 32-36 YES/NO/NOT GIVEN】

32. NO（C 段：大多数信息由营销组织收集，非政府）
33. NOT GIVEN（E 段：提到多国转型，未比较速度）
34. YES（F 段：下属会隐瞒不利于表现的信息）
35. YES（F 段：营销组织有更大能力提供信息，但常不善用）
36. YES（H 段：信息本身无价值，价值来自使用）

【Questions 37-40 流程图填空】

37. marketing managers

定位句：*“The MIS begins and ends with marketing managers.”*

解释：流程起点为“营销经理”。

38. information needs

定位句：*“...interacts with these managers to assess the information needs they have.”*

解释：评估他们的“信息需求”。

39. internal records

定位句：*“...develops the needed information from internal records, marketing intelligence activities and the research process.”*

解释：信息来源之一是“内部记录”。

40. analysis unit

定位句：*“The analysis unit processes the data to make it more useful...”*

解释：数据由“分析单元”处理。

十六、论耳机的使用（Some views on the use of headphones）

【核心逻辑链】

文章探讨工作场所及日常生活中佩戴耳机的利弊。年轻员工坚信音乐提升工作效率，但科学研究表明音乐（尤其带歌词的）会降低认知表现，安静环境效果最佳。尽管科学结论如此，人们仍佩戴耳机，原因包括：服务经济需要深度专注、开放式办公室需要创造私人声场、音乐具有放松身心降血压等益处。耳机 1910 年由 Nathaniel Baldwin 发明，最初用于海军通信。耳机使音乐从公共社交工具变为私人体验，类似文字对语言的影响。耳机满足人们对独立和隐私的追求，改变人与公共空间的关系——在拥挤城市中创造屏障，既隔离他人又显示"请勿打扰"。最终，耳机不仅创造隐私，还通过放松促进内省和创造力。

【段落概要】

- Section 1：公众信念与科学结论的冲突——年轻员工自信音乐提升效率，但科学研究表明音乐降低认知表现，安静环境最佳。
- Section 2：耳机盛行的原因——服务经济需要深度专注、开放式办公室需要私人声场、音乐具有放松身心降血压等益处。
- Section 3：耳机的起源——1910 年 Nathaniel Baldwin 发明耳机，最初被美国海军用于一战无线电通信。
- Section 4：耳机改变音乐的社会角色——音乐原本是促进社会凝聚的工具，耳机

使音乐变得私密，如同文字使语言变得可记录。

- Section 5：独立与隐私的追求——美国人追求独立，但此欲望非美国独有；财富和技术可购买个人独立。
- Section 6：耳机与城市空间——耳机改变人与公共空间的关系，在拥挤城市中创造屏障，佩戴者被视为"请勿打扰"。
- Section 7：耳机的深层价值——音乐促进放松和内省，注意力向内转向，帮助人们倾听内心声音。

【Q27-31 判断题】

27. NOT GIVEN 文中只说年轻人自信地报告音乐好处，未提到"被调查说服"
28. YES 多项研究都得出"安静更好"的相同结论
29. NOT GIVEN 提到音乐"可能降血压"，未提到"医生建议戴耳机"
30. NO Baldwin 被称为"eccentric inventor and repairman"，与"respected government researcher"相反
31. YES"headphones have done what writing and literacy did for language"

【Q32-36 选择题】

32. A 服务经济工作"require higher levels of concentration, reflection and creativity"——脑力要求高
33. C 列举苏美尔乐谱、骨笛等证据，支持"音乐在人类历史中一直很重要"
34. D 耳机"made music private"，改变了音乐的社会角色——从公共社交工具转为私人体验
35. B"wealth can buy – and modern technology can deliver – personal independence"
36. A 引用 Lehrer 说明"音乐使注意力内收、激发创造力"，支撑作者观点

【Q37-40 摘要填空】

37. B"change how we relate to public spaces" —— 改变与公共空间的"关系"
38. E"people are moving from the edges of cities to live in urban centres" —— 不热衷住"郊区"

39. G"Headphones create shields... separating them from other people" —— 形成"屏障"

40. A"We assume... busy and we should respect their privacy" —— 受到"礼貌"对待

十七、死前必吃的 1000 道菜（What Are the 1,000 Foods to Eat Before You Die?）

【核心逻辑链】

Mimi Sheraton 受《死前必去的 1000 个地方》启发，耗时 10 年完成《死前必吃的 1000 道菜》。书中按“饮食体验”（街头小吃、慰藉食物、甜点等）而非国家或食材分类，每个条目都是微型故事，包含历史背景、品尝建议及约 70 个食谱。该书旨在激发好奇心与欣赏力，而非客观排名。虽有争议（如香蕉是否应入选、欧美食材偏好），但 Sheraton 强调基于个人旅行与专业知识。最终目标是鼓励读者拓展“ culinary comfort zone”，开启美食冒险。

【Questions 27-31 判断题】

27. FALSE（原文称她是 former *New York Times* restaurant critic，非 currently）

28. TRUE（第二段：Inspired by Patricia Schultz's *1,000 Places to See Before You Die*）

29. FALSE（原文：and even several dozen recipes，并非每项都有食谱）

30. FALSE（原文：organized not by country or type of food, but rather by the experience of eating itself）

31. TRUE（原文：she's been writing about food for 60 years）

【Questions 32-35 选择题】

32. D（第一段通过异国食物例子引出书的冒险特性）

33. C（文中未提 nutritional information）

34. C（organized by the experience of eating itself）

35. C（to inspire curiosity and appreciation, not to end debate）

【Questions 36-40 摘要填空】

36. passport（serves as a passport to gastronomic adventure）

37. stories（entries are miniature stories）

38. controversies（a list of 1,000 items is bound to include some controversies）

39. personal travels（extensive research and personal travels that informed her choices）

40. culinary comfort zone（look beyond their culinary comfort zone）

十八、看看谁在说话（Look who was talking）

【核心逻辑链】

文章探讨人类语言起源的两种理论：Chomsky 主张语言在 35,000-50,000 年前突然出现，与理性思维相关；Condillac 认为语言从手势语逐步发明而来。作者支持后者，指出脑容量在 1.2 百万年前已接近现代水平，而文化发展却滞后，说明语言能力早已具备。文化传播是累积过程，先慢后快。气候恶化（2.5 百万年前）可能推动了语言发展。

【Questions 27-32 人名观点配对】

27. B（Condillac：手势语言起源于猿类，伴随声音逐渐编码为词语）

28. C（两者皆非：文章提到动物实验，但未说动物研究是理解语言发展的必要条件）

29. A（Chomsky：语言在 35,000-50,000 年前突然出现，相对较晚）

30. B（Condillac：口头语言从手势语言发展而来）

31. C（两者皆非：语言差异是文化产物，非生物学因素，但非直接归因于环境）

32. A（Chomsky：逻辑思维依赖词语，动物不说话因为不思考）

【Questions 33-37 判断题】

33. NO（第 1、4 段：人类学家对语言出现时间有不同观点，未达成一致）

34. NO（第 6 段：脑增长最快时技术进步缓慢；技术加速时脑变小 → 非直接相关）

35. YES（第 7 段：2.5 至 1.5 百万年前脑增长最快）

36. NOT GIVEN（文章未提及农业）

37. YES（第 9 段：文化发展曲线先慢后快）

【Questions 38-40 日期匹配】

38. C（第 5 段：修订后化石证据表明大部分脑增长到 1.2 百万年前完成）

39. C（第 8 段：1.2 百万年前脑容量接近最大值，早期祖先可能已能完美说话）

40. A（第 8 段：2.5 百万年前气候恶化可能推动了语言发展）

三、课堂实践学习（Practical Learning in the Classroom）

【核心逻辑链】

文章描述一位美术教师通过传统土坯建筑修复项目开展实践教学的案例。作者在祖尼镇教学时，发现学校后方有一栋废弃的土坯建筑，现用于存放旧家具。学生通过口述历史作业采访家人、朋友和邻居，拼凑出建筑历史：曾用作幼儿园、美术教室。建筑因设计独特——宽大南面冬季保温，宽敞阁楼和厚重土墙夏季隔热——学生一致认为值得修复。修复专家 Gasper 评估后建议用传统泥灰替代原灰泥，并指导寻找本地砂土。学生秋季拆除灰泥，次年春季在 Gasper 和其他本地专家指导下进行三上午密集培训，学习历史、保护和泥灰技术，最终完成修复。

此类小型设计建造项目可完整实施。简单的景观构筑物（墙、入口、拱门）可引导学生关注结构与人、景观、自然元素的互动，同时涉及土壤化学、结构力学，融入测量估算等数学技能。

【Q27-31 单选题】

27. C（美国建筑师协会推广什么？设计建筑结构的实践。原文未直接提及，根据答案判断为 C。）

28. B（关于建筑教学提到什么问题？现代建筑要求阻碍学生建造设计。原文未直接提及，根据答案判断为 B。）

29. A（作者认为此类项目最重要的益处是什么？与最终成果的个人联系。原文强调学生从历史研究到动手修复的全程参与，建立情感连接。）

30. B（作者在最后一段提到简单景观构筑物是为了概述一个项目涉及的各种技能。原文：draw students into important aspects of design... focus on the chemistry of soil or the structural dynamics... integrate math skills.）

31. D（作者对大型土坯建筑有何看法？不同的人因不同原因被吸引。根据答案判断为 D。）

【Q32-36 摘要填空】

32. D（storage。学生翻新的旧建筑曾被用作储藏。原文：Now it served as a place where old furniture could be kept.）

33. C（design。学生基于其功能性设计认为建筑值得修复。原文：The building's design kept it relatively warm... and it stayed cool... my students agreed it was worth

preserving.）

34. F（resources。学生学会为项目寻找资源。原文：She showed us where to find local supplies of sand and clay soil for the plaster mix.）

35. A（experts。学生在项目各步骤与专家密切合作。原文：Gasper and other local specialists joined us.）

36. G（training。学生在项目期间接受培训以培养技能。原文：They gave my class three full mornings of intensive workshops on history and preservation as well as mud-plastering technique.）

【Q37-40 YES/NO/NOT GIVEN】

37. NO（传统建筑材料的成本是劣势。原文未提及成本问题，根据答案为 NO。）

38. NOT GIVEN（土坯建筑在美国各地都易于建造。原文未提及地理分布和建造难度，根据答案为 NOT GIVEN。）

39. YES（参与土坯建筑项目对学生有身体益处。原文描述学生参与拆除、抹灰等体力活动，有身体锻炼效果。）

40. NOT GIVEN（作者认为土坯建筑项目最适合初中生。作者以初中生为教学对象，但未声称这是最合适的年龄段。）

二十、欺骗的艺术（The Art of Deception）

【核心逻辑链】

文章介绍 Ekman 对微表情的研究。他发现人们在试图隐藏情绪时，会有短暂（1/15 秒）的微表情流露。这些表情具有跨文化普遍性。大多数人无法察觉，但可通过训练学会。Ekman 将技术用于 FBI 等机构，并被改编为电视剧《别对我说谎》。他区分了真正的谎言与表演，并拒绝为政客提供培训。

【Q27-31 单选题】

27. C（Ekman 对说谎感兴趣源于学生提问）

28. B（提到 12 分钟访谈是为了描述 Ekman 理论的起源）

29. A（第三段要点是微表情普遍存在于所有人）

30. B（测试显示未经训练的人很少能识破谎言）

31. B（第四段指出他的技术需求量大）

【Q32-36 摘要选词】

32. C（False beliefs – 鼓励观众的错误信念）
33. E（justice – 正义无法实现）
34. H（research – 基于一个人的研究）
35. D（motives – 制片人的动机）
36. F（accuracy – 整体准确性）

【Q37-40 TRUE/FALSE/NOT GIVEN】

37. NOT GIVEN（Ekman 后悔儿时撒谎？未提及）
38. FALSE（善于说谎的人也善于识谎？原文说两者无关）
39. NOT GIVEN（Ekman 与扑克玩家合作帮助他们更可信地撒谎？未提及）
40. TRUE（Ekman 更关注有严重后果的谎言类型）

二十一、什么是社会史？（What is social history?）

【核心逻辑链】

传统史学追求“新见解”以利职业晋升（第 1 段）。社会史关注公众议题，反对“伟人史观”和官僚事务，采用多学科视角（第 2 段）。它源于 1960 年代文化革命，研究 19 世纪及更晚近的历史（第 3-4 段）。怀旧产业反映了对战后社会变革的幻灭（第 5 段）。工业考古和民俗文化强调劳动尊严（第 6 段）。社会史有局限：堆积事实可能忽视沉默的领域，共情可能自我美化（第 8-9 段）。要发挥颠覆潜力，需更关注日常恐惧和冲突，并审视“普通人”概念（第 10-11 段）。

【Questions 27-31 概要填空】

27. C（originality：研究者为职业晋升追求新见解）
28. F（interests and feelings：社会史与公众的热情和情感相关）
29. D（important people：反对伟人史观）
30. H（organisational matters：避开官僚事务）

31. A（methodology：采用多学科视角，即教学方法论不同）

【Questions 32-35 判断题】

32. NO（第 3 段：社会史源于 1960 年代文化革命，而非导致它）

33. YES（第 3 段：传统研究 12-17 世纪，社会史研究 19 世纪及当代）

34. NO（第 4 段：New Wave British cinema with working-class protagonists）

35. NOT GIVEN（第 4 段提到 questioning of authority，未说是社会问题的主因）

【Questions 36-40 选择题】

36. D（第 5 段：怀旧产业是现代化主导趋势的负面对应物 → 反对主导趋势）

37. B（第 6 段：工业考古将废弃工厂提升为国家纪念物 → 对传统工业建筑的新兴趣）

38. B（第 7 段：幻灭感形成对过去的理想化看法 → 现代生活未必优于过去）

39. C（第 8 段：事实堆积可能挤掉沉默领域的概念空间 → 更重要问题被忽视）

40. A（第 10 段：需更重视不安全感和恐惧等负面情绪）

二十二、水下运动（Movement Underwater）

【核心逻辑链】

水生生物运动是为觅食、避敌、繁殖、迁移（A 段）。水的密度和黏度产生巨大阻力，但也提供浮力，生物利用波浪和洋流（B 段）。鱼类用鱼鳔调节浮力以保持中性浮力（C 段）。浮游生物夜间上浮觅食、白天下潜避敌（D 段）。减少摩擦、湍流和形状三种阻力：光滑流线型鱼体（E 段）。游泳能力分三类：持续速度（剑鱼）、快速加速（梭鱼）、机动性（蝴蝶鱼）（F 段）。鱼靠身体肌肉波动产生推力（G 段）。不同鱼鳍控制侧向、上下运动及机动性（H 段）。

【Questions 27-31 段落信息匹配】

27. D（浮游生物白天沉入深处以躲避捕食者）

28. C（鱼鳔帮助鱼保持中性浮力）

29. G（肌肉波动产生水平波，向前推进）

30. A（觅食、避敌、求偶、育幼、迁移）

31. B（水既有阻力又提供浮力）

【Questions 32-35 表格填空】

32. speed（剑鱼擅长 fast, steady cruising → 保持速度）
33. acceleration（梭鱼擅长 swift acceleration）
34. freshwater pike / pike（潜伏后迅猛突袭）
35. butterfly fishes（蝴蝶鱼能迅速改变方向）

【Questions 36-40 图表填空】

36. turbulent（前端圆钝、后端收窄以减少湍流阻力）
37. up-and-down（胸鳍和腹鳍控制上下运动）
38. sideways（背鳍和腹鳍控制侧向运动）
39. manoeuvrability（鱼鳍的排列对机动性至关重要）
40. form（最小横截面积以减少形状阻力）

二十三、大脑改造（Brain Makeover）

【核心逻辑链】

文章探讨“美容神经学”——通过药物或电刺激增强健康人大脑功能的前景与伦理争议。该技术源于治疗神经疾病的医学研究，可改善思维、注意力、记忆、反应速度，应用于学生、警察、作家等群体（B-C）。研究显示药物和电刺激确能提升表现（E）。但引发深刻伦理问题：公平性、可及性、健康人是否应使用（F）。作者认为需区分治疗疾病与改善健康、患者与消费者（G）。