朗阁雅思阅读考题预测

Passage 1

Origin of Species & Continent Formation

A

THE FACT THAT there was once a Pangean supercontinent, a Panthalassa Ocean, and a Tethys Ocean, has profound implications for the evolution of multicellular life on Earth. These considerations were unknown to the scientists of the 19th century — making their scientific deductions even more remarkable. Quite independently of each other, Charles Darwin and his young contemporary Alfred Russel Wallace reached the conclusion that life had evolved by natural selection. Wallace later wrote in My Life of his own inspiration:

B

Why do some species die and some live? The answer was clearly that on the whole the best fitted lived. From the effects of disease the most healthy escaped; from enemies the strongest, the swiftest or the most cunning from famine the best hunters ... then it suddenly flashed on me that this self-acting process would improve the race, because in every generation the inferior would inevitably be killed off and the superior would remain, that is , the fittest would survive.

C

Both Darwin's and Wallace's ideas about natural selection had been influenced by the essays of Thomas Malthus in his Principles of Population. Their conclusions, however, had been the direct result of their personal observation of animals and plants in widely separated geographic locations: Darwin from his experiences during the voyage of the Beagle, and particularly during the ship's visit to the Galapagos Islands in the East Pacific in 1835: Wallace during his years of travel in the Amazon Basin and in the Indonesia-Australian Archipelago in the 1850s.

D

Darwin had been documenting his ideas on natural selection for many years when he received a paper on this selfsame subject from Wallace, who asked for Darwin's opinion and help in getting it published. In July 1858, Charles Lyell and J. D Hooker, close friends of Darwin, pressed Darwin to present his conclusions so that he would not lose priority to and unknown naturalist. Presiding over the hastily called but now historic meeting of the Linnean Society in London, Lyell and Hooker explained to the distinguished members how "these two gentlemen" (who were absent: Wallace was abroad and Darwin chose not to attend), had "independently and unknown to one another, comceived the same very ingenious theory."

E

Both Darwin and Wallace had realized that the anomalous distribution of species in particular regions had profound evolutionary significance. Subsequently, Darwin spent the rest of his days in almost total seclusion thinking and writing mainly about the origin of species. In constrast, Wallace applied himself to the science of biogeography, the study of

the pattern and distribution of species, and its significance, resulting in the publication of a massive two-volume work the Geographical Distribution of Animals in 1876.

F

Wallace was a gentle and modest man, but also persistent and quietly courageous. He spent years working in the most arduous possible climates and terrains, particularly in the Malay archipelago, he made patient and detailed zoological observations and collected huge number of speciments for museums and collectors-which is how he made a living. One result of his work was the conclusion that there is a distinct faunal boundary, called "Wallace's line, "between an Asian realm of animals in Java, Borneo and the Philipiones and an Australian realm in New Guinea and Australia. In essence this boundary posed a difficult question: How on Earth did plants and animals with a clear affinity to the Northern Hemisphere meet with their Southern Hemispheric counterparts along such a distinct Malaysian demarcation zone? Wallace was uncertain about demarcation on one particular island- Celebes, a curiously shaped place that is midway between the two groups. Initially he assigned its flora-fauna to the Australian side of the line, but later he transferred it to the Asian side. Today we know the reason for his dilemma. 200MYA East and West Celebes were islands with their own natural history lying on opposite sides of the Tethys Ocean. They did not collide until about 15 MYA. The answer to the main question is that Wallace's Line categorizes Laurasia-derived flora-fauna (the Asian) and Gondwana-derived flora-fauna (the Australian), fauna that had evolved on opposing shares of the Tethys. The closure of the Tethys Ocean today is manifested by the ongoing collision of Australia/New Guinea with Indochina/Indonesia and the continuing closure of the Mediterranean Sea—a remnant of the Western Tethys Ocean.

G

IN HIS ORIGIN OF CONTINENTS AND OCEANS, Wegener quoted at length from Wallace’s Geographical Distribution of Animals. According to Wegener's reading, Wallace had identified three clear divisions of Australian animals, which supported his own theory of continental displacement. Wallace had shown that animals long established in southwestern Australia had an affinity with animals in South Africa, Madagascar, India, and Ceylon, but did not have an affinity with those in Asia. Wallace also showed that Australian marsupials and monotremes are clearly related to those in South America, the Moluccas, and various Pacific islands, and that none are found in neighboring Indonesia. From this and related data, Wegener concluded that the then broadly accepted "landbridge" theory could not account for this distribution of animals and that only his theory of continental drift could explain it.

H

The theory that Wegener dismissed in preference to his own proposed that plants and animals had once migrated across now-submerged intercontinental landbridges. In 1885, one of Europe's leading geologists, Eduard Suess, theorized that as the rigid Earth cools, its upper crust shrinks and wrinkles like the withering skin of an aging apple. He suggested that the planet's seas and oceans now fill the wrinkles between once-contiguous plateaus.

I

Today, we know that we live on a dynamic Earth with shifting, colliding and separating tectonic plates, not a "withering skin", and the main debate in the field of biogeography has shifted. The discussion now concerns "dispersalism" versus "vicarianism": unrestricted radiation of species on the one hand and the development of barriers to migration on the other. Dispersion is a short-term phenomenon—the daily or seasonal migration of species and their radiation to the limits of their natural environment on an extensive and continuous landmass. Vicarian evolution, however, depends upon the separation and isolation of a variety of species within the confines of natural barriers in the form of islands, lakes, or shallow seas—topographical features that take a long time to develop.

Questions 1-5

Use the information in the passage to match the people (listed A-E) with opinions or deeds below. Write the appropriate letters A-E in boxes 1-5 on your answer sheet.

A	Suess
B	Wallace
C	Darwin and Wallace
D	Wegener
E	Lyell and Hooker

1 urged Darwin to publish his scientific findings
2 Depicted physical feature of earth's crust.
3 believed in continental drift theory while rejecting another one
4 Published works about wildlife distribution in different region.
5 Evolution of species is based on selection by nature.

Questions 6-8

The reading Passage has nine paragraphs A-I.
Which paragraph contains the following information?
Write the correct letter A-I, in boxes 6-8 on your answer sheet.

6 Best adaptable animal survived on the planet.
7 Boundary called Wallace's line found between Asia and Australia.
8 Animal relevance exists between Australia and Africa.

Questions 9-13

Summary

Complete the following summary of the paragraphs of Reading Passage, using **no more than two words** from the Reading Passage for each answer. Write your answers in boxes 9-13 on your answer sheet.

Wegener found that continental drift instead of “land bridge” theory could explain strange species' distribution phenomenon. In his theory, vegetation and wildlife *9*___ intercontinentally. However, Eduard Suess compared the wrinkle of crust to *10*___ of an old apple. Now it is well known that we are living on the planet where there are *11*___ in constant mobile states instead of what Suess described Hot spot in biogeography are switched to concerns between two terms: “*12*___” and “*13*___”

Answer Key：

1	E	2	A	3	D
4	B	5	C	6	B
7	F	8	G	9	migrated
10	withering skin	11	(tectonic) plates	12	dispersalism
13	vicarisanism				

The Sound of Dolphin

A

Each and every dolphin has a different sound just like you and me, a sound that other dolphins recognize as a particular individual. Even a new baby dolphin, (calf), can detect it's mother's whistle within the pod soon after birth. Utilizing their blowholes, air sacks and valves, dolphins can emit a very wide variety of sounds. In fact, the frequency levels range 10 times beyond what humans can hear.

B

This system is called "Echolocation", or "Sonar", just like what a submarine uses to navigate while underwater. Yet the dolphins sonar is much more advanced than human technology and can pin point exact information about if s surroundings ranging from size, distance and even the nature of the object.

C

Millions of years ago, toothed whales developed echolocation, a sensory faculty that enabled them to survive in often murky and dark aquatic environments. It is a process in which an organism probes its environment by emitting sounds and listening to echoes as the sounds bounce off objects in the environment. With sound traveling better in water than electromagnetic, thermal, chemical, or light signals, it was advantageous for dolphins to evolve echolocation, a capability in which acoustic energy is used, in a sense, to see underwater. Synonymous with the term "sonar" (sound navigation and ranging) and used interchangeably, dolphin echolocation is considered to be the most advanced sonar capability, unrivaled by any sonar system on Earth, man-made or natural.

D

Dolphins identify themselves with a signature whistles. However, scientists have found no evidence of a dolphin language. For example, a mother dolphin may whistle to her calf almost continually for several days after giving birth. This acoustic imprinting helps the calf learn to identify its mother. Besides whistles, dolphins produce clicks and sounds that resemble moans, trills, grunts and squeaks. They make these sounds at any time and at considerable depths. Sounds vary in volume, wavelength, frequency and pattern. Dolphins produce sounds ranging from 0.25 to 150kHz. The lower frequency vocalizations (0.25 to 50 kHz) are likely used in social communication. Higher frequency clicks (40 to 150 kHz) are primarily used in echolocation. Dolphins rely heavily on sound production and reception to navigate, communicate, and hunt in dark or murky waters. Under these conditions, sight is of little use. Dolphins can produce clicks and whistles at the same time.

E

As with all toothed whales, a dolphin's larynx does not possess vocal cords, but researchers have theorized that at least some sound production originates from the larynx. Early studies suggested that "whistles" were generated in the larynx while "clicks" were produced in the nasal sac region. Technological advances in bio-acoustic research enable scientists to better explore the nasal region. Studies suggest that a tissue complex in the

nasal region is most likely the site of all sound production. Movements of air in the trachea and nasal sacs probably produce sounds.

F

The process of echolocation begins when dolphins emit very short sonar pulses called clicks, which are typically less than 50-70 millionth of a second long. The clicks are emitted from the melon of the dolphin in a narrow beam. A special fat in the melon called lipid helps to focus the clicks into a beam. The echoes that are reflected off the object are then received by the lower jaws. They enter through certain parts of the lower jaw and are directed to ear bones by lipid fat channels. The characteristics of the echoes are then transmitted direct to the brain.

G

The short echolocation clicks used by dolphins can encode a considerable amount of information on an ensonified object - much more information than is possible from signals of longer duration that are emitted by manned sonar. Underwater sounds can penetrate objects, producing echoes from the portion of the object as well as from other surfaces within the object. This provides dolphins with a way to gain more information than if only a simple reflection occurred at the front of the object.

H

Dolphins are extremely mobile creatures and can therefore direct their sonar signals on an object from many different orientations, with slightly different bits of information being returned at each orientation; and since the echolocation clicks are so brief and numerous, the multiple reflections from internal surfaces return to the animal as distinct entities and are used by the dolphin to distinguish between different types of objects. Since they possess extremely good auditory-spatial memory, it seems that they are able to "remember" all the important information received from the echoes taken from different positions and orientations as they navigate and scan their environment. Dolphins' extremely high mobility and good auditory spatial memory are capabilities that enhance their use of echolocation. With much of the dolphin's large brain (which is slightly larger than the human brain) devoted to acoustic signal processing, we can better understand the evolutionary importance of this extraordinary sensory faculty. Yet no one feature in the process of echolocation is more important than the other. Dolphin sonar must be considered as a complete system, well adapted to the dolphin's overall objective finding prey, avoiding predators, and avoiding dangerous environments.

I

This ideal evolutionary adaptation has contributed to the success of cetacean hunting and feeding and their survival as a species overall. As a result, dolphins are especially good in finding and identifying prey in shallow and noisy coastal waters containing rocks and other objects. By using their sonar ability, dolphins are able to detect and recognize prey that have burrowed up to 1 ½ feet into sandy ocean or river bottoms - a talent that has stirred the imagination (and envy) of designers of manmade sonar.

J

Researchers, documenting the behavior of Atlantic dolphins foraging for buried prey along the banks of Grand Bahama Island, have found that these dolphins, while swimming close to the bottom searching for prey, typically move their heads in a scanning motion, either swinging their snout back and forth or moving their heads in a circular motion as they emit sonar sounds. They have been observed digging as deep as 18 inches into the sand to secure a prey. Such a capability is unparalleled in the annals of human sonar development.

Questions 1-5

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

In boxes 1-5 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

1 Every single dolphin is labeled by a specific sound.

2 The system a dolphin uses as the detector could give a whole picture of the observed objects.

3 Echolocation is a specific system evolving only for animals living in a dim environment.

4 The sounds are made only in the area related to the nose.

5 When producing various forms of sounds, dolphins have the asynchronism as one characteristic.

Questions 6-8

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

Write your answers in boxes 6-8 on your answer sheet.

6 What feature do the sounds deep in the water emitted by dolphins possess?

A diverging

B tri-dimensional

C piercing

D striking

7 Which makes the difference between the dolphins and man when it comes to the treating of vocal messages?

A an acute sense of smell

B a bigger brain

C a flexible positioning system

D a unique organ

8 Which is the undefeatable characteristic the sonar system owned by dolphins compared with the one humans have?

A making more accurate analysis

B hiding the hunted animals

C having the wider range in frequencies

D comprising more components

Questions 9-13

Summary

Complete the following summary of the paragraphs of Reading Passage, using **no more than three words** from the Reading Passage for each answer.

Write your answers in boxes 9-13 on your answer sheet.

Whether 9..... exists or not has not been confirmed yet 10..... is the bond between the baby dolphin and its mother. What's more, 11..... which are like different sounds made by human are also used by dolphins .The sounds are made at certain level of depth within a specific scope from a higher frequency aimed at communicating to a lower one to echolocate. Sounds are vital to dolphins living in deep waters while 12..... is not that imperative. Similar to all toothed whales, vocal cords do not exist in 13..... but it produces some sound. The tissue in the nasal area is perhaps to do with the sound production.

Answer Key：

1	TRUE	2	TRUE	3	NOT GIVEN
4	FALSE	5	FALSE	6	C
7	B	8	B	9	a dolphin language
10	Whistle	11	clicks and sounds	12	sight
13	a dolphin's larynx				

Passage 2

Water Filter

A

An ingenious invention is set to bring clean water to the third world, and while the science may be cutting edge, the materials are extremely down to earth. A handful of clay (n.粘土), yesterday's coffee grounds and some cow manure are the ingredients that could bring clean, safe drinking water to much of the third world.

B

The simple new technology, developed by ANU materials scientist Mr. Tony Flynn, allows water filters to be made from commonly available materials and fired on the ground using cow manure as the source of heat, without the need for a kiln. The filters have been tested and shown to remove common pathogens (disease-producing organisms) including E-coli (n.大肠杆菌). Unlike other water filtering devices, the filters are simple and inexpensive to make. "They are very simple to explain and demonstrate and can be made by anyone, anywhere," says Mr. Flynn. 'They don't require any western technology. AH you need is terracotta clay, a compliant cow and a match."

C

The production of the filters is extremely simple. Take a handful of dry, crushed clay, mix it with a handful of organic material, such as used tea leaves, coffee grounds or rice hulls (n.稻壳), add enough water to make a stiff biscuit-like mixture and form a cylindrical pot that has one end closed, then dry it in the sun. According to Mr. Flynn, used coffee grounds have given the best results to date. Next, surround the pots with straw; put them in a mound of cow manure, light the straw and then top up the burning manure as required. In less than 60 minutes the filters are finished. The walls of the finished pot should be about as thick as an adult's index. The properties of cow manure are vital as the fuel can reach a temperature of 700 degrees in half an hour and will be up to 950 degrees after another 20 to 30 minutes. The manure makes a good fuel because it is very high in organic material that burns readily and quickly; the manure has to be dry and is best used exactly as found in the field, there is no need to break it up or process it any further.

D

"A potter's kiln (n.窑) is an expensive item and can could take up to four or five hours to get up to 800 degrees. It needs expensive or scarce fuel, such as gas or wood to heat it and experience to run it. With no technology, no insulation (n.绝缘、隔热) and nothing other than a pile of cow manure and a match, none of these restrictions apply," Mr. Flynn says.

E

It is also helpful that, like terracotta clay and organic material, cow dung is freely available across the developing world. "A cow is a natural fuel factory. My understanding is that cow dung as a fuel would be pretty much the same wherever you would find it." Just as using manure as a fuel for domestic uses is not a new idea, the porosity of clay is something that potters have known about for years, and something that as a former ceramics lecturer

in the ANU School of Art, Mr. Flynn is well aware of. The difference is that rather than viewing the porous nature of the material as a problem — after all not many people want a pot that won't hold water — his filters capitalize on this property.

F

Other commercial ceramic filters do exist, but, even if available, with prices starting at US$5 each, they are often outside the budgets of most people in the developing world. The filtration process is simple, but effective. The basic principle is that there are passages through the filter that are wide enough for water droplets to pass through, but too narrow for pathogens. Tests with the deadly E-coli bacterium have seen the filters remove 96.4 to 99.8 per cent of the pathogen — well within safe levels. Using only one filter it takes two hours to filter a litre of water. The use of organic material, which burns away leaving cavities after firing, helps produce the potential problems of finer clays that may not let water through and also means that cracks are soon halted. And like clay and cow dung, it is universally available.

G

The invention was born out of a World Vision project involving the Manatuto community in East Timor The charity wanted to help set up a small industry manufacturing water filters, but initial research found the local clay to be too fine — a problem solved by the addition of organic material. While the problems of producing a working ceramic filter in East Timor were overcome, the solution was kiln-based and particular to that community's materials and couldn't be applied elsewhere. Manure firing, with no requirement for a kiln, has made this zero technology approach available anywhere it is needed. With all the components being widely available, Mr. Flynn says there is no reason the technology couldn't be applied throughout the developing world, and with no plans to patent his idea, there will be no legal obstacles to it being adopted in any community that needs it. "Everyone has a right to clean water, these filters have the potential to enable anyone in the world to drink water safely," says Mr. Flynn.

Questions 14-19

Complete the flow chart, using NO MORE THAN TWO WORDS from the Reading Passage for each answer. Write your answers in boxes 14-19 on your answer sheet.

Guide to Making Water Filters

Step one: combination of ***14***..... and organic material, with sufficient ***15***..... to create a thick mixture

Sun dried

Step two: pack ***16***..... around the cylinders

place them in ***17***..... which is as burning fuel

for firing (maximum temperature: ***18***.....)

filter being baked in under ***19***.....

Questions 20-23

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

In boxes 20-23 on your answer sheet, write

20 It takes half an hour for the manure to reach 950 degrees.

21 Clay was initially found to be unsuitable for pot making.

22 Coffee grounds are twice as effective as other materials.

23 E-coli is the most difficult bacteria to combat.

Questions 24-26

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

Write your answers in boxes 24-26 on your answer sheet.

24 When making the pot, the thickness of the wall

A is large enough to let the pathogens to pass.

B varied according to the temperature of the fuel.

C should be the same as an adult's forefinger.

D is not mentioned by Mr. Flynn.

25 what is true about the charity, it

A failed in searching the appropriate materials.

B successfully manufacture a kiln based ceramic filter to be sold worldwide

C found that the local clay arc good enough.

D intended to help build a local filter production factory.

26 Mr. Flynn's design is purposely not being patented

A because he hopes it can be freely used around the world.

B because he doesn't think the technology is perfect enough.

C because there are some legal obstacles.

D because the design has already been applied thoroughly.

Answer Key：

14	clay	15	water	16	straw
17	cow manure	18	950 degrees	19	60 minutes
20	FALSE	21	TRUE	22	NOT GIVEN
23	NOT GIVEN	24	C	25	D
26	A				

What happiness is?

A

Economists accept that if people describe themselves as happy, then they are happy. However, psychologists differentiate between levels of happiness. The most immediate type involves a feeling; pleasure or joy. But sometimes happiness is a judgment that life is satisfying, and does not imply an emotional state. Esteemed psychologist Martin Seligman has spearheaded an effort to study the science of happiness. The bad news is that we're not wired to be happy. The good news is that we can do something about it. Since its origins in a Leipzig laboratory 130 years ago, psychology has had little to say about goodness and contentment. Mostly psychologists have concerned themselves with weakness and misery. There are libraries full of theories about why we get sad, worried, and angry. It hasn't been respectable science to study what happens when lives go well. Positive experiences, such as joy, kindness, altruism and heroism, have mainly been ignored. For every 100 psychology papers dealing with anxiety or depression, only one concerns a positive trait.

B

A few pioneers in experimental psychology bucked the trend. Professor Alice Isen of Cornell University and colleagues have demonstrated how positive emotions make people think faster and more creatively. Showing how easy it is to give people an intellectual boost, Isen divided doctors making a tricky diagnosis into three groups: one received candy, one read humanistic statements about medicine, one was a control group. The doctors who had candy displayed the most creative thinking and worked more efficiently. Inspired by Isen and others, Seligman got stuck in. He raised millions of dollars of research money and funded 50 research groups involving 150 scientists across the world. Four positive psychology centres opened, decorated in cheerful colours and furnished with sofas and baby-sitters. There were get-togethers on Mexican beaches where psychologists would snorkel and eat fajitas, then form "pods" to discuss subjects such as wonder and awe. A thousand therapists were coached in the new science.

C

But critics are demanding answers to big questions. What is the point of defining levels of happiness and classifying the virtues? Aren't these concepts vague and impossible to pin down? Can you justify spending funds to research positive states when there are problems such as famine, flood and epidemic depression to be solved? Seligman knows his work can be belittled alongside trite notions such as "the power of positive thinking". His plan to stop the new science floating "on the waves of self- improvement fashions" is to make sure it is anchored to positive philosophy above, and to positive biology below.

D

And this takes us back to our evolutionary past. Homo sapiens evolved during the Pleistocene era (1.8 m to 10,000 years ago), a time of hardship and turmoil. It was the Ice Age, and our ancestors endured long freezes as glaciers formed, then ferocious floods as the ice masses melted. We shared the planet with terrifying creatures such as mammoths, elephant-sized ground sloths and sabre-toothed cats. But by the end of the Pleistocene, all these animals were extinct. Humans, on the other hand, had evolved large brains and

used their intelligence to make fire and sophisticated tools, to develop talk and social rituals. Survival in a time of adversity forged our brains into a persistent mould. Professor Seligman says: "Because our brain evolved during a time of ice, flood and famine, we have a catastrophic brain. The way the brain works is looking for what's wrong. The problem is, that worked in the Pleistocene era. It favoured you, but it doesn't work in the modern world."

E

Although most people rate themselves as happy, there is a wealth of evidence to show that negative thinking is deeply ingrained in the human psyche. Experiments show that we remember failures more vividly than successes. We dwell on what went badly, not what went well. Of the six universal emotions, four anger, fear, disgust and sadness are negative and only one, joy, is positive. (The sixth, surprise, is psychologist Daniel Nettle, author of Happiness, and one of the Royal Institution lecturers, the negative emotions each tell us "something bad has happened" and suggest a different course of action.

F

What is it about the structure of the brain that underlies our bias towards negative thinking? And is there a biology of joy? At Iowa University, neuroscientists studied what happens when people are shown pleasant and unpleasant pictures. When subjects see landscapes or dolphins playing, part of the frontal lobe of the brain becomes active. But when they are shown unpleasant images a bird covered in oil, or a dead soldier with part of his face missing the response comes from more primitive parts of the brain. The ability to feel negative emotions derives from an ancient danger-recognition system formed early in the brain's evolution. The pre-frontal cortex, which registers happiness, is the part used for higher thinking, an area that evolved later in human history.

G

Our difficulty, according to Daniel Nettle, is that the brain systems for liking and wanting are separate. Wanting involves two ancient regions the amygdala (扁导体) and the nucleus accumbens (大脑区) that communicate using the chemical dopamine (多巴酚) to form the brain's reward system. They are involved in anticipating the pleasure of eating and in addiction to drugs. A rat will press a bar repeatedly, ignoring sexually available partners, to receive electrical stimulation of the "wanting" parts of the brain. But having received brain stimulation, the rat eats more but shows no sign of enjoying the food it craved. In humans, a drug like nicotine produces much craving but little pleasure.

H

In essence, what the biology lesson tells us is that negative emotions are fundamental to the human condition, and it's no wonder they are difficult to eradicate. At the same time, by a trick of nature, our brains are designed to crave but never really achieve lasting happiness.

Questions 14-20

The reading Passage has seven paragraphs A-H.

Which paragraph contains the following information?

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

14 An experiment involving dividing several groups one of which received positive icon

15 Review of a poorly researched psychology area

16 Contrast being made about the brains' action as response to positive or negative stimulus

17 The skeptical attitude toward the research seemed to be a waste of fund

18 A substance that produces much wanting instead of much liking

19 A conclusion that lasting happiness are hardly obtained because of the nature of brains

20 One description that listed the human emotional categories.

Questions 21-25

Complete the following summary of the paragraphs of Reading Passage, using no more than four words from the Reading Passage for each answer. Write your answers in boxes 21-25 on your answer sheet.

A few pioneers in experimental psychology study what happens when lives go well. Professor Alice divided doctors, making a tricky experiment into three groups: beside the one control group, the other two either are asked to read humanistic statements about drugs, or received 21..... The latter displayed the most creative thinking and worked more efficiently. Since critics are questioning the significance of the 22..... for both levels of happiness and classification for the virtues. Professor Seligman countered in an evolutional theory: survival in a time of adversity forged our brains into the way of thinking for what's wrong because we have a 23.....

There is bountiful of evidence to show that negative thinking is deeply built in the human psyche. Later, at Iowa University, neuroscientists studied the active parts in brains to contrast when people are shown pleasant and unpleasant pictures. When positive images like 24..... are shown, part of the frontal lobe of the brain becomes active. But when they are shown unpleasant image, the response comes from 25..... of the brain.

Questions 26

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

Write your answers in boxes 26 on your answer sheet.

according to Daniel Nettle in the last two paragraphs, what is true as the scientists can tell us about happiness

A Brain systems always mix liking and wanting together.

B Negative emotions can be easily rid of if we think positively.

C Happiness is like nicotine we are craving for but get little pleasure.

D The inner mechanism of human brains does not assist us to achieve durable happiness.

Answer Key：

14	B	15	A	16	F
17	C	18	G	19	H
20	E	21	Candy	22	definition
23	a catastrophic brain			24	landscapes or dolphins playing
25	(more) primitive parts			26	D

Passage 3

The Exploration of Mars

A

In 1877, Giovanni Schiaparelli, an Italian astronomer, made drawings and maps of the Martian surface that suggested strange features. The images from telescopes at this time were not as sharp as today's. Schiaparelli said he could see a network of lines, or canali. In 1894, an American astronomer, Percival Lowell, made a series of observations of Mars from his own observations of Mars from his own observatory at Flagstaff, Arizona, USA. Lowell was convinced a great network of canals had been dug to irrigate crops for the Martian race! He suggested that each canal had fertile vegetation on either side, making them noticeable from Earth. Drawings and globes he made show a network of canals and oases all over the planet.

B

The idea that there was intelligent life on Mars gained strength in the late 19th century. In 1898, H.G. Wells wrote a science fiction classic, The War of the Worlds about an invading force of Martians who try to conquer Earth. They use highly advanced technology (advanced for 1898) to crush human resistance in their path. In 1917, Edgar Rice Burroughs wrote the first in a series of 11 novels about Mars. Strange beings and rampaging Martian monsters gripped the public's imagination. A radio broadcast by Orson Welles on Halloween night in 1938 of The War of the Worlds caused widespread panic across America. People ran into the streets in their pyjamas-millions believed the dramatic reports of a Martian invasion.

C

Probes are very important to our understanding of other planets. Much of our recent knowledge comes from these robotic missions into space. The first images sent back from Mars came from Mariner 4 in July 1965. They showed a cratered and barren landscape, more like the surface of our moon than Earth. In 1969, Mariners 6 and 7 were launched and took 200 photographs of Mars's southern hemisphere and pole on fly-by missions. But these showed little more information. In 1971, Mariner 9's mission was to orbit the planet every 12 hours. In 1975, The USA sent two Viking probes to the planet, each with a lander and an orbiter. The Landers had sampler arms to scoop up Maritain rocks and did experiments to try and find signs of life. Although no life was found, they sent back the first colour pictures of the planet's surface and atmosphere from pivoting cameras.

D

The Martian meteorite found in Earth aroused doubts to the above analysis. ALH84001 meteorite (陨石) was discovered in December 1984 in Antarctica, by members of the ANSMET project; The sample was ejected from Mars about 17 million years ago and spent 11,000 years in or on the Antarctic ice sheets. Composition analysis by NASA revealed a kind of magnetite that on Earth, is only found in association with certain microorganisms. Some structures resembling the mineralized casts of terrestrial bacteria and their appendages fibrils or by-products occur in the rims of carbonate globules and pre-terrestrial aqueous alteration regions. The size and shape of the objects is consistent

with Earthly fossilized nanobacteria (纳米细菌), but the existence of nanobacteria itself is still controversial.

E

In 1965, the Mariner 4 probe discovered that Mars had no global magnetic field that would protect the planet from potentially life-threatening cosmic radiation (宇宙射线) and solar radiation; observations made in the late 1990s by the Mars Global Surveyor confirmed this discover)'. Scientists speculate that the lack of magnetic shielding helped the solar wind blow away much of Mars's atmosphere over the course of several billion years. After mapping cosmic radiation levels at various depths on Mars, researchers have concluded that any life within the first several meters of the planet's surface would be killed by lethal doses of cosmic radiation. In 2007, it was calculated that DNA and RNA damage by cosmic radiation would limit life on Mars to depths greater than 7.5 metres below the planet's surface. Therefore, the best potential locations for discovering life on Mars may be at subsurface environments that have not been studied yet. Disappearance of the magnetic field may played an significant role in the process of Martian climate change. According to the valuation of the scientists, the climate of Mars gradually transits from warm and wet to cold and dry after magnetic field vanished.

F

NASA's recent missions have focused on another question: whether Mars held lakes or oceans of liquid water on its surface in the ancient past. Scientists have found hematite, a mineral that forms in the presence of water. Thus, the mission of the Mars Exploration Rovers of 2004 was not to look for present or past life, but for evidence of liquid water on the surface of Mars in the planet's ancient past. Liquid water, necessary for Earth life and for metabolism as generally conducted by species on Earth, cannot exist on the surface of Mars under its present low atmospheric pressure and temperature, except at the lowest shaded elevations for short periods and liquid water does not appear at the surface itself. In March 2004, NASA announced that its rover Opportunity had discovered evidence that Mars was, in the ancient past, a wet planet. This had raised hopes that evidence of past life might be found on the planet today. ESA confirmed that the Mars Express orbiter had directly detected huge reserves of water ice at Mars' south pole in January 2004.

G

Researchers from the Center of Astrobiology (Spain) and the Catholic University of the North in Chile have found an 'oasis' of microorganisms two meters below the surface of the Atacama Desert, SOLID, a detector for signs of life which could be used in environments similar to subsoil on Mars. "We have named it a 'microbial oasis' because we found microorganisms developing in a habitat that was rich in rock salt and other highly hygroscopic compounds that absorb water" explained Victor Parro. researcher from the Center of Astrobiology in Spain. "If there are similar microbes on Mars or remains in similar conditions to the ones we have found in Atacama, we could detect them with instruments like SOLID" Parro highlighted.

H

Even more intriguing, however, is the alternative scenario by Spanish scientists: If those

samples could be found to that use DNA, as Earthly life does, as their genetic code. It is extremely unlikely that such a highly specialised, complex molecule like DNA could have evolved separately on the two planets, indicating that there must be a common origin for Martian and Earthly life. Life based on DNA first appeared on Mars and then spread to Earth, where it then evolved into the myriad (无数的) forms of plants and creatures that exist today. If this was found to be the case, we would have to face the logical conclusion: we are all Martian. If not, we would continue to search the life of signs.

Questions 27-32

The reading Passage has seven paragraphs A-H.

Which paragraph contains the following information?

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

27 Martian evidence on Earth

28 Mars and Earth may share the same life origin

29 certain agricultural construction was depicted specifically

30 the project which aims to identify life under similar condition of Mars

31 Mars had experienced terrifying climate transformation

32 Attempts in scientific investigation to find liquid water

Questions 33-36

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

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

33 How did Percival Lowell describe Mars in this passage?

A Perfect observation location is in Arizona.

B Canals of Mars are broader than that of the earth.

C Dedicated water and agriculture trace is similar to the earth.

D Actively moving Martian lives are found by observation.

34 How did people change their point of view towards Mars from 19tlt century?

A They experienced Martian attack.

B They learned knowledge of mars through some literature works.

C They learned new concept by listening famous radio program.

D They attended lectures given by famous writers.

35 In 1960s, which information is correct about Mars by a number of Probes sent to the space?

A It has a landscape full of rock and river

B It was not as vivid as the earth

C It contained the same substance as in the moon

D It had different images from the following probes

36 What is the implication of project proceeded by technology called SOLID in Atacama Desert?

A It could be employed to explore organisms under Martian condition.

B This technology could NOT be used to identify life on similar condition of Mars.

C Atacama Desert is the only place that has a suitable environment for organisms.

D Life had not yet been found yet in Atacama Desert.

Questions 37-40

Do the following statements agree with the information given 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 Technology of Martian creature was superior than what human had at that time in every field according to The War of the Worlds.

38 Proof sent by Viking probes has not been challenged yet.

39 Analysis on meteorite from Mars found a substance which is connected to some germs.

40 According to Victor Parro, their project will be deployed on Mars after they identified DNA substance on earth.

Answer Key：

27 D	28 H	29 A
30 G	31 E	32 F
33 C	34 B	35 B
36 B	37 NOT GIVEN	38 FALSE
39 TRUL	40 NOT GIVEN	

Soviet's New Working Week

Historian investigates how Stalin changed the calendar to keep the Soviet people continually at work.

A

"There are no fortresses that Bolsheviks cannot storm". With these words, Stalin expressed the dynamic self-confidence of the Soviet Union's Five Year Plan: weak and backward Russia was to turn overnight into a powerful modern industrial country. Between 1928 and 1932, production of coal, iron and steel increased at a fantastic rate, and new industrial cities sprang up, along with the world's biggest dam. Everyone's life was affected, as collectivised fanning drove millions from the land to swell the industrial proletariat. Private enterprise disappeared in city and country, leaving the State supreme under the dictatorship of Stalin. Unlimited enthusiasm was the mood of the day, with the Communists believing that iron will and hard-working manpower alone would bring about a new world.

B

Enthusiasm spread to time itself, in the desire to make the state a huge efficient machine, where not a moment would be wasted, especially in the workplace. Lenin had already been intrigued by the ideas of the American Frederick Winslow Taylor (1856-1915), whose time-motion studies had discovered ways of stream-lining effort so that every worker could produce the maximum. The Bolsheviks were also great admirers of Henry Ford's assembly line mass production and of his Fordson tractors that were imported by the thousands. The engineers who came with them to train their users helped spread what became a real cult of Ford. Emulating and surpassing such capitalist models formed part of the training of the new Soviet Man, a heroic figure whose unlimited capacity for work would benefit everyone in the dynamic new society. All this culminated in the Plan, which has been characterized as the triumph of the machine, where workers would become supremely efficient robot-like creatures.

C

Yet this was Communism whose goals had always included improving the lives of the proletariat. One major step in that direction was the sudden announcement in 1927 that reduced the working day from eight to seven hours. In January 1929, all Indus-tries were ordered to adopt the shorter day by the end of the Plan. Workers were also to have an extra hour off on the eve of Sundays and holidays. Typically though, the state took away more than it gave, for this was part of a scheme to increase production by establishing a three-shift system. This meant that the factories were open day and night and that many had to work at highly undesirable hours.

D

Hardly had that policy been announced, though, than Yuri Larin, who had been a close associate of Lenin and architect of his radical economic policy, came up with an idea for even greater efficiency. Workers were free and plants were closed on Sundays. Why not abolish that wasted day by instituting a continuous work week so that the machines could operate to their full capacity every day of the week? When Larin presented his idea to the Congress of Soviets in May 1929, no one paid much attention. Soon after, though, he got

the ear of Stalin, who approved. Suddenly, in June, the Soviet press was filled with articles praising the new scheme. In August, the Council of Peoples' Commissars ordered that the continuous work week be brought into immediate effect, during the height of enthusiasm for the Plan, whose goals the new schedule seemed guaranteed to forward.

E

The idea seemed simple enough, but turned out to be very complicated in practice. Obviously, the workers couldn't be made to work seven days a week, nor should their total work hours be increased. The Solution was ingenious: a new five-day week would have the workers on the job for four days, with the fifth day free; holidays would be reduced from ten to five, and the extra hour off on the eve of rest days would be abolished. Staggering the rest-days between groups of workers meant that each worker would spend the same number of hours on the job, but the factories would be working a full 360 days a year instead of 300. The 360 divided neatly into 72 five-day weeks. Workers in each establishment (at first factories, then stores and offices) were divided into five groups, each assigned a colour which appeared on the new Uninterrupted Work Week calendars distributed all over the country. Colour-coding was a valuable mnemonic device, since workers might have trouble remembering what their day off was going to be, for it would change every week. A glance at the colour on the calendar would reveal the free day, and allow workers to plan their activities. This system, however, did not apply to construction or seasonal occupations, which followed a six-day week, or to factories or mines which had to close regularly for maintenance: they also had a six-day week, whether interrupted (with the same day off for everyone) or continuous. In all cases, though, Sunday was treated like any other day.

F

Official propaganda touted the material and cultural benefits of the new scheme. Workers would get more rest; production and employment would increase (for more workers would be needed to keep the factories running continuously); the standard of living would improve. Leisure time would be more rationally employed, for cultural activities (theatre, clubs, sports) would no longer have to be crammed into a weekend, but could flourish every day, with their facilities far less crowded. Shopping would be easier for the same reasons. Ignorance and superstition, as represented by organized religion, would suffer a mortal blow, since 80 per cent of the workers would be on the job on any given Sunday. The only objection concerned the family, where normally more than one member was working: well, the Soviets insisted, the narrow family was far less important than the vast common good and besides, arrangements could be made for husband and wife to share a common schedule. In fact, the regime had long wanted to weaken or sideline the two greatest potential threats to its total dominance: organized religion and the nuclear family. Religion succumbed, but the family, as even Stalin finally had to admit, proved much more resistant.

G

The continuous work week, hailed as a Utopia where time itself was conquered and the sluggish Sunday abolished forever, spread like an epidemic. According to official figures, 63 percent of industrial workers were so employed by April 1930; in June, all industry was

ordered to convert during the next year. The fad reached its peak in October when it affected 73 per cent of workers. In fact, many managers simply claimed that their factories had gone over to the new week, without actually applying it. Conforming to the demands of the Plan was important; practical matters could wait. By then, though, problems were becoming obvious. Most serious (though never officially admitted), the workers hated it. Coordination of family schedules was virtually impossible and usually ignored, so husbands and wives only saw each other before or after work; rest days were empty without any loved ones to share them — even friends were likely to be on a different schedule. Confusion reigned: the new plan was introduced haphazardly, with some factories operating five-, six- and seven-day weeks at the same time, and the workers often not getting their rest days at all.

H

The Soviet government might have ignored all that (It didn't depend on public approval), but the new week was far from having the vaunted effect on production. With the complicated rotation system, the work teams necessarily found themselves doing different kinds of work in successive weeks. Machines, no longer consistently in the hands of people who knew how to tend them, were often poorly maintained or even broken. Workers lost a sense of responsibility for the special tasks they had normally performed.

I

As a result, the new week started to lose ground. Stalin's speech of June 1931, which criticised the "depersonalised labor", its too hasty application had brought, marked the beginning of the end. In November, the government ordered the widespread adoption of the six-day week, which had its own calendar, with regular breaks on the 6th, 12th, 18th, 24th, and 30th, with Sunday usually as a working day. By July 1935, only 26 per cent of workers still followed the continuous schedule, and the six-day week was soon on its way out. Finally, in 1940, as part of the general reversion to more traditional methods, both the continuous five-day week and the novel six-day week were abandoned, and Sunday returned as the universal day of rest. A bold but typically ill-conceived experiment was at an end.

Questions 27-34

Reading Passage has nine paragraphs A-I.

Choose the correct heading for each paragraph from the list of headings below. Write the correct number i-xii in boxes 27-34 on your answer sheet.

List of Headings	
i	Benefits of the new scheme and its resistance
ii	Making use of the once wasted weekends
iii	Cutting work hours for better efficiency
iv	Optimism of the great future
v	Negative effects on production itself
vi	Soviet Union's five year plan
vii	The abolishment of the new work-week scheme
viii	The Ford model
ix	Reaction from factory workers and their families
x	The color-coding scheme
xi	Establishing a three-shift system
xii	Foreign inspiration

27 Paragraph A

28 Paragraph B

Example	***Answer***
Paragraph C	**iii**

29 Paragraph D

30 Paragraph E

31 Paragraph F

32 Paragraph G

33 Paragraph H

34 Paragraph I

Questions 35-37

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

Write your answers in boxes 35-37 on your answer sheet.

35 According to paragraph A, Soviet's five year plan was a success because

A Bolsheviks built a strong fortress.

B Russia was weak and backward.

C industrial production increased.

D Stalin was confident about Soviet's potential.

36 Daily working hours were cut from eight to seven to

A improve the lives of all people.

B boost industrial productivity.

C get rid of undesirable work hours.

D change the already establish three-shift work system.

37 Many factory managers claimed to have complied with the demands of the new work week because

A they were pressurized by the state to do so.

B they believed there would not be any practical problems.
C they were able to apply it.
D workers hated the new plan.

Questions 38-40

*Answer the questions below using **NO MORE THAN TWO WORDS** from the passage for each answer.*

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

38 Whose idea of continuous work week did Stalin approve and helped to implement?
39 What method was used to help workers to remember the rotation of their off days?
40 What was the most resistant force to the new work week scheme?

Answer Key：

27	iv	28	xii	29	ii
30	x	31	i	32	ix
33	v	34	vii	35	C
36	B	37	A	38	Yuri Larin
39	Colour-coding/ colour			40	family