IELTS TUTOR lưu ý:

1. Làm tất cả 4 bộ đề chứ không chỉ làm một đề rồi nộp giáo viên nhé, nộp giáo viên tất cả 4 đề để có thể kiểm tra band điểm hiện tại của mình chính xác nhất.

2. Làm bài vào Answer Sheet IELTS Reading của IELTS TUTOR.

3. Canh đúng 1 tiếng cho 1 đề, tức là 4 đề sẽ là 4 tiếng.

4. Không tra từ điển trong lúc làm bài

5. Không hiểu gì trong lúc làm bài, ghi chú lại để inbox hỏi giáo viên hoặc ghi lại ngay trên answer sheet mình gặp khó khăn chỗ câu nào để giáo viên giải đáp kĩ.

1. Đề số 1

1.1 READING PASSAGE 1

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

MAKING TIME FOR SCIENCE

Chronobiology might sound a little futuristic – like something from a science fiction novel, perhaps – but it's actually a field of study that concerns one of the oldest processes life on this planet has ever known: short-term rhythms of time and their effect on flora and fauna.

This can take many forms. Marine life, for example, is influenced by tidal patterns. Animals tend to be active or inactive depending on the position of the sun or moon. Numerous creatures, humans included, are largely diurnal – that is, they like to come out during the hours of sunlight. Nocturnal animals, such as bats and possums, prefer to forage by night. A third group are known as crepuscular: they thrive in the lowlight of dawn and dusk and remain inactive at other hours.

When it comes to humans, chronobiologists are interested in what is known as the circadian rhythm. This is the complete cycle our bodies are naturally geared to undergo within the passage of a twenty-four hour day. Aside from sleeping at night and waking during the day, each cycle involves many other factors such as changes in blood pressure and body temperature. Not everyone has an identical circadian rhythm. 'Night people', for example, often describe how they find it very hard to operate during the morning, but become alert and focused

by evening. This is a benign variation within circadian rhythms known as a chronotype.

Scientists have limited abilities to create durable modifications of chronobiological demands. Recent therapeutic developments for humans such as artificial light machines and melatonin administration can reset our circadian rhythms, for example, but our bodies can tell the difference and health suffers when we breach these natural rhythms for extended periods of time. Plants appear no more malleable in this respect; studies demonstrate that vegetables grown in season and ripened on the tree are far higher in essential nutrients than those grown in greenhouses and ripened by laser.

Knowledge of chronobiological patterns can have many pragmatic implications for our day-to-day lives. While contemporary living can sometimes appear to subjugate biology – after all, who needs circadian rhythms when we have caffeine pills, energy drinks, shift work and cities that never sleep? – keeping in synch with our body clock is important.

The average urban resident, for example, rouses at the eye-blearing time of 6.04 a.m., which researchers believe to be far too early. One study found that even rising at 7.00 a.m. has deleterious effects on health unless exercise is performed for 30 minutes afterward. The optimum moment has been whittled down to 7.22 a.m.; muscle aches, headaches and moodiness were reported to be lowest by participants in the study who awoke then.

Once you're up and ready to go, what then? If you're trying to shed some extra pounds, dieticians are adamant: never skip breakfast. This disorients your circadian rhythm and puts your body in starvation mode. The recommended course of action is to follow an intense workout with a carbohydrate-rich breakfast; the other way round and weight loss results are not as pronounced.

Morning is also great for breaking out the vitamins. Supplement absorption by the body is not temporal-dependent, but naturopath Pam Stone notes that the extra boost at breakfast helps us get energised for the day ahead. For improved absorption, Stone suggests pairing supplements with a food in which they are soluble and steering clear of caffeinated beverages. Finally, Stone warns to take care with storage; high potency is best for absorption, and warmth and humidity are known to deplete the potency of a supplement.

After-dinner espressos are becoming more of a tradition – we have the Italians to thank for that – but to prepare for a good night's sleep we are better off putting the brakes on caffeine consumption as early as 3 p.m. With a seven hour half-life, a cup of coffee containing 90 mg of caffeine taken at this hour could still leave 45 mg of caffeine in your nervous system at ten o'clock that evening. It is essential that, by the time you are ready to sleep, your body is rid of all traces.

Evenings are important for winding down before sleep; however, dietician Geraldine Georgeou warns that an after-five carbohydrate-fast is more cultural myth than chronobiological demand. This will deprive your body of vital energy needs. Overloading your gut could lead to indigestion, though. Our digestive tracts do not shut down for the night entirely, but their work slows to a crawl as our bodies prepare for sleep. Consuming a modest snack should be entirely sufficient.

Questions 1–7

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

In boxes 1–7 on your answer sheet, write:

TRUE *if the statement agrees with the information*

FALSE *if the statement contradicts the information*

NOT GIVEN *if there is no information on this*

1. Chronobiology is the study of how living things have evolved over time.

2. The rise and fall of sea levels affects how sea creatures behave.

3. Most animals are active during the daytime.

4. Circadian rhythms identify how we do different things on different days.

5. A 'night person' can still have a healthy circadian rhythm.

6. New therapies can permanently change circadian rhythms without causing harm.

7. Naturally-produced vegetables have more nutritional value.

Questions 8–13

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

Write the correct letter in boxes 8–13 on your answer sheet.

8. What did researchers identify as the ideal time to wake up in the morning?

A. 6.04

B. 7.00

C. 7.22

D. 7.30

9. In order to lose weight, we should

A. avoid eating breakfast

B. eat a low carbohydrate breakfast

C. exercise before breakfast

D. exercise after breakfast

10. Which is NOT mentioned as a way to improve supplement absorption?

A. avoiding drinks containing caffeine while taking supplements

B. taking supplements at breakfast

C. taking supplements with foods that can dissolve them

D. storing supplements in a cool, dry environment

11. The best time to stop drinking coffee is

A. mid-afternoon

B. 10 p.m.

C. only when feeling anxious

D. after dinner

12. In the evening, we should

A. stay away from carbohydrates

B. stop exercising

C. eat as much as possible

D. eat a light meal

13. Which of the following phrases best describes the main aim of Reading Passage 1?

A. to suggest healthier ways of eating, sleeping and exercising

B. to describe how modern life has made chronobiology largely irrelevant

C. to introduce chronobiology and describe some practical applications

D. to plan a daily schedule that can alter our natural chronobiological rhythms

1.2 READING PASSAGE 2

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

The Triune[1] Brain

[1] *Triune = three-in-one*

The first of our three brains to evolve is what scientists call the reptilian cortex. This brain sustains the elementary activities of animal survival such as respiration, adequate rest and a beating heart. We are not required to consciously "think" about these activities. The reptilian cortex also houses the "startle centre", a mechanism that facilitates swift reactions to unexpected occurrences in our surroundings. That panicked lurch you experience when a door slams shut somewhere in the house, or the heightened awareness you feel when a twig cracks in a nearby bush while out on an evening stroll are both examples of the reptilian cortex at work. When it comes to our interaction with others, the reptilian brain offers up only the most basic impulses: aggression, mating, and territorial defence. There is no great difference, in this sense, between a crocodile defending its spot along the river and a turf war between two urban gangs.

Although the lizard may stake a claim to its habitat, it exerts total indifference toward the well-being of its young. Listen to the anguished squeal of a dolphin separated from its pod or witness the sight of elephants mourning their dead, however, and it is clear that a new development is at play. Scientists have identified this as the limbic cortex. Unique to mammals, the limbic cortex impels creatures to nurture their offspring by delivering feelings of tenderness and warmth to the parent when children are nearby. These same sensations also

cause mammals to develop various types of social relations and kinship networks. When we are with others of "our kind" – be it at soccer practice, church, school or a nightclub – we experience positive sensations of togetherness, solidarity and comfort. If we spend too long away from these networks, then loneliness sets in and encourages us to seek companionship.

Only human capabilities extend far beyond the scope of these two cortexes. Humans eat, sleep and play, but we also speak, plot, rationalise and debate finer points of morality. Our unique abilities are the result of an expansive third brain – the neocortex – which engages with logic, reason and ideas. The power of the neocortex comes from its ability to think beyond the present, concrete moment. While other mammals are mainly restricted to impulsive actions (although some, such as apes, can learn and remember simple lessons), humans can think about the "big picture". We can string together simple lessons (for example, an apple drops downwards from a tree; hurting others causes unhappiness) to develop complex theories of physical or social phenomena (such as the laws of gravity and a concern for human rights).

The neocortex is also responsible for the process by which we decide on and commit to particular courses of action. Strung together over time, these choices can accumulate into feats of progress unknown to other animals. Anticipating a better grade on the following morning's exam, a student can ignore the limbic urge to socialise and go to sleep early instead. Over three years, this ongoing sacrifice translates into a first class degree and a scholarship to graduate school; over a lifetime, it can mean groundbreaking contributions to human knowledge and development. The ability to sacrifice our drive for immediate satisfaction in order to benefit later is a product of the neocortex.

Understanding the triune brain can help us appreciate the different natures of brain damage and psychological disorders. The most devastating form of brain

damage, for example, is a condition in which someone is understood to be brain dead. In this state a person appears merely unconscious – sleeping, perhaps – but this is illusory. Here, the reptilian brain is functioning on autopilot despite the permanent loss of other cortexes.

Disturbances to the limbic cortex are registered in a different manner. Pups with limbic damage can move around and feed themselves well enough but do not register the presence of their littermates. Scientists have observed how, after a limbic lobotomy[2] , "one impaired monkey stepped on his outraged peers as if treading on a log or a rock". In our own species, limbic damage is closely related to sociopathic behaviour. Sociopaths in possession of fully-functioning neocortexes are often shrewd and emotionally intelligent people but lack any ability to relate to, empathise with or express concern for others.

[2] *Lobotomy = surgical cutting of brain nerves*

One of the neurological wonders of history occurred when a railway worker named Phineas Gage survived an incident during which a metal rod skewered his skull, taking a considerable amount of his neocortex with it. Though Gage continued to live and work as before, his fellow employees observed a shift in the equilibrium of his personality. Gage's animal propensities were now sharply pronounced while his intellectual abilities suffered; garrulous or obscene jokes replaced his once quick wit. New findings suggest, however, that Gage managed to soften these abrupt changes over time and rediscover an appropriate social manner. This would indicate that reparative therapy has the potential to help patients with advanced brain trauma to gain an improved quality of life.

Questions 14–22

Classify the following as typical of

A. the reptilian cortex

B. the limbic cortex

C. the neocortex

Write the correct letter, **A**, **B** or **C**, in boxes 14–22 on your answer sheet.

14. giving up short-term happiness for future gains

15. maintaining the bodily functions necessary for life

16. experiencing the pain of losing another

17. forming communities and social groups

18. making a decision and carrying it out

19. guarding areas of land

20. developing explanations for things

21. looking after one's young

22. responding quickly to sudden movement and noise

Questions 23–26

Complete the sentences below.

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

Write your answers in boxes 23–26 on your answer sheet.

23. A person with only a functioning reptilian cortex is known as …….

24. …… in humans is associated with limbic disruption.

25. An industrial accident caused Phineas Gage to lose part of his …….

26. After his accident, co-workers noticed an imbalance between Gage's …… and higher-order thinking.

1.3 READING PASSAGE 3

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

HELIUM'S FUTURE UP IN THE AIR

A. In recent years we have all been exposed to dire media reports concerning the impending demise of global coal and oil reserves, but the depletion of another key nonrenewable resource continues without receiving much press at all. Helium – an inert, odourless, monatomic element known to lay people as the substance that makes balloons float and voices squeak when inhaled – could be gone from this planet within a generation.

B. Helium itself is not rare; there is actually a plentiful supply of it in the cosmos. In fact, 24 per cent of our galaxy's elemental mass consists of helium, which makes it the second most abundant element in our universe. Because of its lightness, however, most helium vanished from our own planet many years ago. Consequently, only a miniscule proportion – 0.00052%, to be exact – remains in earth's atmosphere. Helium is the by-product of millennia of radioactive decay from the elements thorium and uranium. The helium is mostly trapped in subterranean natural gas bunkers and commercially extracted through a method known as fractional distillation.

C. The loss of helium on Earth would affect society greatly. Defying the perception of it as a novelty substance for parties and gimmicks, the element actually has many vital applications in society. Probably the most well known commercial usage is in airships and blimps (non-flammable helium replaced hydrogen as the lifting gas du jour after the Hindenburg catastrophe in 1932, during which an airship burst into flames and crashed to the ground killing some

passengers and crew). But helium is also instrumental in deep-sea diving, where it is blended with nitrogen to mitigate the dangers of inhaling ordinary air under high pressure; as a cleaning agent for rocket engines; and, in its most prevalent use, as a coolant for superconducting magnets in hospital MRI (magnetic resonance imaging) scanners.

D. The possibility of losing helium forever poses the threat of a real crisis because its unique qualities are extraordinarily difficult, if not impossible to duplicate (certainly, no biosynthetic ersatz product is close to approaching the point of feasibility for helium, even as similar developments continue apace for oil and coal). Helium is even cheerfully derided as a "loner" element since it does not adhere to other molecules like its cousin, hydrogen. According to Dr. Lee Sobotka, helium is the "most noble of gases, meaning it's very stable and non-reactive for the most part … it has a closed electronic configuration, a very tightly bound atom. It is this coveting of its own electrons that prevents combination with other elements'. Another important attribute is helium's unique boiling point, which is lower than that for any other element. The worsening global shortage could render millions of dollars of high-value, life-saving equipment totally useless. The dwindling supplies have already resulted in the postponement of research and development projects in physics laboratories and manufacturing plants around the world. There is an enormous supply and demand imbalance partly brought about by the expansion of high-tech manufacturing in Asia.

E. The source of the problem is the Helium Privatisation Act (HPA), an American law passed in 1996 that requires the U.S. National Helium Reserve to liquidate its helium assets by 2015 regardless of the market price. Although intended to settle the original cost of the reserve by a U.S. Congress ignorant of its ramifications, the result of this fire sale is that global helium prices are so

artificially deflated that few can be bothered recycling the substance or using it judiciously. Deflated values also mean that natural gas extractors see no reason to capture helium. Much is lost in the process of extraction. As Sobotka notes: "[t]he government had the good vision to store helium, and the question now is: Will the corporations have the vision to capture it when extracting natural gas, and consumers the wisdom to recycle? This takes long-term vision because present market forces are not sufficient to compel prudent practice". For Nobel-prize laureate Robert Richardson, the U.S. government must be prevailed upon to repeal its privatisation policy as the country supplies over 80 per cent of global helium, mostly from the National Helium Reserve. For Richardson, a twenty- to fifty-fold increase in prices would provide incentives to recycle.

F. A number of steps need to be taken in order to avert a costly predicament in the coming decades. Firstly, all existing supplies of helium ought to be conserved and released only by permit, with medical uses receiving precedence over other commercial or recreational demands. Secondly, conservation should be obligatory and enforced by a regulatory agency. At the moment some users, such as hospitals, tend to recycle diligently while others, such as NASA, squander massive amounts of helium. Lastly, research into alternatives to helium must begin in earnest.

Questions 27–31

Reading Passage 3 has six paragraphs, **A–F**.

Which paragraph contains the following information?

Write the correct letter, **A–F**, in boxes 27–31 on your answer sheet.

27. a use for helium which makes an activity safer

28. the possibility of creating an alternative to helium

29. a term which describes the process of how helium is taken out of the ground

30. a reason why users of helium do not make efforts to conserve it

31. a contrast between helium's chemical properties and how non-scientists think about it

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. Helium chooses to be on its own.

33. Helium is a very cold substance.

34. High-tech industries in Asia use more helium than laboratories and manufacturers in other parts of the world.

35. The US Congress understood the possible consequences of the HPA.

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.

Sobotka argues that big business and users of helium need to help look after helium stocks because **36** **……..** will not be encouraged through buying and selling alone. Richardson believes that the **37** **……..** needs to be withdrawn, as the U.S. provides most of the world's helium. He argues that higher costs would mean people have **38** **……..** to use the resource many times over.

People should need a **39** **……..** to access helium that we still have. Furthermore, a **40** **……..** should ensure that helium is used carefully.

2. Đề số 2

2.1 Passage 1

SOSUS: Listening to the Ocean

A. The oceans of Earth cover more than 70 percent of the planet's surface, yet, until quite recently, we knew less about their depths than we did about the surface of the Moon. Distant as it is, the Moon has been far more accessible to study because astronomers long have been able to take at its surface, first with the naked eye and then with the telescope-both instruments that focus light. And, with telescopes tuned to different wavelengths of light, modern astronomers can not only analyze Earth's atmosphere but also determine the temperature and composition of the Sun or other stars many hundreds of light-years away. Until the twentieth century, however, no analogous instruments were available for the study of Earth's oceans: Light, which can travel trillions of miles through the vast vacuum of space, cannot penetrate very far in seawater.

B. Curious investigators long have been fascinated by sound and the way it travels in water. As early as 1490, Leonardo da Vinci observed: "If you cause your ship to stop and place the head of a long tube in the water and place the outer extremity to your ear, you will hear ships at a great distance from you." In 1687, the first mathematical theory of sound propagation was published by Sir Isaac Newton in his *Philosophiae Naturalis Principia Mathematica*. Investigators were measuring the speed of sound in the air beginning in the mid-seventeenth century, but it was not until 1826 that Daniel Colladon, a Swiss physicist, and Charles Sturm, a French mathematician, accurately measured its

speed in the water. Using a long tube to listen underwater (as da Vinci had suggested), they recorded how fast the sound of a submerged bell traveled across Lake Geneva. Their result-1,435 meters (1,569 yards) per second in the water of 1.8 degrees Celsius (35 degrees Fahrenheit) – was only 3 meters per second off from the speed accepted today. What these investigators demonstrated was that water – whether fresh or salt – is an excellent medium for sound, transmitting it almost five times faster than its speed in air.

C. In 1877 and 1878, the British scientist John William Strutt, third Baron Rayleigh, published his two-volume seminal work, The Theory of Sound, often regarded as marking the beginning of the modern study of acoustics. The recipient of the Nobel Prize for Physics in 1904 for his successful isolation of the element argon, Lord Rayleigh made key discoveries in the fields of acoustics and optics that are critical to the theory of wave propagation in fluids. Among other things, Lord Rayleigh was the first to describe a sound wave as a mathematical equation (the basis of all theoretical work on acoustics) and the first to describe how small particles in the atmosphere scatter certain wavelengths of sunlight, a principle that also applies to the behavior of sound waves in water.

D. A number of factors influence how far sound travels underwater and how long it lasts. For one, particles in seawater can reflect, scatter, and absorb certain frequencies of sound – just as certain wavelengths of light may be reflected, scattered, and absorbed by specific types of particles in the atmosphere. Seawater absorbs 30 times the amount of sound absorbed by distilled water, with specific chemicals (such as magnesium sulfate and boric acid) damping out certain frequencies of sound. Researchers also learned that low-frequency sounds, whose long wavelengths generally pass over tiny particles, tend to travel farther without loss through absorption or scattering.

Further work on the effects of salinity, temperature, and pressure on the speed of sound has yielded fascinating insights into the structure of the ocean. Speaking generally, the ocean is divided into horizontal layers in which sound speed is influenced more greatly by temperature in the upper regions and by pressure in the lower depths. At the surface is a sun-warmed upper layer, the actual temperature and thickness of which varies with the season. At mid-latitudes, this layer tends to be isothermal, that is, the temperature tends to be uniform throughout the layer because the water is well mixed by the action of waves, winds, and convection currents; a sound signal moving down through this layer tends to travel at an almost constant speed. Next comes a transitional layer called the thermocline, in which temperature drops steadily with depth; as the temperature falls, so does the speed of sound.

E. The U.S. Navy was quick to appreciate the usefulness of low-frequency sound and the deep sound channel in extending the range at which it could detect submarines. In great secrecy during the 1950s, the U.S. Navy launched a project that went by the code name Jezebel; it would later come to be known as the Sound Surveillance System (SOSUS). The system involved arrays of underwater microphones, called hydrophones, that were placed on the ocean bottom and connected by cables to onshore processing centers. With SOSUS deployed in both deep and shallow water along both coasts of North America and the British West Indies, the U.S. Navy not only could detect submarines in much of the northern hemisphere, it also could distinguish how many propellers a submarine had, whether it was conventional or nuclear, and sometimes even the class of sub.

F. The realization that SOSUS could be used to listen to whales also was made by Christopher Clark, a biological acoustician at Cornell University, when he first visited a SOSUS station in 1992. When Clark looked at the graphic

representations of sound, scrolling 24 hours day, every day, he saw the voice patterns of blue, finback, minke, and humpback whales. He also could hear the sounds. Using a SOSUS receiver in the West Indies, he could hear whales that were 1,770 kilometers (1,100 miles) away. Whales are the biggest of Earth's creatures. The blue whale, for example, can be 100 feet long and weigh as many tons. Yet these animals also are remarkably elusive. Scientists wish to observe blue time and position them on a map. Moreover, they can track not just one whale at a time, but many creatures simultaneously throughout the North Atlantic and the eastern North Pacific. They also can learn to distinguish whale calls. For example, Fox and colleagues have detected changes in the calls of finback whales during different seasons and have found that blue whales in different regions of the Pacific Ocean have different calls. Whales firsthand must wait in their ships for the whales to surface. A few whales have been tracked briefly in the wild this way but not for very great distances, and much about them remains unknown. Using the SOSUS stations, scientists can track the whales in real-time and position them on a map.

G. SOSUS, with its vast reach, also has proved instrumental in obtaining information crucial to our understanding of Earth's weather and climate. Specifically, the system has enabled researchers to begin making ocean temperature measurements on a global scale – measurements that are keys to puzzling out the workings of heat transfer between the ocean and the atmosphere. The ocean plays an enormous role in determining air temperature – the heat capacity in only the upper few meters of the ocean is thought to be equal to all of the heat in the entire atmosphere. For sound waves traveling horizontally in the ocean, speed is largely a function of temperature. Thus, the travel time of a wave of sound between two points is a sensitive indicator of the average temperature along its path. Transmitting sound in numerous directions

through the deep sound channel can give scientists measurements spanning vast areas of the globe. Thousands of sound paths in the ocean could be pieced together into a map of global ocean temperatures and, by repeating measurements along the same paths overtimes, scientists could track changes in temperature over months or years.

H. Researchers also are using other acoustic techniques to monitor climate. Oceanographer Jeff Nystuen at the University of Washington, for example, has explored the use of sound to measure rainfall over the ocean. Monitoring changing global rainfall patterns undoubtedly will contribute to understanding major climate change as well as the weather phenomenon known as El Niño. Since 1985, Nystuen has used hydrophones to listen to rain over the ocean, acoustically measuring not only the rainfall rate but also the rainfall type, from drizzle to thunderstorms. By using the sound of rain underwater as a “natural” rain gauge, the measurement of rainfall over the oceans will become available to climatologists.

Questions 1-4 : TRUE – FALSE – NOT GIVEN

1. In the past, difficulties of research carried out on Moon were much easier than that of the ocean.

2. The same light technology used in the investigation of the moon can be employed in the field of the ocean.

3. Research on the depth of the ocean by the method of the sound wave is more time-consuming.

4. Hydrophones technology is able to detect the category of precipitation.

Questions 5-8

The Reading Passage has 8 paragraphs A-H.

Which paragraph contains the following information?

5. Elements affect sound transmission in the ocean.

6. Relationship between global climate and ocean temperature.

7. Examples of how sound technology help people research ocean and creatures in it.

8. Sound transmission underwater is similar to that of light in any condition.

Questions 9-13

9. Who of the followings is dedicated to the research of rate of sound?

A. Leonardo da Vinci

B. Isaac Newton

C. John William Strutt

D. Charles Sturm

10. Who explained that the theory of light or sound wavelength is significant in the water?

A. Lord Rayleigh

B. John William Strutt

C. Charles Sturm

D. Christopher Clark

11. According to Fox and colleagues, in what pattern does the change of *finback whale* calls happen

A. Change in various seasons

B. Change in various days

C. Change in different months

D. Change in different years

12. In which way does the SOSUS technology inspect whales?

A. Track all kinds of whales in the ocean

B. Track bunches of whales at the same time

C. Track only finback whale in the ocean

D. Track whales by using multiple appliances or devices

13. What could scientists inspect via monitoring along a repeated route?

A. Temperature of the surface passed

B. Temperature of the deepest ocean floor

C. Variation of temperature

D. Fixed data of temperature

2.2 Passage 2

Left-handed or Right-handed

Section A

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

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

Section B

The genetic theory is also undermined by results from Peter Hepper and his team at Queen's University in Belfast, Ireland. In 2004 the psychologists used ultrasound to show that by the 15th week of pregnancy, fetuses already have a preference as to which thumb they suck. In most cases, the preference continued after birth. At 15 weeks, though, the brain does not yet have control over the body's limbs. Hepper speculates that fetuses tend to prefer whichever side of the body is developing quickly and that their movements, in turn,

influence the brain's development. Whether this early preference is temporary or holds up throughout development and infancy is unknown. Genetic predetermination is also contradicted by the widespread observation that children do not settle on either their right or left hand until they are two or three years old.

Section C

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

Section D

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

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

Section E

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

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

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

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

Section F

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

Section G

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

Questions 14-18

The Reading Passage has 7 paragraphs A-G.

Which paragraph contains the following information?

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

15. Statistics on the rate of one-handedness born.

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

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

18. The earliest record of researching hemisphere's function.

Questions 19-22

Match each researcher with the correct finding.

A. Brenda Milner

B. Marian Annett

C. Peter Hepper

D. Michale Corballis

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

20. A child handedness is not determined by just biological factors.

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

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

Questions 23-26 : *YES – NO – NOT GIVEN*

23. The study of twins shows that genetic determination is not the only factor for left Handedness.

24. The number of men with left-handedness is more than that of women.

25. Marc Dax's report was widely recognized in his time.

26. Juhn Wada based his findings on his research of people with language problems.

2.3 Passage 3

THE POWER OF NOTHING

A. Want to devise a new form of alternative medicine? No problem. Here is the recipe. Be warm, sympathetic, reassuring and enthusiastic. Your treatment should involve physical contact, and each session with your patients should last at least half an hour. Encourage your patients to take an active part in their treatment and understand how their disorders relate to the rest of their lives. Tell them that their own bodies possess the true power to heal. Make them pay you out of their own pockets. Describe your treatment in familiar words, but embroidered with a hint of mysticism: energy fields, energy flows, energy blocks, meridians, forces, auras, rhythms and the like. Refer to the knowledge of an earlier age: wisdom carelessly swept aside by the rise and rise of blind, mechanistic science. Oh, come off it, you are saying. Something invented off the top of your head could not possibly work, could it?

B. Well yes, it could – and often well enough to earn you a living. A good living if you are sufficiently convincing, or better still, really believe in your therapy. Many illnesses get better on their own, so if you are lucky and administer your treatment at just the right time you will get the credit. But that's only part of it. Some of the improvement really would be down to you. Your healing power would be the outcome of a paradoxical force that conventional medicine recognizes but remains oddly ambivalent about: the placebo effect.

C. Placebos are treatments that have no direct effect on the body, yet still, work because the patient has faith in their power to heal. Most often the term refers to a dummy pill, but it applies just as much to any device or procedure, from a sticking plaster to a crystal to an operation. The existence of the placebo effect

implies that even quackery may confer real benefits, which is why any mention of placebo is a touchy subject for many practitioners of complementary and alternative medicine, who are likely to regard it as tantamount to a charge of charlatanism. In fact, the placebo effect is a powerful part of all medical care, orthodox or otherwise, though its role is often neglected or misunderstood.

D. One of the great strengths of CAM may be its practitioners' skill in deploying the placebo effect to accomplish real healing. "Complementary practitioners are miles better at producing non-specific effects and good therapeutic relationships," says Edzard Ernst, professor of CAM at Exeter University. The question is whether CAM could be integrated into conventional medicines, as some would like, without losing much of this power.

E. At one level, it should come as no surprise that our state of mind can influence our physiology: anger opens the superficial blood vessels of the face; sadness pumps the tear glands. But exactly how placebos work their medical magic is still largely unknown. Most of the scant research done so far has focused on the control of pain because it's one of the commonest complaints and lends itself to experimental study. Here, attention has turned to the endorphins, morphine-like neurochemicals known to help control pain.

F. But exactly how placebos work their medical magic is still largely unknown. Most of the scant research to date has focused on the control of pain because it's one of the commonest complaints and lends itself to experimental study. Here, attention has turned to the endorphins, natural counterparts of morphine that are known to help control pain. "Any of the neurochemicals involved in transmitting pain impulses or modulating them might also be involved in generating the placebo response," says Don Price, an oral surgeon at the University of Florida who studies the placebo effect in dental pain.

G. "But endorphins are still out in front." That case has been strengthened by the recent work of Fabrizio Benedetti of the University of Turin, who showed that the placebo effect can be abolished by a drug, naloxone, which blocks the effects of endorphins. Benedetti induced pain in human volunteers by inflating a blood-pressure cuff on the forearm. He did this several times a day for several days, using morphine each time to control the pain. On the final day, without saying anything, he replaced the morphine with a saline solution. This still relieved the subjects' pain: a placebo effect. But when he added naloxone to the saline the pain relief disappeared. Here was direct proof that placebo analgesia is mediated, at least in part, by these natural opiates.

H. Still, no one knows how belief triggers endorphin release, or why most people can't achieve placebo pain relief simply by willing it. Though scientists don't know exactly how placebos work, they have accumulated a fair bit of knowledge about how to trigger the effect. A London rheumatologist found, for example, that red dummy capsules made more effective painkillers than blue, green or yellow ones. Research on American students revealed that blue pills make better sedatives than pink, a colour more suitable for stimulants. Even branding can make a difference: if Aspro or Tylenol is what you like to take for a headache, their chemically identical generic equivalents may be less effective.

I. It matters, too, how the treatment is delivered. Decades ago, when the major tranquilliser chlorpromazine was being introduced, a doctor in Kansas categorised his colleagues according to whether they were keen on it, openly skeptical of its benefits, or took a "let's try and see" attitude. His conclusion: the more enthusiastic the doctor, the better the drug performed. And this year Ernst surveyed published studies that compared doctors' bedside manners. The studies turned up one consistent finding: "Physicians who adopt a warm,

friendly and reassuring manner," he reported, "are more effective than those whose consultations are formal and do not offer reassurance."

J. Warm, friendly and reassuring are precisely CAM's strong suits, of course. Many of the ingredients of that opening recipe – the physical contact, the generous swathes of time, the strong hints of supernormal healing power – are just the kind of thing likely to impress patients. It's hardly surprising, then, that complementary practitioners are generally best at mobilising the placebo effect, says Arthur Kleinman, professor of social anthropology at Harvard University.

Questions 27-32

Use the information in the passage to match the deed (listed **A-H)** with questions below.

A. Should easily be understood
B. Should improve by itself
C. Should not involve any mysticism
D. Ought to last a minimum length of time.
E. Needs to be treated at the right time.
F. Should give more recognition.
G. Can earn valuable money.
H. Do not rely on any specific treatment

27. Appointments with an alternative practitioner
28. An alternative practitioner's description of the treatment
29. An alternative practitioner who has faith in what he does
30. the illness of patients convinced of alternative practice
31. Improvements of patients receiving alternative practice
32. Conventional medical doctors (who is aware of placebo)

Questions 33-35

33. In the fifth paragraph, the writer uses the example of *anger and sadness* to illustrate that:

A. People's feeling could affect their physical behaviour

B. Scientists don't understand how the mind influences the body.

C. Research on the placebo effect is very limited

D. How placebo achieves its effect is yet to be understood.

34. Research on pain control attracts most of the attention because

A. Scientists have discovered that endorphins can help to reduce pain.

B. Only a limited number of researchers gain relevant experience

C. Pain reducing agents might also be involved in the placebo effect.

D. Patients often experience pain and like to complain about it

35. *Fabrizio Benedetti*'s research on endorphins indicates that

A. They are widely used to regulate pain.

B. They can be produced by willful thoughts

C. They can be neutralized by introducing naloxone.

D. Their pain-relieving effects do not last long enough.

Questions 36-40: *TRUE – FALSE – NOT GIVEN*

36. There is enough information for scientists to fully understand the placebo effect.

37. A London based researcher discovered that red pills should be taken off the market.

38. People's preference for brands would also have an effect on their healing.

39. Medical doctors have a range of views of the newly introduced drug of *chlorpromazine*.

40. Alternative practitioners are seldom known for applying the placebo effect.

3. Đề số 3

3.1 Passage 1

Corporate social Responsibility a new concept of "market"

Maybe Ben & Jerry's and The Body Shop set themselves up for a fall by appearing to have a monopoly on making an honest buck. But their struggles are a lesson on how little we know about the minefield of "ethical" marketing. The Body Shop, along with the American ice cream maker Ben and Jerry's, was hailed as a new breed of green, or environmentally conscious, business.

Ben and Jerry's

A. Ben & Jerry's offers a very sweet **benefits package to employees**. First, every one of the 700+ Ben & Jerry's workers is entitled to three free pints of ice cream, sorbet or frozen yoghurt per day worked. (Some workers use allotments of their free treats to barter for other goods and services in town such as haircuts). Beyond the freebies, personnel receive a 50% discount on the company's frozen goodies, a 40% discount on merchandise and further 30% break on no- Ben & Jerry's foods at company outlets.

B. Workers are further entitled to paid family leave and may take advantage of the Employee Stock Purchase Program to purchase company stock (after six months with the organization) at a 15% discount. Beginning in 1998, 316 stock options are awarded to each worker (excluding directors and officers) and stock is also assigned to each employee's 410K plan at the end of the calendar year. These contributions are intended to achieve the company's goal of linked

prosperity, i.e. to assure that future prosperity is widely shared by all employees.

The Body Shop

C. History of The Body Shop Anita Roddick started The Body Shop with a mere £4,000 and a dream. With over 1,900 stores in 50 countries. The Body Shop was founded in 1976 in Brighton, England. From her original shop, which offered a line of 25 different lotions, creams, and oils, Roddick became the first successful marketer of body care products that combined natural ingredients with ecologically-benign manufacturing processes. Her company's refusal to test products on animals, along with an insistence on nonexploitative labor practices among suppliers around the world, appealed especially to upscale, mainly middle-class women, who were and have continued to be the company's primary market. As sales boomed, even the conservative financial markets approved of The Body Shop's impressive profit picture, and a public stock offering in 1984 was successful. An expansion campaign followed. In 1988 the company entered the U.S. market by opening a store in New York City, and by 1977 the company boasted 1,500 stores, including franchises, in 47 countries. Anti-marketing seemed to be smart marketing, at least as far as The Body Shop was concerned.

D. Part of the secret of The Body Shop's early success was that it had created a market niche for itself. The company was not directly competing against the traditional cosmetics companies, which marketed their products as fashion accessories designed to cover up flaws and make women look more like the fashion models who appeared in their lavish ads. Instead, The Body Shop offered a line of products that promised benefits other than appearance – healthier skin, for instance – rather than simply a better-looking complexion. The company is known for pioneering the naturalingredient cosmetic market

and establishing social responsibility as an integral part of company operations. The Body Shop is known for its ethical stances, such as its monetary donations to be communities in which it operates, and its business partnerships with developing countries. In 1988 Roddick opened her first store in the United States, and by that time – through various social initiatives such as the "Stop the Burn" campaign to save the Brazilian rainforest (the source of many of the company's natural ingredients), and strong support of employee volunteerism – The Body Shop name had become synonymous with social activism and global preservation worldwide. The company had also become immensely profitable.

E. By the mid-1990s, however, The Body Shop faced growing competition, forcing it to begin its first major advertising initiative, the most prominent part of which was the "Ruby" campaign. The campaign was personified by Ruby, a doll with Rubenesque proportions who was perched on an antique couch and who looked quite pleased with herself and her plump frame. Randy Williamson, a spokesperson for The Body Shop, said, "Ruby is the fruit of our long-established practice of challenging the way the cosmetic industry talks to women. The Ruby campaign is designed to promote the idea that The Body Shop creates products designed to enhance features, moisturize, cleanse, and polish, not to correct 'flaws.' The Body Shop philosophy is that there is real beauty in everyone. We are not claiming that our products perform miracles."

F. The Competition the Body Shop lost market share in the late 1990s to product-savvy competitors that offered similar cosmetics at lower prices. The main competitors are H20, Sephora, Bath and Body Works, and Origins. Research Results Research showed that **women appreciate The Body Shop for their ethical standards**. They are pleased by companies with green actions, not promises. The research proved that The Body Shop has been put

on the back burner in many people's minds: overcrowded by newer, fresher Brands. Companies like the Body Shop continually hype their products through advertising and marketing, often creating a demand for something where a real need for it does not exist. The message pushed is that the route to happiness is through buying more and more of their products. Under such consumerism, the increasing domination of multinationals and their standardised products is leading to global cultural conformity. Other downfall factors also include misleading the public, low pay and against unions, exploiting indigenous people; Also the mass production, packaging and transportation of huge quantities of goods are using up the world's resources faster than they can be renewed and filling the land, sea and air with dangerous pollution and waste.

G. The Problem The Body Shop has used safe and timid advertising over the last decade, decreasing market share and brand value. With the rise of new, more natural and environmentally friendly competitors, The Body Shop can no longer stand behind being the greenest or most natural. The Solution The Body Shop is the originator of ethical beauty with our actions speaking louder than our words. This is the new direction of The Body Shop. We will be a part of different acts of kindness in big cities. We will eliminate unwanted graffiti, purify city air, and give the customer an opportunity to be a part of something good.

Questions 1-4

*The Reading Passage has 8 paragraphs **A-H**.*

Which paragraph contains the following information?

1. An action is taken to establishing social responsibility in the conservation project

2. a description of the conventional way the ads applied to talk to its customers

3. A history of a humble origin and expansion

4. management practices are intended to line up the company's goal with participants' prosperity.

Questions 5-7

Choose the THREE correct letter, A-F

What is true about Ben & Jerry's company management

A. There was little difference between the highest salary and the lowest

B. They were advertising their product with powerful internal marketing.

C. They offer the employee complimentary product

D. Employee was encouraged to give services back to the community

E. the products are designed for workers to barter for other goods and services

F. offered a package of benefits for disabled employees

Questions 8-10

Choose the THREE correct letter, A-F

What are the factors once contributed to the success of the BODY SHOP?

A. pioneering the natural-ingredient cosmetics market

B. appealed to primary market mainly of the rich women

C. focused on their lavish ads campaign

D. The company avoided producing traditional cosmetics products

E. its moral concept that refuses to use animals-tested ingredients

F. its monetary donations to the communities and in developing countries

Questions 11-13

Choose the THREE correct letter, A-F

What are the factors leading to the later failure for BODY SHOP company?

A. its philosophy that there is real beauty in everyone is faulty

B. fail to fulfil promises while acted like misleading the public

C. faced growing competition

D. its creating demand for something that the customers do not actually need

E. its newer, fresher Brands are not successful in the Market

F. fail to offer cosmetics at lower prices than competitors

3.2 Passage 2

Griffith and American films

Movies are key cultural artefactsthat offer a window into American cultural and social history. A mixture of art, business, and popular entertainment, the popular entertainment, the movies provide a host of insights into Americans' shifting ideas, fantasies, and preoccupations.

A. Many films of the early silent era dealt with gender relations. Before 1905, as Kathy Peiss has argued, movie screens were filled with salacious sexual imagery and risque humor, drawn from burlesque halls and vaudeville theaters. Early films offered many glimpses of women disrobing or of passionate kisses. As the movies' female audience grew, sexual titillation and voyeurism persisted. But an ever-increasing number of the film dealt with the changing work and sexual roles of women in a more sophisticated manner. While D.W. Griffith's films presented an idealized picture of the frail Victorian child-woman and showed an almost obsessive preoccupation with female honor and chastity, other silent movies presented quite different images of femininity. These ranged from the exotic, sexually aggressive vamp to the athletic, energetic "serial queen"; the street smart urban working gal, who repels the sexual advances of her lascivious boss; and cigarette-smoking, alcohol drinking chorus girls or burlesque queens.

B. In early 1910, director D.W. Griffith was sent by the Biograph Company to the west coast with his acting troupe, consisting of actors Blanche Sweet, Lillian Gish, Mary Pickford, Lionel Barrymore, and others. While there, the company decided to explore new territories, traveling several miles north to Hollywood, a little village that was friendly and enjoyed the movie company filming there. By

focusing the camera on particular actors and actresses, Griffith inadvertently encouraged the development of the star system. As early as 1910, newspapers were deluged with requests for actors' names. But most studios refused to divulge their identities, fearing the salary demands of popular performers. As one industry observer put it, "In the 'star' your producer gets not only a 'production' value …. but a 'trademark' value, and an 'insurance' value which are … very potent in guaranteeing the sale of this product." As the star system emerged, salaries soared. In the course of just two years, the salary of actress Mary Pickford rose from less than $400 a week in 1914 to $10,000 a week in 1916. This action made Griffith believe the big potential in the movie industry. Thus many competitors completely copy the same system as Griffith used, for the considerable profits. Additionally, they also study the theory and methods which Griffith suggested.

C. From the moment America entered the war, Hollywood feared that the industry would be subject to heavy-handed government censorship. But the government itself wanted no repeat of World War I, when the Committee on Public Information had whipped up anti-German hysteria and oversold the war as "a Crusade not merely to re-win the tomb of Christ, but to bring back to earth the rule of right, the peace, goodwill to men and gentleness he taught."

D. The formation of the movie trust ushered in a period of rationalization within the film industry. Camera and projecting equipment were standardized; film rental fees were fixed; theaters were upgraded; which improved the quality of movies by removing damaged prints from circulation. This was also a period of intense artistic and technical innovation, as pioneering directors like David Wark Griffith and others created a new language of film and revolutionized screen narrative.

E. With just six months of film experience, Griffith, a former stage actor, was hired as a director by the Biograph Company and promised $50 a week and one-twentieth of a cent for every foot of film sold to a rental exchange. Each week, Griffith turned out two or three one-reelers. While earlier directors had used such cinematic devices as close-ups, slow motion, fade-ins and fade-outs, lighting effects, and editing before, Griffith's great contribution to the movie industry was to show how these techniques could be used to create a wholly new style of storytelling, distinct from the theater. Griffith's approach to movie storytelling has been aptly called "photographic realism." This is not to say that he merely wished to record a story accurately; rather he sought to convey the illusion of realism. He demanded that his performers act less in a more lifelike manner, avoiding the broad, exaggerated gestures and pantomiming of emotions that characterized the nineteenth-century stage. He wanted his performers to take on a role rather than directly addressing the camera.
Above all, he used close-ups, lighting, editing, and other cinematic techniques convey suspense and other emotions and to focus the audience's attention on individual performers.

F. During the 1920s and 1930s, a small group of film companies consolidated their control. Known as the "Big Five" – Paramount, Warner Brothers, RKO, 20th Century-Fox, and Lowe's (MGM) and the "Little Three" – Universal, Columbia, and United Artists, they formed fully integrated companies. The old film company's opposition was shocked by new tycoons. The confusion of tongues in the foreign version of American films deepened when American directors themselves embarked on the shooting of the new version. They did not usually speak Spanish (or the given target language) and, at that time, there were only a few translators at the studio's disposal. For this reason, it was more general to contract Spanish directors, actors, and screenwriters to produce

American films in Spanish for Latin American audiences and for the public in the Iberian Peninsula. Hollywood had depended on overseas markets for as much as 40 percent of its revenue. But in an effort to nurture their own film industries and prevent an excessive outflow of dollars, Britain, France, and Italy imposed stiff import tariffs and restrictive quotas on imported American movies.

G. A basic problem facing today's Hollywood is the rapidly rising cost of making and marketing a movie: an average of $40 million today. The immense cost of producing movies has led the studios to seek guaranteed hits: blockbuster loaded with hightech special effects, sequels, and remakes of earlier movies, foreign films, and even old TV shows. Hollywood has also sought to cope with rising costs by focusing ever more intently on its core audiences. Since the mid-1980s, the movie-going audience has continued to decrease in size. Ticket sales fell from 1.2 billion in 1983 to 950 million in 1992, with the biggest drop occurring among adults. And since over half of Hollywood's profits are earned overseas, the target market has to be changed due to the increasing costs and salary of making a film. The industry has concentrated much of its energy on crude action films easily understood by an international audience, featuring stars like Arnold Schwarzenegger and Sylvester Stallone.

Questions 14-19

*The Reading Passage has 7 paragraphs **A-G**.*

Which paragraph contains the following information?

List of Headings

i. Detailed description for a film system

ii. Griffith's contribution to American films

iii. The gender in the development of American film

iv. Change the view of the American movie

v. People's reaction to making movies in the war period

vi. The increasing market of the film in society

vii. Griffith improved gender recognition in society

14. Paragraph **A**

15. Paragraph **B**

16. Paragraph **C**

17. Paragraph **D**

18. Paragraph **E**

19. Paragraph **F**

Questions 20-23

Match each researcher with the correct finding

A. old company's opposition

B. huge drop happens among adults

C. the pressure to change its market

D. completely copy his system

20. Griffith's successful in the 1910s, led his rivals

21. The growing costs and salary in Hollywood which shows it has

22. The increasing new movie industries have a big impact on

23. In 1992, ticket sales declined dramatically, due to

Questions 24 - 26

24. Why Griffith believe the potential in making movies?

A. The gender development in American films

B. He used the star system successfully

C. He prefers advanced movie techniques

D. He earns lots of money

25. What is other competitors' reaction to Griffith?

A. Adopt Griffith's theory and methods in making films

B. Complete copy his theory and methods

C. Try to catch up with their innovations

D. Find a new system against Griffith

26. What is the great change in films industries during the 1920s and 1930s?

A. Try to seek the high-tech special efforts

B. Dismiss the needs of overseas audiences

C. Changed its goal market

D. Improved the foreign version of American movies

3.3 Passage 3

Environmentally-friendly! vehicles

A. In the early 1990s, the California Air Resources Board (CARB), the government of California's "clean air agency", began a push for more fuel-efficient, lower-emissions vehicles, with the ultimate goal being a move to zero-emissions vehicles such as electric vehicles. In response, automakers developed electric models, including the Chrysler TEVan, Ford Ranger EV pickup truck, GM EV1 and S10 EV pickup, Honda EV Plus hatchback, Nissan lithium-battery Altra EV miniwagon and Toyota RAV4 EV. Ford Fusion is manufactured at Ford's Hermosillo Stamping & Assembly plant, located in Sonora Mexico. I thought going green was supposed to provide the U.S. with more jobs.

B. The automakers were accused of pandering to the wishes of CARB in order to continue to be allowed to sell cars in the lucrative Californian market, while failing to adequately promote their electric vehicles in order to create the impression that the consumers were not interested in the cars, all the while joining oil industry lobbyists in vigorously protesting CARB's mandate. GM's program came under particular scrutiny; in an unusual move, consumers were not allowed to purchase EV1s, but were instead asked to sign closed-end leases, meaning that the cars had to be returned to GM at the end of the lease period, with no option to purchase, despite lesser interest in continuing to own the cars. Chrysler, Toyota, and a group of GM dealers sued CARB in Federal court, leading to the eventual neutering of CARB's ZEV Mandate.

C. After public protests by EV drivers' groups upset by the repossession of their cars, Toyota offered the last 328 RAV4-EVs for sale to the general public during

six months, up until November 22, 2002. Almost all other production electric cars were withdrawn from the market and were in some cases seen to have been destroyed by their manufactures. Toyota continues to support the several hundred Toyota RAV4-EV in the hands of the general public and in fleet usage. GM famously de-activated the few EV1s that were donated to engineering schools and museums.

D. Throughout the 1990s, the appeal of fuel-efficient or environmentally friendly cars declined among Americans, who instead favored sport utility vehicles, which were affordable to operate despite their poor fuel efficiency thanks to lower gasoline prices. American automakers chose to focus their product lines around the truck-based vehicles, which enjoyed larger profit margins than the smaller cars which were preferred in places like Europe or Japan. In 1999, the Honda Insight hybrid car became the first hybrid to be sold in North America since the little-known Woods hybrid of 1917.

E. In 1995, Toyota debuted a hybrid concept car at the Tokyo Motor Show, with testing following a year later. The first Prius, model NHW10, went on sale on December 10, 1997. It was available only in Japan, though it has been imported privately to at least the United Kingdom, Australia, and New Zealand. The first-generation Prius, at its launch, became the world's first mass-produced gasoline-electric hybrid car. The NHW10 Prius styling originated from California designers, who were selected over competing designs from other Toyota design studios.

F. In the United States, the NHW11 was the first Prius to be sold. The Prius was marketed between the smaller Corolla and the larger Camry. The published retail price ofthe car was US$19,995. The NHW11 Prius became more powerful partly to satisfy the higher speeds and longer distances that Americans drive. Air conditioning and electric power steering were standard equipment. The

vehicle was the second mass-produced hybrid on the American market, after the two-seat Honda Insight. While the larger Prius could seat five, its battery pack restricted cargo space.

G. Hybrids, which featured a combined gasoline and electric powertrain, were seen as a balance, offering an environmentally friendly image and improved fuel economy, without being hindered by the low range of electric vehicles, albeit at an increased price over comparable gasoline cars. Sales were poor, the lack of interest attributed to the car's small size and the lack of necessity for a fuel-efficient car at the time. The 2000s energy crisis brought renewed interest in hybrid and electric cars. In America, sales of the Toyota Prius jumped, and a variety of automakers followed suit, releasing hybrid models of their own. Several began to produce new electric car prototypes, as consumers called for cars that would free them from the fluctuations of oil prices.

H. In 2000, Hybrid Technologies, later renamed Li-ion Motors, started manufacturing electric cars in Mooresville, North Carolina. There has been increasing controversy with Li-ion Motors though due to the ongoing 'Lemon issues' regarding their product. And their attempt to cover it up. California electric-car maker Tesla Motors began development in 2004 on the Tesla Roadster, which was first delivered to customers in 2008. The Roadster remained the only highway-capable EV in serial production and available for sale until 2010. Senior leaders at several large automakers, including Nissan and General Motors, have stated that the Roadster was a catalyst which demonstrated that there is pent-up consumer demand for more efficient vehicles. GM Vice Chairman Bob Lutz said in 2007 that the Tesla Roadster inspired him to push GM to develop the Chevrolet Volt, a plug-in hybrid sedan prototype that aims to reverse years of dwindling market share and massive financial losses for America's largest automaker. In an August 2009 edition of

The New Yorker, Lutz was quoted as saying, “All the geniuses here at General Motors kept saying lithium-ion technology is 10 years away, and Toyota agreed with us – and boom, along comes Tesla. So I said, ‘How come some tiny little California startup, run by guys who know nothing about the car business, can do this, and we can’t?’ That was the crowbar that helped break up the log jam.”

Questions 27-30

27. What does the author think of the factory in Sonora in Mexico where the ford fusion is manufactured?

A. the factory should be helpful in the US soil business

B. Employment of US will be created as consumers change their awareness

C. More competitive cars will be introduced into the market

D. this issue is hard to give a predict

28. In the 1990s, what dropped in America for environmentally friendly vehicles?

A. production

B. Attractiveness

C. Announcement

D. Expectation

29. What did GM notably send to engineering schools and museums?

A. EV 1

B. CARB

C. RAV4

D. MINI E

30. Nissan and GM high level leaders declared the real reason for the popularity of Roadster is its

A. legendary concept

B. huge population in market

C. bursting demand

D. artistic design

Questions 31-35 : TRUE – FALSE – NOT GIVEN

31. Some automakers mislead and suppressed the real demand for electric cars of keeping profit in a certain market by luring the want of CARB.

32. Toyota started to sell 328 RAV4-EVs for taking up the market share.

33. In some countries, American auto-makers would like to grab the opportunity to earn money in the vehicle of bigger litre engine cars rather than smaller ones.

34. Hybrids cars are superior vehicles that combine the impression of an environmental friend electric power engine and a lower price in the unit sale.

35. an inspiration to make an effort to produce hybrid cars is to cope with economic difficulties result from a declining market for General Motors.

Questions 36-40

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

A **36**..... was firstly introduced by Car maker Toyota in 1995. Then it started for sale in 1997 with a new first-generation model. Not only in Japan but included other countries such as **37**..... and Oceania in which *the Prius* was imported to. The first-generation Prius was the first car in mass production which is powered by **38**..... The model NHW10 was designed by a winning Californian designer. The innovated NHW 11 Prius has considerably higher running velocity and **39** ..... than American counterparts. Still, he load capacity of current Prius version was limited in its **40**.....

A. electric car
B. United Kingdom
C. Market
D. concept car
E. longer distances
F. Emissions
G. battery
H. Consumers
I. gasoline-electricity
J. inspiration
K. cargo space
L. orientation

Đề số 4

4.1 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 life? 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 conclusion, 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, conceived 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 contrast, 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 a huge number of specimens 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, Bronco 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 this 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.*

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 a 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

Using NO MORE THAN TWO WORDS from the Reading Passage for each answer.

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 is switched to concerns between two-term: "**12**....." and "**13**....."

4.2 Passage 2

Western Immigration of Canada

A. By the mid-1870s Canada wanted an immigrant population of agricultural settlers established in the West. No urban centres existed on the prairies in the 1870s, and rural settlement was the focus of the federal government's attention. The western rural settlement was desired, as it would provide homesteads for the sons and daughters of eastern farmers, as eastern agricultural landfilled to capacity. As well, eastern farmers and politicians viewed western Canada, with its broad expanses of unpopulated land, as a prime location for expanding Canada's agricultural output, especially in terms of wheat production to serve the markets of eastern Canada.

B. To bolster Canada's population and agricultural output, the federal government took steps to secure western land. The Dominion of Canada purchased Rupert's Land from the Hudson's Bay Company in 1870. In 1872, the federal government enacted the Dominion Lands Act. This act enabled settlers so acquire 160 acres of free land, as long as settlers remained on their land for a period of three years, made certain minor improvements to the land, and paid a $10.00 registration fee. The Canadian government also created a Mounted Police Force in 1873. The Mounties ***journeyed west*** to secure the area for future settlers. By 1876 the NWMP had established themselves in the West. The major posts included Swan River, Fort Saskatchewan, Fort Calgary, Fort Walsh and Fort Macleod. All of these initiatives attracted a number of eastern Canadian settlers, as well as European and American immigrants, to Canada's West, and particularly to the area of Manitoba.

C. The surest way to protect Canadian territory, and to achieve the secondary goal for joining British Columbia to the rest of the country, was to import large numbers of Eastern Canadian and British settlers. Settling the West also made imperative the building of a transcontinental railway. The railway would work to create an eastwest economy, in which western Canada would feed the growing urban industrial population of the east, and in return become a market for eastern Canadian manufactured goods.

D. Winnipeg became the metropolis of the West during this period. Winnipeg's growth before 1900 was the result of a combination of land speculation, growth of housing starts, and the federal government's solution in 1881 of Winnipeg as a major stop along the CPR. This decision culminated in a land boom between 1881 and 1883 which resulted in the transformation of hamlets like Portage la Prairie and Brandon into towns, and a large increase in Manitoba's population. Soon, Winnipeg stood at the junction of three transcontinental railway lines which employed thousands in rail yards. Winnipeg also became the major processor of agricultural products for the surrounding hinterland.

E. The majority of settlers to Winnipeg, and the surrounding countryside, during this early period, were primarily Protestant English-speaking settlers from Ontario and the British Isles. These settlers established Winnipeg upon a British-Ontarian ethos which came to dominate the society's social, political, and economic spirit. This British-Ontarian ethnic homogeneity, however, did not last very long. Increasing numbers of foreign immigrants, especially from Austria-Hungary and Ukraine soon added a new ethnic element to the recent British, the older First Nation Métis, and Selkirk's settler population base. Settling the West with (in particular) Eastern Canadians and British immigrant offered the advantage of safeguarding the 49th parallel from the threat of American take-over, had not the Minnesota legislature passed a resolution

which provided for the annexation of the Red River district. The Red River in 1870 was the most important settlement on the Canadian prairies. It contained 11,963 inhabitants of whom 9,700 were Métis and First Nations. But neighbouring Minnesota already had a population of over 100,000.

F. Not all of the settlers who came to western Canada in the 1880s, however, desired to remain there. In the 1870s and 1880s, economic depression kept the value of Canada's staple exports low, which discouraged many from permanent settlement in the West. Countries including Brazil, Argentina, Australia, New Zealand and the United States competed with Canada for immigrants. Many immigrants and thousands of Canadians chose to settle in the accessible and attractive American frontier. Canada before 1891 has been called "a huge demographic railway station" where thousands of men, women, and children were constantly going and coming, and where the number of departures invariably exceeded that of arrivals."

G. By 1891 Eastern Canada had its share of both large urban centres and problems associated with city life. While the booming economic centres of Toronto and Montreal were complete with electricity and telephones in the cities' wealthiest areas by the turn of the century, slum conditions characterised the poorest areas like the district known as 'the Ward' in Toronto. Chickens and pigs ran through the streets; privy buckets spilled onto backyards and lanes creating cesspools in urban slums. These same social reformers believed that rural living, in stark contrast to urban, would lead to a healthy, moral, and charitable way of life. Social reformers praised the ability of fresh air, hard work, and open spaces for 'Canadianizing' immigrants. Agricultural pursuits were seen as especially fitting for attaining this 'moral' and family-oriented way of life, in opposition to the single male-dominated atmosphere of the cities. Certainly,

agriculture played an important part in the Canadian economy in 1891. One-third of the workforce worked on farms.

H. The Canadian government presented Canada's attractions to potential overseas migrants in several ways. The government offered free or cheap land to potential agriculturists. As well, the government established agents and / or agencies for the purpose of attracting emigrants overseas. Assisted passage schemes, bonuses and commissions to agents and settlers and pamphlets also attracted some immigrants to Canada. The most influential form of attracting others to Canada, however, remained the letters home written by emigrants already in Canada. Letters from trusted friends and family members. Letters home often contained exaggerations of the 'wonder of the new world.' Migrant workers and settlers already in Canada did not want to disappoint, or worry, their family and friends at home. Embellished tales of good fortune and happiness often succeeded in encouraging others to come.

Questions 14-20

The Reading Passage has 7 paragraphs A-G.

Which paragraph contains the following information?

List of Headings

i. Not all would stay in Canada forever

ii. Government's safeguard in the West

iii. Eastern Canada is full

iv. Built-up to the new infrastructure

v. An exclusive British domination in Ontario established ever since

vi. Ethnics and language make-up

vii. Pursuing a pure life

viii. Police recruited from mid-class families

ix. Demand of western immigration

x. Early major urban development of the West

xi. Attracting urban environment

xii. Advertising of Western Canada

Example: Paragraph *A* **ix**

14. Paragraph **B**

15. Paragraph **C**

16. Paragraph **D**

17. Paragraph **E**

18. Paragraph **F**

19. Paragraph **G**

20. Paragraph **H**

Questions 21-26

Using NO MORE THAN TWO WORDS from the Reading Passage for each answer.

With the saturation of Eastern Canada, the Western rural area would supply **21**…….. for the descendants of easterners. Politicians also declared that Western is got potential to increase **22**…….. of Canada according to **23**…….. crop that consumed in the East. The federal government started to prepare and made it happen. First, the government bought land from a private **24**……, and legally offered a certain area to people who stayed for a qualifying period of time. Then, mounted **25**…….. was found to secure the land. However, the best way to protect citizens was to build a **26**…….. to transport the migrants and goods between the West and the East.

4.3 Passage 3

Beyond the Blue Line

A. Much of the thrill of venturing to the far side of the world rests on the romance of difference. So one feels a certain sympathy for Captain James Cook on the day in 1778 that he “discovered” Hawaii. Then on his third expedition to the Pacific, the British navigator had explored scores of islands across the breadth of the sea, from lush New Zealand to the lonely wastes of Easter Island. This latest voyage had taken him thousands of miles north from the Society Islands to an archipelago so remote that even the old Polynesians back on Tahiti knew nothing about it. Imagine Cook’s surprise, then, when the natives of Hawaii came paddling out in their canoes and greeted him in a familiar tongue, one he had heard on virtually every mote of inhabited land he had visited. Marveling at the ubiquity of this Pacific language and culture, he later wondered in his journal: “How shall we account for this Nation spreading itself so far over this vast ocean?”

B. That question, and others that flow from it has tantalized inquiring minds for centuries: Who were these amazing seafarers? Where did they come from, starting more than 3,000 years ago? And how could a Neolithic people with simple canoes and no navigation gear manage to find, let alone colonize, hundreds of far-flung island specks scattered across an ocean that spans nearly a third of the globe? Answers have been slow in coming. But now a startling archaeological find on the island of Éfaté, in the Pacific nation of Vanuatu, has revealed an ancient seafaring people, the distant ancestors of today’s Polynesians, taking their first steps into the unknown. The discoveries there have also opened a window into the shadowy world of those early voyagers.

C. "What we have is a first- or second-generation site containing the graves of some of the Pacific's first explorers," says Spriggs, professor of archaeology at the Australian National University and co-leader of an international team excavating the site. It came to light only by luck. A backhoe operator, digging up topsoil on the grounds of a derelict coconut plantation, scraped open a grave – the first of dozens in a burial ground some 3,000 years old. It is the oldest cemetery ever found in the Pacific islands, and it harbors the bones of an ancient people archaeologists call the Lapita, a label that derives from a beach in New Caledonia where a landmark cache of their pottery was found in the 1950s.

D. They were daring blue-water adventurers who roved the sea not just as explorers but also as pioneers, bringing along everything they would need to build new lives – their families and livestock, taro seedlings and stone tools. Within the span of a few centuries, the Lapita stretched the boundaries of their world from the jungleclad volcanoes of Papua New Guinea to the loneliest coral outliers of Tonga, at least 2,000 miles eastward in the Pacific. Along the way they explored millions of square miles of an unknown sea, discovering and colonizing scores of tropical islands never before seen by human eyes: Vanuatu, New Caledonia, Fiji, Samoa. It was their descendants, centuries later, who became the great Polynesian navigators we all tend to think of: the Tahitians and Hawaiians, the New Zealand Maori, and the curious people who erected those statues on Easter Island. But it was the Lapita who laid the foundation – who bequeathed to the island the language, customs, and cultures that their more famous descendants carried around the Pacific.

E. While the Lapita left a glorious legacy, they also left precious few clues about themselves. A particularly intriguing clue comes from chemical tests on the teeth of several skeletons. Then as now, the food and water you consume as a

child deposits oxygen, carbon, strontium, and other elements in your still-forming adult teeth. The isotope signatures of these elements vary subtly from place to place, so that if you grow up in, say, Buffalo, New York, then spend your adult life in California, tests on the isotopes in your teeth will always reveal your eastern roots. Isotope analysis indicates that several of the Lapita buried on Éfaté didn't spend their childhoods here but came from somewhere else. And while isotopes can't pinpoint their precise island of origin, this much is clear: At some point in their lives, these people left the villages of their birth and made a voyage by seagoing canoe, never to return. DNA teased from these ancient bones may also help answer one of the most puzzling questions in Pacific anthropology: Did all Pacific islanders spring from one source or many? Was there only one outward migration from a single point in Asia, or several from different points? "This represents the best opportunity we've had yet," says Spriggs, "to find out who the Lapita actually were, where they came from, and who their closest descendants are today."

F. There is one stubborn question for which archaeology has yet to provide any answers: How did the Lapita accomplish the ancient equivalent of a moon landing, many times over? No one has found one of their canoes or any rigging, which could reveal how the canoes were sailed. Nor do the oral histories and traditions of later Polynesians offer any insights.

"All we can say for certain is that the Lapita had canoes that were capable of ocean voyages, and they had the ability to sail them," says Geoff Irwin, a professor of archaeology at the University of Auckland and an avid yachtsman. Those sailing skills, he says, were developed and passed down over thousands of years by earlier mariners who worked their way through the archipelagoes of the western Pacific making short crossings to islands within sight of each other. The real adventure didn't begin, however, until their Lapita descendants neared

the end of the Solomons chain, for this was the edge of the world. The nearest landfall, the Santa Cruz Islands, is almost 230 miles away, and for at least 150 of those miles, the Lapita sailors would have been out of sight of land, with empty horizons on every side.

G. The Lapita's thrust into the Pacific was eastward, against the prevailing trade winds, Irwin notes. Those nagging headwinds, he argues, may have been the key to their success. "They could sail out for days into the unknown and reconnoiter, secure in the knowledge that if they didn't find anything, they could turn about and catch a swift ride home on the trade winds. It's what made the whole thing work." Once out there, skilled seafarers would detect abundant leads to follow to land: seabirds and turtles, coconuts and twigs carried out to sea by the tides and the afternoon pileup of clouds on the horizon that often betokens an island in the distance.

All this presupposes one essential detail, says Atholl Anderson, professor of prehistory at the Australian National University and, like Irwin, a keen yachtsman: that the Lapita had mastered the advanced art of tacking into the wind. "And there's no proof that they could do any such thing," Anderson says. "There has been this assumption that they must have done so, and people have built canoes to re-create those early voyages based on that assumption. But nobody has any idea what their canoes looked like or how they were rigged."

H. However they did it, the Lapita spread themselves a third of the way across the Pacific, then called it quits for reasons known only to them. Ahead lay the vast emptiness of the central Pacific, and perhaps they were too thinly stretched to venture farther. They probably never numbered more than a few thousand in total, and in their rapid migration eastward they encountered hundreds of islands – more than 300 in Fiji alone. Supplied with such an embarrassment of riches, they could settle down and enjoy what for a time was Earth's last Edens.

I. Rather than give all the credit to human skill and daring, Anderson invokes the winds of change. El Niño, the same climate disruption that affects the Pacific today, may have helped scatter the first settlers to the ends of the ocean, Anderson suggests. Climate data obtained from slow-growing corals around the Pacific and from lake-bed sediments in the Andes of South America point to a series of unusually frequent El Niño around the time of the Lapita expansion, and again between 1,600 and 1,200 years ago, when the second wave of pioneer navigators made their voyages farther east, to the remotest corners of the Pacific. By reversing the regular east-to-west flow of the trade winds for weeks at a time, these “super El Niño” might have sped the Pacific’s ancient mariners on long, unplanned voyages could have been key to launching Polynesians across the wide expanse of open water between Tonga, where the Lapita stopped, and the distant archipelagoes of eastern Polynesia. “Once they crossed that gap, they could islandhop throughout the region, and from the Marquesas, it’s mostly downwind to Hawaii,” Anderson says. It took another 400 years for mariners to reach Easter Island, which lies in the opposite direction – normally upwind. “Once again this was during a period of frequent El Niño activity.

Questions 27-31

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

The question, arisen from Captain Cook's expedition to Hawaii, and others derived from it, has fascinated researchers for a long time. However, a surprising archaeological find on Éfaté began to provide valuable information about the **27**…….. On the excavating site, a **28**…….. Containing **29**…….. of Lapita was uncovered. Later on, various researches and tests have been done to study the ancient people – Lapita and their **30**…….. How could they manage to spread themselves so far over the vast ocean? All that is certain is that they were good at canoeing. And perhaps they could take well advantage of the trade wind. But there is no **31**…….. of it.

A. bones	**B.** co-leader	**C.** descendents	**D**. international team
E. inquiring minds	**F.** proof	**G.** ancestors	**H.** early seafarers
I. pottery	**J.** assumption	**K.** horizons	**L.** grave

Questions 32-35

32. The chemical tests indicate that

A. the elements in one's teeth varied from childhood to adulthood.

B. the isotope signatures of the elements remain the same in different places.

C. the result of the study is not fascinating.

D. these chemicals can't conceal one's origin.

33. The isotope analysis from the Lapita

A. exactly locates their birth island.

B. reveals that the Lapita found the new place via straits.

C. helps researchers to find out answers about the islanders.

D. leaves more new questions for anthropologists to answer.

34. According to paragraph F, the offspring of Lapita

A. were capable of voyages to land that is not accessible to view.

B. were able to have the farthest voyage of 230 miles.

C. worked their way through the archipelagoes of the western Pacific.

D. fully explored the horizons.

35. Once out exploring the sea, the sailors

A. always found the trade winds unsuitable for sailing.

B. could return home with various clues.

C. sometimes would overshoot their home port and sail off into eternity.

D. would sail in one direction.

Questions 36-40: *TRUE – FALSE – NOT GIVEN*

36. The Lapita could canoe in the prevailing wind.

37. It was difficult for the sailors to find ways back, once they were out.

38. The reason why the Lapita stopped canoeing farther is still unknown.

39. The majority of the Lapita dwelled on Fiji.

40. The navigators could take advantage of El Nino during their forth voyages.