

**MOCK TEST 02**

**ACADEMIC READING**

**READING PASSAGE 1**

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

**VOYAGE OF GOING: BEYOND THE BLUE LINE 2**

**A**. 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 ok! 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 it self so far over this Vast ocean?”

**B**. Answers have been slow in coming. But now a startling archaeological find on the island of Efate, 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 work! of those early voyagers. At the same time, other pieces of this human puzzle are turning up in unlikely places. Climate data gleaned from slow-growing corals around the Pacific and from sediments in alpine lakes in South America may help explain how, more than a thousand years later, a second wave of seafarers beat their way across the entire Pacific.

**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. They were daring blue-water adventurers who roved the sea not just as expbrers but also as pioneers, bringing abng everything they would need to build new lives— their families and livestock, taro seedlings and stone tools.

**D**. Within the span of a few centuries the Lapita stretched the boundaries of their world from the jungle-clad vokanoes of Papua New Guinea to the bneliest coral outliers of Tonga, at feast 2,000 miles eastward in the Pacific. Abng the way they expbred millions of square miles of unknown sea, discovering and cobnizing scores of tropical islands never before seen by human eyes: Vanuatu, New Caledonia, Fiji, Samoa.

**E**. What little is known or surmised about them has been pieced together from fragments of pottery, animal bones, obsidian flakes, and such oblique sources as comparative linguistics and geochemistry. Although their voyages can be traced back to the northern islands of Papua New Guinea, their language variants of which are still spoken across the Pacific came from Taiwan. And their peculiar style of pottery decoration, created by pressing a carved stamp into the clay, probably had its roots in the northern Philippines. With the discovery of the Lapita cemetery on Efate, the volume of data available to researchers has expanded dramatically. The bones of at feast 62 individuals have been uncovered so far including old men, young women, even babies—and more skeletons are known to be in the ground Archaeobgists were also thrilled to discover six complete Lapita pots. It’s an important find, Spriggs says, for it conclusively identifies the remains as Lapita. “It would be hard for anyone to argue that these aren’t Lapita when you have human bones enshrined inside what is unmistakably a Lapita urn.”

**F**. Several lines of evidence also undergird Spriggs’s conclusion that this was a community of pioneers making their first voyages into the remote reaches of Oceania. For one thing, the radiocarbon dating of bones and charcoal places them early in the Lapita expansion. For another, the chemical makeup of the obsidian flakes littering the site indicates that the rock wasn’t local; instead it was imported from a large island in Papua New Guinea’s Bismarck Archipelago, the springboard for the Lapita’s thrust into the Pacific. A particularly intriguing clue comes from chemical tests on the teeth of several skeletons. DNA teased from these ancient bones may also help answer one of the most puzzling questions in Pacific anthropobgy: 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 cbsest descendants are today.

**G**. “There is one stubborn question for which archaeobgy 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, for they segue into myth long before they reach as far back in time as the Lapita.” 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. Reaching Fiji, as they did a century or so later, meant crossing more than 500 miles of ocean, pressing on day after day into the great blue void of the Pacific. What gave them the courage to launch out on such a risky voyage?

**H**. 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. Some islands may have broadcast their presence with far less subtlety than a cloud bank. Some of the most violent eruptions anywhere on the planet during the past 10,000 years occurred in Melanesia, which sits nervously in one of the most explosive volcanic regions on Earth. Even less spectacular eruptions would have sent plumes of smoke bilbwing into the stratosphere and rained ash for hundreds of miles. It’s possible that the Lapita saw these signs of distant islands and later sailed off in their direction, knowing they would find land For returning explorers, successful or not, the geography of their own archipelagoes provided a safety net to keep them from overshooting their home ports and sailing off into eternity.

**I**. 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. Still, more than a millennium would pass before the Lapita’s descendants, a people we now call the Polynesians, struck out in search of new territory.

**SECTION 1: QUESTIONS 1-13**

### 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

|  |  |
| --- | --- |
| **YES** | if the statement agrees with the views of the writer |
| **NO** | if the statement contradicts the views of the writer |
| **NOT GIVEN** | if it is impossible to say what the writer thinks about this |

**1**  Captain cook once expected the Hawaii might speak another language of people from other pacific islands

**2**  Captain cook depicted number of cultural aspects of Polynesians in his journal

**3**  Professor Spriggs and his research team went to the Efate to try to find the site of ancient cemetery

**4**  The Lapita completed a journey of around 2,000 miles in a period less than a centenary

**5**  The Lapita were the first inhabitants in many pacific islands

**6**  The unknown pots discovered in Efate had once been used for cooking

**7**  The um buried in Efate site was plain as it was without any decoration

### Questions 8-10

Complete the following summary of the paragraphs of Reading Passage 1, using **NO MORE THAN TWO WORDS**from the Reading Passage 1 for each answer.

Write your answers in boxes **8-10**on your answer sheet.

**Scientific Evident found in Efate site**

Tests show the human remains and the charcoal found in the buried um are from the start of the Lapita period. Yet The **8**  covering many of the Efate site did not come from that area.

Then examinations carried out on the **9**  discovered at Efate site reveal that not everyone buried there was a native living in the area. In fact, DNA could identify the Lapita’s nearest **10**  present-days.

### Questions 11-13

Answer the questions below.

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

What did the Lapita travel in when they crossed the oceans?

**11** 

In Irwins’s view, what would the Latipa have relied on to bring them fast back to the base?

**12** 

Which sea creatures would have been an indication to the Lapita of where to find land?

**13** 

**READING PASSAGE 2**

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

**HAVE TEENAGERS ALWAYS EXISTED**

Our ancestor, Homo erectus, may not have had culture or even language, but did they have teenagers? That question has been contested in the past few years, with some anthropologists claiming evidence of an adolescent phase in human fossil.This is not merely an academic debate. Humans today are the only animals on Earth to have a teenage phase, yet we have very little idea why. Establishing exactly when adolescence first evolved and finding out what sorts of changes in our bodies and lifestyles it was associated with could help us understand its purpose.Why do we, uniquely, have a growth spurt so late in life?  
  
Until recently, the dominant explanation was that physical growth is delayed by our need to grow large brains and to learn all the behaviour patterns associated with humanity – speaking, social interaction and so on. While such behaviour is still developing, humans cannot easily fend for themselves, so it is best to stay small and look youthful.That way your parents and other members of the social group are motivated to continue looking after you.What’s more, studies of mammals show a strong relationship between brain size and the rate of development, with larger-brained animals taking longer to reach adulthood. Humans are at the far end of this spectrum. If this theory is correct, and the development of large brains accounts for the teenage growth spurt, the origin of adolescence should have been with the evolution of our own species (Homo sapiens) and Neanderthals, starting almost 200,000 years ago. The trouble is, some of the fossil evidence seems to tell a different story.  
  
The human fossil record is extremely sparse, and the number of fossilised children minuscule. Nevertheless, in the past few years anthropologists have begun to look at what can be learned of the lives of our ancestors from these youngsters. One of the most studied is the famous Turkana boy, an almost complete skeleton of Homo erectus from 1.6 million years ago found in Kenya in 1984. Accurately assessing how old someone is from their skeleton is a tricky business. Even with a modern human, you can only make a rough estimate based on the developmental stage of teeth and bones and the skeleton’s general size.  
  
You need as many developmental markers as possible to get an estimate of age.TheTurkana boy’s teeth made him 10 or II years old.The features of his skeleton put him at 13, but he was as tall as a modern 15-year-old. Susan Anton of New York University points to research by Margaret Clegg who studied a collection of 18th- and 19th-century skeletons whose ages at death were known. When she tried to age the skeletons without checking the records, she found similar discrepancies to those of the Turkana boy. One 10-year-old boy, for example, had a dental age of 9, the skeleton of a 6-year-old but was tall enough to be 11. The Turkana kid still has a rounded skull, and needs more growth to reach the adult shape,’ Anton adds. She thinks that Homo erectus had already developed modern human patterns of growth, with a late, if not quite so extreme, adolescent spurt. She believes Turkana boy was just about to enter it.  
  
If Anton is right, that theory contradicts the orthodox idea linking late growth with development of a large brain. Anthropologist Steven Leigh from the University of Illinois goes further. He believes the idea of adolescence as catch-up growth does not explain why the growth rate increases so dramatically. He says that many apes have growth spurts in particular body regions that are associated with reaching maturity, and this makes sense because by timing the short but crucial spells of maturation to coincide with the seasons when food is plentiful, they minimise the risk of being without adequate food supplies while growing. What makes humans unique is that the whole skeleton is involved. For Leigh, this is the key.  
  
According to his theory, adolescence evolved as an integral part of efficient upright locomotion, as well as to accommodate more complex brains. Fossil evidence suggests that our ancestors first walked on two legs six million years ago. If proficient walking was important for survival, perhaps the teenage growth spurt has very ancient origins. While many anthropologists will consider Leigh’s theory a step too far, he is not the only one with new ideas about the evolution of teenagers.  
  
Another approach, which has produced a surprising result, relies on the minute analysis of tooth growth. Every nine days or so the growing teeth of both apes and humans acquire ridges on their enamel surface.These are like rings in a tree trunk: the number of them tells you how long the crown of a tooth took to form. Across mammals, the rate at which teeth develop is closely related to how fast the brain grows and the age you mature. Teeth are good indicators of life history because their growth is less related to the environment and nutrition than is the growth of the skeleton.  
  
A more decisive piece of evidence came last year, when researchers in France and Spain published their findings from a study of Neanderthal teeth. Neanderthals had much fester tooth growth than Homo erectus who went before them, and hence, possibly, a shorter childhood. Lead researcher Fernando Ramirez-Rozzi thinks Neanderthals died young – about 25 years old — primarily because of the cold, harsh environment they had to endure in glacial Europe.They evolved to grow up quicker than their immediate ancestors. Neanderthals and Homo erectus probably had to reach adulthood fairly quickly, without delaying for an adolescent growth spurt So it still looks as though we are the original teenagers.

**SECTION 2: QUESTIONS 14-27**

### Questions 14-17

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

Write the correct letter in boxes **14-17** on your answer sheet.

**14**

14.In the first paragraph, why does the writer say ‘This is not merely an academic debate’?

* **A** Anthropologists’ theories need to be backed up by practical research.
* **B** There have been some important misunderstandings among anthropologists.
* **C** The attitudes of anthropologists towards adolescence are changing.
* **D** The work of anthropologists could inform our understanding of modem adolescence.

**15**

15.What was Susan Anton’s opinion of the Turkana boy?

* **A** He would have experienced an adolescent phase had he lived
* **B** His skull showed he had already reached adulthood
* **C** His skeleton and teeth could not be compared to those from a more modern age.
* **D** He must have grown much faster than others alive at the time.

**16**

16.What point does Steven Leigh make?

* **A** Different parts of the human skeleton develop at different speeds.
* **B** The growth period of many apes Is confined to times when there is enough food
* **C** Humans have different rates of development from each other depending on living conditions.
* **D** The growth phase in most apes lasts longer if more food is available.

**17**

17.What can we learn from a mammal’s teeth?

* **A** A poor diet will cause them to grow more slowly.
* **B** They are a better indication of lifestyle than a skeleton.
* **C** Their growing period is difficult to predict accurately.
* **D** Their speed of growth is directly related to the body’s speed of development.

### Questions 18-23

Do the following statements agree with the claims of the writer in Reading Passage?  
In boxes **18-23** on your answer sheet, write

|  |  |
| --- | --- |
| **YES** | if the statement agrees with the views of the writer |
| **NO** | if the statement contradicts the views of the writer |
| **NOT GIVEN** | if it is impossible to say what the writer thinks about this |

**18**  It is difficult for anthropologists to do research on human fossils because they are so rare

**19**  Modern methods mean it is possible to predict the age of a skeleton with accuracy

**20**  Susan Anton’s conclusion about the Turkana boy reinforces an established idea

**21**  Steven Leigh’s ideas are likely to be met with disbelief by many anthropologists

**22**  Researchers in France and Spain developed a unique method of analysing teeth

**23**  There has been too little research comparing the brains of Homo erectus and Neanderthals

### Questions 24-27

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

Write the correct letter, **A-G**, in boxes **24-27** on your answer sheet.

Until recently, delayed growth in humans until adolescence was felt to be due to **24** 

In her research, Margaret Clegg discovered **25** 

Steven Leigh thought the existence of adolescence is connected to **26** 

Research on Neanderthals suggests that they had short lives because of **27** 

|  |  |
| --- | --- |
| **A** | inconsistencies between height, skeleton and dental evidence. |
| **B** | the fact that human beings walk on two legs. |
| **C** | the way teeth grew. |
| **D** | a need to be dependent on others for survival. |
| **E** | difficult climatic conditions. |
| **F** | increased quantities of food. |
| **G** | the existence of much larger brains than previously. |

# READING PASSAGE 3

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

## WATER FILTER

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

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

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

**D**. “A potter’s din is an expensive item and can could take up to four or five hours to get upto 800 degrees. It needs expensive or scarce fuel, such as gas or wood to heat it and experience to run it. With no technology, no insulation and nothing other than a pile of cow manure and a match, none of these restrictions apply,” Mr. Flynn says.

**E**. It is also helpful that, like terracotta clay and organic material, cow dung is freely available across the developing world. “A cow is a natural fuel factory. My understanding is that cow dung as a fuel would be pretty much the same wherever you would find it.” Just as using manure as a fuel for domestic uses is not a new idea, the porosity of clay is something that potters have known about for years, and something that as a former ceramics lecturer in the ANU School of Art, Mr. Flynn is well aware of. The difference is that rather than viewing the porous nature of the material as a problem — after all not many people want a pot that won’t hold water — his filters capitalize on this property.

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

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

**SECTION 3: QUESTIONS 28-40**

### Questions 28-33

Complete the flow chart, using **NO MORE THAN TWO WORDS**from the Reading Passage for each answer.

Write your answers in boxes **28-33** on your answer sheet.

**Guide to Making Water Filters**

Step one: combination of **28**  and organic material, with sufficient **29**  to create a thick mixture sun dried.

Step two: pack **30**  around the cylinders place them in **31**  which is as burning fuel for firing (maximum temperature: **32** ) filter being baked in under **33** 

### Questions 34-37

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

In boxes **34-37** on your answer sheet, write

|  |  |
| --- | --- |
| **TRUE** | if the statement agrees with the information |
| **FALSE** | if the statement contradicts the information |
| **NOT GIVEN** | If there is no information on this |

**34**  It takes half an hour for the manure to reach 950 degrees

**35**  Clay was initially found to be unsuitable for pot making

**36**  Coffee grounds are twice as effective as other materials

**37**  E-coli is the most difficult bacteria to combat

### Questions 38-40

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

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

**38**

38.When making the pot, the thickness of the wall

* **A** is large enough to let the pathogens to pass.
* **B** varied according to the temperature of the fuel,
* **C** should be the same as an adult’s forefinger.
* **D** is not mentioned by Mr. Flynn.

**39**

39.What is true about the charity, it

* **A** failed in searching the appropriate materials.
* **B** successfully manufacture a kiln based ceramic filter to be sold worldwide
* **C** found that the local clay are good enough.
* **D** intended to help build a local filter production factory.

**40**

40.Mr. Flynn’s design is purposely not being patented

* **A** because he hopes it can be freely used around the world
* **B** because he doesn’t think the technology is perfect enough,
* **C** because there are some legal obstacles.
* **D** because the design has already been applied thoroughly.