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Academic Reading Practice Test 6

SECTION 1

Forests

At the intersection of land and sea, mangrove forests support a wealth of life, from starfish to people, and may be more important to the health of the planet than we ever realized.

A Mangroves live life on the edge. With one foot on land and one in the sea, these botanical amphibians occupy a zone of desiccating heat, choking mud, and salt levels that would kill an ordinary plant within hours. Yet the forests mangroves form are among the most productive and biologically complex ecosystems on Earth. Birds roost in the canopy, shellfish attach themselves to the roots, and snakes and crocodiles come to hunt. Mangroves provide nursery grounds for fish; a food source for monkeys, deer, tree-climbing crabs, even kangaroos; and a nectar source for bats and honeybees.

B As a group, mangroves can't be defined too closely. There are some 70 species from two dozen families—among them palm, hibiscus, holly, plumbago, acanthus, legumes, and myrtle. They range from prostrate shrubs to 200-foot-high (60 meters) timber trees. Though most prolific in Southeast Asia, where they are thought to have originated, mangroves circle the globe. Most live within 30 degrees of the Equator, but a few hardy types have adapted to temperate climates, and one lives as far from the tropical sun as New Zealand. Wherever they live, they share one thing in common: They're brilliant adapters. Each mangrove has an ultrafiltration system to keep much of the salt out and a complex root system that allows it to survive in the intertidal zone. Some have snorkel-like roots called pneumatophores that stick out of the mud to help them take in air; others use prop roots or buttresses to keep their trunks upright in the soft sediments at tide's edge.

C These plants are also landbuilders par excellence. Some Aborigines in northern Australia believe one mangrove species resembles their primal ancestor, Giyapara, who walked across the mudflats and brought the tree into existence. The plants' interlocking roots stop river-borne sediments from coursing out to sea, and their trunks and branches serve as a palisade that diminishes the erosive power of waves.

D Despite their strategic importance, mangroves are under threat worldwide. They are sacrificed for salt pans, aquaculture ponds, housing developments, roads, port facilities, hotels, golf courses, and farms. And they die from a thousand indirect cuts: oil spills, chemical pollution, sediment overload, and disruption of their sensitive water and salinity balance. Calls for mangrove conservation gained a brief but significant hearing following the 2004 Indian Ocean tsunami. Where mangrove forests were intact, they served as natural breakwaters, dissipating the energy of the waves, mitigating property damage, perhaps saving lives. Post-tsunami, the logic of allowing a country's mangrove "bioshields" to be bulldozed looked not just flawed but reprehensible. Bangladesh has not lost sight of that logic, putting a great premium on the ability of mangroves to stabilize shores and trap sediments. The vast tidal woodland they form is known as the Sundarbans—literally "beautiful forest." Today, it's the largest surviving single tract of mangroves in the world.

E Throughout the tropical world it's the same: Mangrove forests are the supermarkets, lumberyards, fuel depots, and pharmacies of the coastal poor. Yet these forests are being destroyed daily. One of the greatest threats to mangrove survival comes from shrimp farming. At first glance, shrimp might seem the perfect export for a poor country in a hot climate. Rich countries have an insatiable appetite for it (shrimp has overtaken tuna to become America's favorite seafood), and the developing world has the available land and right climate to farm it.

F A prime location for shrimp ponds, though, happens to be the shore zone occupied by mangroves, an unhappy conflict of interests that has a predictable outcome: The irresistible force of commerce trumps the all-too-removable mangrove. To compound matters, shrimp farmers typically abandon their ponds after a few crop cycles (to avoid disease outbreaks and declining productivity) and move to new sites, destroying more mangroves as they go.

G As serious as the threat from shrimp farming is to the world's remaining mangroves, there looms a potentially more disastrous problem: rising sea levels. Standing as they do at the land's frontiers, mangroves will be the first terrestrial forests to face the encroaching tides.

H Loss of mangrove forests could prove catastrophic in ways only now becoming apparent. For more than 25 years Jin Eong Ong, a retired professor of marine and coastal studies in Penang, Malaysia, has been exploring a less obvious mangrove contribution: What role might these forests play in climate change? Ong and his colleagues have been studying the carbon budget of mangroves—the balance sheet that compares all the carbon inputs and outputs of the mangrove ecosystem—and they've found that these forests are highly effective carbon sinks. They absorb carbon dioxide, taking carbon out of circulation and reducing the amount of greenhouse gas. Mangroves may have the highest net productivity of carbon of any natural ecosystem, and as much as a third of this may be exported in the form of organic compounds to mudflats. Mangroves, it seems, are carbon factories, and their demolition robs the marine environment of a vital element.

I Ong's team has also shown that a significant portion of the carbon ends up in forest sediments, remaining sequestered there for thousands of years. Conversion of a mangrove forest to a shrimp pond changes a carbon sink into a carbon source, liberating the accumulated carbon back into the atmosphere—but 50 times faster than it was sequestered. If mangroves were to become recognized as carbon-storage assets, that could radically alter the way these forests are valued, says Ong. If carbon trading becomes a reality—that is, if forest-rich, carbon-absorbing countries are able to sell so-called emissions credits to more industrialized, carbon-emitting countries—it could, at the least, provide a stay of execution for mangroves.

Questions 1-5
Summary

Complete the following summary of the paragraphs of Reading Passage，using ***no more than THREE*** words from the Reading Passage for each answer. Write your answers in boxes **1-5** on your answer sheet.

Mangroves are outstanding 1_____ who are able to live life in hard environment. There are two systems----2_____ and 3_____ enabling them to survive at the intersection of land and sea. Meanwhile, Mangroves have strategic importance. 4_____ can be held by the roots, and the erosive power of waves can be reduced by their 5_____.

i

Questions 6-11

Do the following statements agree with the information given in Reading Passage **1**?
*In boxes **6-11** on your answer sheet, write*

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage*

6 Mangroves are various and similar.

7 We can find mangroves in Singapore.

8 Mangroves had played an important role in the 2004 Indian Ocean tsunami and saved lives.

9 Bangladesh is mentioned to have spent a huge sum of money on the mangroves.

10 In order to avoid loss, shrimp farmers will cut down the amount of ponds regularly.

11 Shrimp farming will greatly influence the function of mangroves that holding the carbon.

Questions 12-13
Choose the correct letter, A-F.
Write your answers in boxes *12-13* on your answer sheet.

Which TWO of the followings are NOT mentioned to have put mangrove survival in danger?

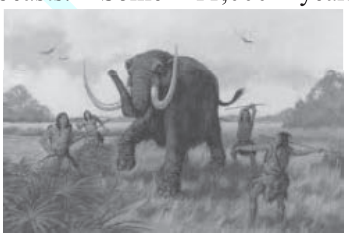
A increasing greenhouse gas
B too much sediment
C cut by human
D shrimp export
E rising sea levels
F shrimp farming

Mammoth

Mammoth is any species of the extinct genus Mammuthus, proboscideans commonly equipped with long, curved tusks and, in northern species, a covering of long hair. They lived from the Pliocene epoch from around 5 million years ago, into the Holocene at about 4,500 years ago. and were members of the family Elephantidae, which contains, along with mammoths, the two genera of modern elephants and their ancestors.

A Like their modern relatives, mammoths were quite large. The largest known species reached heights in the region of 4 m at the shoulder and weights up to 8 tonnes , while exceptionally large males may have exceeded 12 tonnes. However, most species of mammoth were only about as large as a modern Asian elephant. Both sexes bore tusks. A first, small set appeared at about the age of six months and these were replaced at about 18 months by the permanent set. Growth of the permanent set was at a rate of about 1 to 6 inches per year. Based on studies of their close relatives, the modern elephants, mammoths probably had a gestation period of 22 months, resulting in a single calf being born. Their social structure was probably the same as that of African and Asian elephants, with females living in herds headed by a matriarch, whilst bulls lived solitary lives or formed loose groups after sexual maturity.

B MEXICO CITY—Although it's hard to imagine in this age of urban sprawl and automobiles, North America once belonged to mammoths, camels, ground sloths as large as cows, bear-size beavers and other formidable beasts. Some 11,000 years ago, however, these largebodied mammals and others—about 70 species in all—disappeared. Their demise coincided roughly with the arrival of humans in the New World and dramatic climatic change—factors that have inspired several theories about the die-off. Yet despite decades of scientific



investigation, the exact cause remains a mystery. Now new findings offer support to one of these controversial hypotheses: that human hunting drove this megafaunal menagerie to extinction. The overkill model emerged in the 1960s, when it was put forth by Paul S. Martin of the University of Arizona. Since then, critics have charged that no evidence exists to support the idea that the first Americans hunted to the extent necessary to cause these extinctions. But at the annual meeting of the Society of Vertebrate Paleontology in Mexico City last October, paleoecologist John Alroy of the University of California at Santa Barbara argued that, in fact, hunting- driven extinction is not only plausible, it was unavoidable. He has determined, using a computer simulation, that even a very modest amount of hunting would have wiped these animals out.

C Assuming an initial human population of 100 people that grew no more than 2 percent annually, Alroy determined that if each band of, say, 50 people killed 15 to 20 large mammals a year, humans could have eliminated the animal populations within 1,000 years. Large mammals in particular would have been vulnerable to the pressure because they have longer gestation periods than smaller mammals and their young require extended care.

D Not everyone agrees with Alroy's assessment. For one, the results depend in part on population-size estimates for the extinct animals—figures that are not necessarily reliable. But a more specific criticism comes from mammalogist Ross D. E. MacPhee of the American Museum of Natural History in New York City, who points out that the relevant archaeological record contains barely a dozen examples of stone points embedded in mammoth bones (and none, it should be noted, are known from other megafaunal remains)—hardly what one might expect if hunting drove these animals to extinction. Furthermore, some of these species had huge ranges— the giant Jefferson's ground sloth, for example, lived as far north as the Yukon and as far south as Mexico—which would have made slaughtering them in numbers sufficient to cause their extinction rather implausible, he says.

E MacPhee agrees that humans most likely brought about these extinctions (as well as others around the world that coincided with human arrival), but not directly. Rather he suggests that people may have introduced hyperlethal disease, perhaps through their dogs or hitchhiking vermin, which then spread wildly among the immunologically naive species of the New World. As in the overkill model, populations of large mammals would have a harder time recovering. Repeated outbreaks of a hyperdisease could thus quickly drive them to the point of no return. So far MacPhee does not have empirical evidence for the hyperdisease hypothesis, and it won't be easy to come by: hyperlethal disease would kill far too quickly to leave its signature on the bones themselves. But he hopes that analyses of tissue and DNA from the last mammoths to perish will eventually reveal murderous microbes.

F The third explanation for what brought on this North American extinction does not involve human beings. Instead its proponents blame the loss on the weather. The

Pleistocene epoch witnessed considerable climatic instability, explains paleontologist Russell W. Graham of the Denver Museum of Nature and Science. As a result, certain habitats disappeared, and species that had once formed communities split apart. For some animals, this change brought opportunity. For much of the megafauna, however, the increasingly homogeneous environment left them with shrinking geographical ranges— a death sentence for large animals, which need large ranges. Although these creatures managed to maintain viable populations through most of the Pleistocene, the final major fluctuation—the so-called Younger Dryas event— pushed them over the edge, Graham says. For his part, Alroy is convinced that human hunters demolished the titans of the Ice Age. The overkill model explains everything the disease and climate scenarios explain, he asserts, and makes accurate predictions about which species would eventually go extinct. “Personally, I’m a vegetarian,” he remarks, “and I find all of this kind of gross—but believable.”

Questions 14-20

Summary

Complete the following summary of the paragraphs of Reading Passage，using ***no more than three*** words from the Reading Passage for each answer. Write your answers in boxes **14-20** on your answer sheet.

The reason why had big size mammals become extinct 11,000 years ago is under hot debate. First explanation is that _____14_____of human made it happen. This so called _____15_____ began from 1960s suggested by an expert, who however received criticism of lack of further information. Another assumption promoted by MacPhee is that deadly _____16_____ from human causes their demises. However his hypothesis required more _____17_____ to testify its validity. Graham proposed a third hypothesis that _____18_____in Pleistocene epoch drove some species disappear, reduced _____19_____ posed a dangerous signal to these giants, and _____20_____ finally wiped them out.

Questions 21-26

Use the information in the passage to match the people (listed A-C) with opinions or deeds below. Write the appropriate letters A-C in boxes 21-26 on your answer sheet.

NB you may use any letter more than once

A John Alroy
B Ross D. E. MacPhee
C Russell W. Graham

21 Human hunting well explained which species would finally disappear.

22 Further grounded proof needed to explain human's indirect impact on mammals.

23 Over hunting situation has caused die-out of large mammals.

24 Illness rather than hunting caused extensive extinction .

25 Doubt raised through the study of several fossil records.

26 Climate shift is the main reason of extinction.

SECTION 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 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

jungle-clad 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 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 islands 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 were Earth's last Edens.

I Rather than give all the credit to human skill and daring, Anderson invokes the winds of chance. 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 Niños 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 Niños" might have sped the Pacific's ancient mariners on long, unplanned voyages far over the horizon. The volley of El Niños that coincided with the second wave of 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 island hop 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 with the list of words **A-L** below.*

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

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

Choose the correct letter, **A, B, C** or **D**.
Write your answers in boxes 32-35 on your answer sheet.
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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 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

Do the following statements agree with the information given in Reading Passage 3?
In boxes 36-40 on your answer sheet, write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage*

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.