

朗阁雅思阅读考题预测

Passage 1

Traditional Farming System in Africa

A

By tradition land in Luapula is not owned by individuals, but as in many other parts of Africa is allocated by the headman or headwoman of a village to people of either sex, according to need. Since land is generally prepared by hand, one ulupwa cannot take on a very large area; in this sense land has not been a limiting resource over large parts of the province. The situation has already changed near the main townships, and there has long been a scarcity of land for cultivation in the Valley. In these areas registered ownership patterns are becoming prevalent.

B

Most of the traditional cropping in Luapula, as in the Bemba area to the east, is based on citemene, a system whereby crops are grown on the ashes of tree branches. As a rule, entire trees are not felled, but are pollarded so that they can regenerate. Branches are cut over an area of varying size early in the dry season, and stacked to dry over a rough circle about a fifth to a tenth of the pollarded area. The wood is fired before the rains and in the first year planted with the African cereal finger millet (*Eleusine coracana*).

C

During the second season, and possibly for a few seasons more the area is planted to variously mixed combinations of annuals such as maize, pumpkins (*Telfiria occidentalis*) and other cucurbits, sweet potatoes, groundnuts, Phaseolus beans and various leafy vegetables, grown with a certain amount of rotation. The diverse sequence ends with vegetable cassava, which is often planted into the developing last-but-one crop as a relay.

D

Richards (1969) observed that the practice of citemene entails a definite division of labour between men and women. A man stakes out a plot in an unobtrusive manner, since it is considered provocative towards one's neighbours to mark boundaries in an explicit way. The dangerous work of felling branches is the men's province, and involves much pride. Branches are stacked by the women, and fired by the men. Formerly women and men cooperated in the planting work, but the harvesting was always done by the women. At the beginning of the cycle little weeding is necessary, since the firing of the branches effectively destroys weeds. As the cycle progresses weeds increase and nutrients eventually become depleted to a point where further effort with annual crops is judged to be not worthwhile: at this point the cassava is planted, since it can produce a crop on nearly exhausted soil. Thereafter the plot is abandoned, and a new area pollarded for the next citemene cycle.

E

When forest is not available – this is increasingly the case nowadays – various ridging systems (ibala) are built on small areas, to be planted with combinations of maize, beans, groundnuts and

sweet potatoes, usually relayed with cassava. These plots are usually tended by women, and provide subsistence. Where their roots have year-round access to water tables mango, guava and oil-palm trees often grow around houses, forming a traditional agroforestry system. In season some of the fruit is sold by the roadside or in local markets.

F

The margins of dambos are sometimes planted to local varieties of rice during the rainy season, and areas adjacent to vegetables irrigated with water from the dambo during the dry season. The extent of cultivation is very limited, no doubt because the growing of crops under dambo conditions calls for a great deal of skill. Near towns some of the vegetable produce is sold in local markets.

G

Fishing has long provided a much needed protein supplement to the diet of Luapulans, as well as being the one substantial source of cash. Much fish is dried for sale to areas away from the main waterways. The Mweru and Bangweulu Lake Basins are the main areas of year-round fishing, but the Luapula River is also exploited during the latter part of the dry season. Several previously abundant and desirable species, such as the Luapula salmon or mpumbu (*Labeo altivelis*) and pale (*Sarotherodon machochir*) have all but disappeared from Lake Mweru, apparently due to mismanagement.

H

Fishing has always been a far more remunerative activity in Luapula than crop husbandry. A fisherman may earn more in a week than a bean or maize grower in a whole season. I sometimes heard claims that the relatively high earnings to be obtained from fishing induced an 'easy come, easy go' outlook among Luapulan men. On the other hand, someone who secures good but erratic earnings may feel that their investment in an economically productive activity is not worthwhile because Luapulans fail to cooperate well in such activities. Besides, a fisherman with spare cash will find little in the way of working equipment to spend his money on. Better spend one's money in the bars and have a good time!

I

Only small numbers of cattle or oxen are kept in the province owing to the prevalence of the tse-tse fly. For the few herds, the dambos provide subsistence grazing during the dry season. The absence of animal draft power greatly limits peoples' ability to plough and cultivate land: a married couple can rarely manage to prepare by hand-hoeing. Most people keep freely roaming chickens and goats. These act as a reserve for bartering, but may also be occasionally slaughtered for ceremonies or for entertaining important visitors. These animals are not a regular part of most peoples' diet.

J

Citemene has been an ingenious system for providing people with seasonal production of high quality cereals and vegetables in regions of acid, heavily leached soils. Nutritionally, the most serious deficiency was that of protein. This could at times be alleviated when fish was available,

provided that cultivators lived near the Valley and could find the means of bartering for dried fish. The citemene/fishing system was well adapted to the ecology of the miombo regions and sustainable for long periods, but only as long as human population densities stayed at low levels. Although population densities are still much lower than in several countries of South-East Asia, neither the fisheries nor the forests and woodlands of Luapula are capable, with unmodified traditional practices, of supporting the people in a sustainable manner.

Overall, people must learn to intensify and diversify their productive systems while yet ensuring that these systems will remain productive in the future, when even more people will need food. Increasing overall production of food, though a vast challenge in itself will not be enough, however. At the same time storage and distribution systems must allow everyone access to at least a moderate share of the total.



Questions 1-4

Complete the sentences below with words taken from Reading Passage 1.

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

Write your answers in boxes 1-4 on your answer sheet.

- 1 In Luapula land allocation is in accordance with
- 2 The citemene system provides the land with where crops are planted.
- 3 During the second season, the last planted crop is
- 4 Under suitable conditions, fruit trees are planted near

Questions 5-8

Classify the following items with the correct description.

Write your answers in boxes 5-8 on your answer sheet.

- | | |
|---|-------|
| A | fish |
| B | oxen |
| C | goats |

- 5 be used in some unusual occasions, such as celebrations.
- 6 cannot thrive for being affected by the pests.
- 7 be the largest part of creating profit.
- 8 be sold beyond the local area.

Questions 9-12

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

In boxes 9-12 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

- 9 People rarely use animals to cultivate land.
- 10 When it is a busy time, children usually took part in the labor force.
- 11 The local residents eat goats on a regular time.
- 12 Though citemene has been a sophisticated system, it could not provide enough protein.

Questions 13

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

Write the correct letter in the box 13 on your answer sheet.

What is the writer's opinion about the traditional ways of practices?

- A They can supply the nutrition that people need.
- B They are not capable of providing adequate support to the population.
- C They are productive systems that need no more improving.
- D They will be easily modified in the future.

Answer Key:

- | | | |
|--------------|---------------|-----------------------|
| 1 need | 2 (the) ashes | 3 (vegetable) cassava |
| 4 houses | 5 C | 6 B |
| 7 A | 8 A | 9 TRUE |
| 10 NOT GIVEN | 11 FALSE | 12 TRUE |
| 13 B | | |



Voyage of Going: beyond the blue line**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 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

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 world 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 explorers but also as pioneers, bringing along 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 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.

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 Éfaté, the volume of data available to researchers has expanded dramatically. The bones of at least 62 individuals have been uncovered so far—including old men, young women, even babies—and more skeletons are known to be in the ground. Archaeologists 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 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."

G

"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, 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 billowing 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.

Since 1999

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 is true

NO if the statement is false

NOT GIVEN if the information is not given in the passage

- 1 Captain Cook once expected the Hawaiians 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 century.
- 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 urn buried in Efate site was plain as it was without any decoration.

Questions 8-10

Summary

Complete the following summary of the paragraphs of Reading Passage, using **no more than two words** from the Reading Passage for each answer. Write your answers in boxes 8-10 on your answer sheet.

Scientific Evidence found in Efate site

Tests show the human remains and the charcoal found in the buried urn 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.

- 11 What did the Lapita travel in when they crossed the oceans?
- 12 In Irwin's view, what would the Lapita have relied on to bring them fast back to the base?
- 13 Which sea creatures would have been an indication to the Lapita of where to find land?

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Answer Key:

- | | | |
|-------------------------|-----------|----------------|
| 1 YES | 2 NO | 3 NO |
| 4 NOT GIVEN | 5 YES | 6 NOT GIVEN |
| 7 NO | 8 rock | 9 teeth |
| 10 descendants | 11 canoes | 12 trade winds |
| 13 seabirds and turtles | | |



Passage 2**Seed Hunting****A**

With quarter of the world's plants set to vanish within the next 50 years, Dough Alexander reports on the scientists working against the clock to preserve the Earth's botanical heritage. They travel the four corners of the globe, scouring jungles, forests and savannas. But they're not looking for ancient artefacts, lost treasure or undiscovered tombs. Just pods. It may lack the romantic allure of archaeology, or the whiff of danger that accompanies going after big game, but seed hunting is an increasingly serious business. Some seek seeds for profit—hunters in the employ of biotechnology firms, pharmaceutical companies and private corporations on the lookout for species that will yield the drugs or crops of the future. Others collect to conserve, working to halt the sad slide into extinction facing so many plant species.

B

Among the pioneers of this botanical treasure hunt was John Tradescant, an English royal gardener who brought back plants and seeds from his journeys abroad in the early 1600s. Later, the English botanist Sir Joseph Banks—who was the first director of the Royal Botanic Gardens at Kew and travelled with Captain James Cook on his voyages near the end of the 18th century—was so driven to expand his collections that he sent botanists around the world at his own expense.

C

Those heady days of exploration and discovery may be over, but they have been replaced by a pressing need to preserve our natural history for the future. This modern mission drives hunters such as Dr Michiel van Slageren, a good-natured Dutchman who often sports a wide-brimmed hat in the field—he could easily be mistaken for the cinematic hero Indiana Jones. He and three other seed hunters work at the Millennium Seed Bank, an 80 million [pounds sterling] international conservation project that aims to protect the world's most endangered wild plant species.

D

The group's headquarters are in a modern glass-and-concrete structure on a 200-hectare Estate at Wakehurst Place in the West Sussex countryside. Within its underground vaults are 260 million dried seeds from 122 countries, all stored at - 20 Celsius to survive for centuries. Among the 5,100 species represented are virtually all of Britain's 1,400 native seed-bearing plants, the most complete such collection of any country's flora.

E

Overseen by the Royal botanic gardens, the Millennium Seed Bank is the world's largest wild-plant depository. It aims to collect 24,000 species by 2010. The reason is simple: thanks to humanity's efforts, an estimated 25 per cent of the world's plants are on the verge of extinction and may vanish within 50 years. We're currently responsible for habitat destruction on an unprecedented scale, and during the past 400 years, plant species extinction rates have been

about 70 times greater than those indicated by the geological record as being 'normal'. Experts predict that during the next 50 years a further one billion hectares of wilderness will be converted to farmland in developing countries alone.

F

The implications of this loss are enormous. Besides providing staple food crops, plants are a source of many medicines and the principal supply of fuel and building materials in many parts of the world. They also protect soil and help regulate the climate. Yet, across the globe, plant species are being driven to extinction before their potential benefits are discovered.

G

The world Conservation Union has listed 5,714 threatened species is sure to be much higher. In the UK alone, 300 wild plant species are classified as endangered. The Millennium Seed Bank aims to ensure that even if a plant becomes extinct in the wild, it won't be lost forever. Stored seeds can be used to help restore damaged or destroyed environment or in scientific research to find new benefits for society – in medicine, agriculture or local industry – that would otherwise be lost.

H

Seed banks are an insurance policy to protect the world's plant heritage for the future, explains Dr Paul Smith, another Kew seed hunter. "Seed conservation techniques were originally developed by farmers," he says. "Storage is the basis what we do, conserving seeds until you can use them—just as in farming." Smith says there's no reason why any plant species should become extinct, given today's technology. But he admits that the biggest challenge is finding, naming and categorising all the world's plants. And someone has to gather these seeds before it's too late. "There aren't a lot of people out there doing this," he says. "The key is to know the flora from a particular area, and that knowledge takes years to acquire."

I

There are about 1,470 seed banks scattered around the globe, with a combined total of 5.4 million samples, of which perhaps two million are distinct non-duplicates. Most preserve genetic material for agriculture use in order to ensure crop diversity; others aim to conserve wild species, although only 15 per cent of all banked plants are wild.

J

Many seed banks are themselves under threat due to a lack of funds. Last year, Imperial College, London, examined crop collections from 151 countries and found that while the number of plant samples had increased in two thirds of the countries, budget had been cut in a quarter and remained static in another 35 per cent. The UN's Food and Agriculture Organization and the Consultative Group on International Agricultural Research has since set up the Global Conservation Trust, which aims to raise US \$260 million to protect seed banks in perpetuity.

Questions 14-19

*Do the following statements agree with the information given in Reading Passage 2?**In boxes 14-19 on your answer sheet, write*

TRUE	<i>if the statement is true</i>
FALSE	<i>if the statement is false</i>
NOT GIVEN	<i>if the information is not given in the passage</i>

- 14 The purpose of collecting seeds now is different from the past.
15 The millennium seed bank is the earliest seed bank.
16 One of major threats for plant species extinction is farmland expansion into wildness.
17 The approach that scientists apply to store seeds is similar to that used by farmers.
18 Technological development is the only hope to save plant species.
19 The works of seed conservation are often limited by financial problems.

Questions 20-24

Summary*Complete the following summary of the paragraphs of Reading Passage 2.**Using **no more than three words** from the Reading Passage for each answer.**Write your answers in boxes 20-24 on your answer sheet.*

Some people collect seeds for the purpose of protecting certain species from 20_____; others collect seeds for their ability to produce 21_____. They are called seed hunters. The 22_____ of them included both gardeners and botanists, such as 23_____, who financially supported collectors out of his own pocket. The seeds collected are usually stored in seed banks, one of which is the famous millennium seed bank, where seeds are all stored in the 24_____ at a low temperature.

Questions 25-26

*Choose the correct letter, A-E.**Write your answers in boxes 25.26 on your answer sheet.*Which **TWO** of the followings are provided by plants to the human?

- A food
- B fuels
- C clothes
- D energy
- E commercial products

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Answer Key:

- | | | |
|---------------------|-----------------------|-------------|
| 14 TRUE | 15 NOT GIVEN | 16 TRUE |
| 17 TRUE | 18 FALSE | 19 TRUE |
| 20 extinction | 21 drugs, crops | 22 pioneers |
| 23 Sir Joseph Banks | 24 underground vaults | 25 A |
| 26 B | | |



The evolutionary mystery: Crocodile survives

A

Crocodiles have been around for 200 million years, but they're certainly not primitive. The early forms of crocodiles are known as Crocodilia. Since they spent most of their life beneath water, accordingly their body adapted to aquatic lifestyle. Due to the changes formed within their body shape and tendency to adapt according to the climate they were able to survive when most of the reptiles of their period are just a part of history. In their tenure on Earth, they've endured the impacts of meteors, planetary refrigeration, extreme upheavals of the Earth's tectonic surface and profound climate change. They were around for the rise and fall of the dinosaurs, and even 65 million years of supposed mammalian dominance has failed to loosen their grip on the environments they inhabit.

B

The first crocodile-like ancestors appeared about 230 million years ago, with many of the features that make crocs such successful stealth hunters already in place: streamlined body, long tail, protective armour and long jaws. They have long head and a long tail that helps them to change their direction in water while moving. They have four legs which are short and are webbed. Never underestimate their ability to move on ground. When they move they can move at such a speed that won't give you a second chance to make a mistake by going close to them especially when hungry. They can lift their whole body within seconds from ground.

C

Crocodilians have no lips. When submerged in their classic 'sit and wait' position, their mouths fill with water. The **nostrils** on the tip of the elongated snout lead into canals that run through bone to open behind the **valve** - allowing the crocodilian to breathe through its nostrils even though its mouth is under water. When the animal is totally submerged, another valve seals the nostrils, so the crocodilian can open its mouth to catch prey with no fear of drowning. The thin skin on the crocodilian head and face is covered with tiny, pigmented domes, forming a network of neural pressure receptors that can detect barely perceptible vibrations in the water. This enables a crocodile lying in silent darkness to suddenly throw its head sideways and grasp with deadly accuracy small prey moving close by.

D

Like other reptiles, crocodiles are endothermic animals (cold-blooded, or whose body temperature varies with the temperature of the surrounding environment) and, therefore, need to sunbathe, to raise the temperature of the body. On the contrary, if it is too hot, they prefer being in water or in the shade. Being a cold-blooded species, the crocodilian heart is unique in having an actively controlled valve that can redirect, at will, blood flow away from the lungs and recirculate it around the body, taking oxygen to where it's needed most. In addition, their metabolism is a very slow one, so, they can survive for long periods without feeding. Crocodiles are capable of slowing their metabolism even further allowing them to survive for a full year without feeding.

E

Crocodiles use a very effective technique to catch the prey. The prey remains almost unaware of the fact that there can be any crocodile beneath water. The crocodile is successful because it switches its feeding methods. It hunts fish, grabs birds at the surface, hides among the water edge vegetation to wait for a gazelle to come by, and when there is a chance for an ambush, the crocodile lunges forward, knocks the animal with its powerful tail and then drags it to water where it quickly drowns. Another way is to wait motionless for an animal to come to the water's edge and grabs it by its nose where it is held to drown.

F

In many places inhabited by crocodilians, the hot season brings drought that dries up their hunting grounds and takes away the means to regulate their body temperature. They allowed reptiles to dominate the terrestrial environment. Furthermore, many crocs protect themselves from this by digging burrows and entombing themselves in mud, waiting for months without access to food or water, until the rains arrive. To do this, they sink into a quiescent (寂静的) state called aestivation (休憩, 夏眠).

G

Most of (At least nine species of) crocodilian are thought to aestivate during dry periods. Kennett and Christian's six-year study of Australian freshwater crocodiles - *Crocodylus johnstoni* (**the King Crocodiles**). The crocodiles spent almost four months a year underground without access to water. Doubly labeled water was used to measure field metabolic rates and water flux, and plasma (and cloacal fluid samples were taken at approximately monthly intervals during some years to monitor the effects of aestivation with respect to the accumulation of nitrogenous wastes and electrolyte concentrations. Doubly found that the crocodiles' metabolic engines tick over, producing waste and using up water and fat reserves. Waste products are stored in the urine, which gets increasingly concentrated as the months pass. However, the concentration of waste products in the blood changes very little, allowing the crocodiles to function normally. Furthermore, though the animals lost water and body mass (just over one-tenth of their initial mass) while underground, the losses were proportional: on emergence, the aestivating crocodiles were not dehydrated and exhibited no other detrimental effects such as a decreased growth rate. Kennett and Christian believe this ability of individuals to sit out the bad times and endure long periods of enforced starvation must surely be key to the survival of the crocodilian line through time.

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Questions 14-20

Reading passage 2 has seven paragraphs, A-G; Choose the correct heading for paragraphs A-G from the list below.

Write the correct number, i-xi, in boxes 14-20 on your answer sheet.

List of Headings

- i The competitors with the dinosaur
- ii A historical event for the Supreme survivors.
- iii What makes the crocodile the fastest running animal on land
- iv Regulated body temperature by the surrounding environment
- v Underwater aid in body structure offered to a successful predator
- vi The perfectly designed body for a great land roamer
- vii Slow metabolisms which makes crocodile a unique reptile
- viii The favorable features in the impact of a drought
- ix Shifting Eating habits and food intake
- x A project on a special mechanism
- xi A unique findings has been achieved recently

- 14 Paragraph A
- 15 Paragraph B
- 16 Paragraph C
- 17 Paragraph D
- 18 Paragraph E
- 19 Paragraph F
- 20 Paragraph G

Questions 21-26

Complete the summary and write the correct answer (**no more than two words or a number**) in boxes 21-26 on your answer sheet.

In many places inhabited by crocodilians, most types of the crocodile has evolved a successful scheme to survive in the drought brought by a 21..... According to Kennett and Christian's six-year study of Australian freshwater crocodiles' aestivation, they found Aestivating crocodiles spent around 22..... a year without access to 23..... The absolute size of body water pools declined proportionately with24...; thus there is no sign of 25..... and other health-damaging impact in the crocodiles even after an aestivation period. This super capacity helps crocodiles endure the tough drought without slowing their speed of 26..... significantly

Answer Key:

- | | | |
|----------------|-------------------------------------|--------------|
| 14 ii | 15 vi | 16 v |
| 17 iv | 18 ix | 19 viii |
| 20 x | 21 dry season/hot season/dry period | |
| 22 four months | 23 water | 24 body mass |
| 25 dehydration | 26 growth | |



Passage 3**Mechanisms of Linguistic Change****A**

The changes that have caused the most disagreement are those in pronunciation. We have various sources of evidence for the pronunciations of earlier times, such as the spellings, the treatment of words borrowed from other languages or borrowed by them, the descriptions of contemporary grammarians and spelling-reformers, and the modern pronunciations in all the languages and dialects concerned. From the middle of the sixteenth century, there are in England writers who attempt to describe the position of the speech-organs for the production of English phonemes, and who invent what are in effect systems of phonetic symbols. These various kinds of evidence, combined with the knowledge of the mechanisms of speech-production, can often give us a very good idea of the pronunciation of an earlier age, though absolute certainty is never possible.

B

When we study the pronunciation of a language over any period of a few generations or more, we find there are always large-scale regularities in the changes: for example, over a certain period of time, just about all the long [a:] vowels in a language may change into long [e:] vowels, or all the [b] consonants in a certain position (for example at the end of a word) may change into [p] consonants. Such regular changes are often called sound laws. There are no universal sound laws (even though sound laws often reflect universal tendencies), but simply particular sound laws for one given language (or dialect) at one given period.

C

It is also possible that fashion plays a part in the process of change. It certainly plays a part in the spread of change: one person imitates another, and people with the most prestige are most likely to be imitated, so that a change that takes place in one social group may be imitated (more or less accurately) by speakers in another group. When a social group goes up or down in the world, its pronunciation may gain or lose prestige. It is said that, after the Russian Revolution of 1917, the upper-class pronunciation of Russian, which had formerly been considered desirable, became on the contrary an undesirable kind of accent to have, so that people tried to disguise it. Some of the changes in accepted English pronunciation in the seventeenth and eighteenth centuries have been shown to consist in the replacement of one style of pronunciation by another style already existing, and it is likely that such substitutions were a result of the great social changes of the period: the increased power and wealth of the middle classes, and their steady infiltration upwards into the ranks of the landed gentry, probably carried elements of middle-class pronunciation into upper-class speech.

D

A less specific variant of the argument is that the imitation of children is imperfect: they copy their parents' speech, but never reproduce it exactly. This is true, but it is also true that such deviations from adult speech are usually corrected in later childhood. Perhaps it is more significant that even adults show a certain amount of random variation in their pronunciation of

a given phoneme, even if the phonetic context is kept unchanged. This, however, cannot explain changes in pronunciation unless it can be shown that there is some systematic trend in the failures of imitation: if they are merely random deviations they will cancel one another out and there will be no net change in the language.

E

One such force which is often invoked is the principle of ease, or minimization of effort. The change from fussy to fuzzy would be an example of assimilation, which is a very common kind of change. Assimilation is the changing of a sound under the influence of a neighbouring one. For example, the word scant was once skamt, but the /m/ has been changed to /n/ under the influence of the following /t/. Greater efficiency has hereby been achieved, because /n/ and /t/ are articulated in the same place (with the tip of the tongue against the teeth-ridge), whereas /m/ is articulated elsewhere (with the two lips). So the place of articulation of the nasal consonant has been changed to conform with that of the following plosive. A more recent example of the same kind of thing is the common pronunciation of football as foopball.

F

Assimilation is not the only way in which we change our pronunciation in order to increase efficiency. It is very common for consonants to be lost at the end of a word: in Middle English, word-final [-n] was often lost in unstressed syllables, so that baken 'to bake' changed from ['ba:kən] to ['ba:kə], and later to [ba:k]. Consonant-clusters are often simplified. At one time there was a [t] in words like castle and Christmas, and an initial [k] in words like knight and know. Sometimes a whole syllable is dropped out when two successive syllables begin with the same consonant (haplology): a recent example is temporary, which in Britain is often pronounced as if it were tempory.

Questions 27-30

Complete the summary below.

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

Write your answers in boxes 27-30 on your answer sheet.

The pronunciation of living language undergo changes throughout thousands of years. Large scale regular Changes are usually called 27 _____. There are three reasons for these changes. Firstly, the influence of one language on another; when one person imitates another pronunciation (the most prestige's), the imitation always partly involving factor of 28 _____. Secondly, the imitations of children from adults' language sometimes are 29 _____, and may also contribute to this change if there are insignificant deviations though later they may be corrected. Finally, for those random variations in pronunciation, the deeper evidence lies in the 30 _____ or minimization of effort.

Questions 31-37

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

In boxes 31-37 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

- 31 it is impossible for modern people to find pronunciation of words in an earlier age
- 32 The great change of language in Russian history is related to the rising status and fortune of middle classes.
- 33 All the children learn speeches from adults while they assume that certain language is difficult to imitate exactly.
- 34 Pronunciation with causal inaccuracy will not exert big influence on language changes.
- 35 The link of 'mt' can be influenced being pronounced as 'nt'
- 36 The [g] in gnat not being pronounced will not be spelt out in the future.
- 37 The sound of 'temporary' cannot wholly present its spelling.

Questions 38-40

Look at the following sentences and the list of statements below.

Match each statement with the correct sentence, A-D.

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

- | | |
|---|---|
| A | Since the speakers can pronounce it with less effort |
| B | Assimilation of a sound under the influence of a neighbouring one |
| C | It is a trend for changes in pronunciation in a large scale in a given period |
| D | Because the speaker can pronounce [n] and [t] both in the same time |

- 38 As a consequence, 'b' will be pronounced as 'p'
- 39 The pronunciation of [mt] changed to [nt]
- 40 The omit of 't' in the sound of Christmas

Answer Key:

27	sound laws	28	fashion	29	imperfect
30	principle of	31	FALSE	32	FALSE
33	NOT GIVEN	34	TRUE	35	TRUE
36	NOT GIVEN	37	TRUE	38	C
39	B	40	A		



What are Dreams?

A

Thousands of years ago, dreams were seen as messages from the gods, and in many cultures, they are still considered prophetic. In ancient Greece, sick people slept at the temples of Asclepius, the god of medicine, in order to receive dreams that would heal them. Modern dream science really begins at the end of the 19th century with Sigmund Freud, who theorized that dreams were the expression of unconscious desires often stemming from childhood. He believed that exploring these hidden emotions through analysis could help cure mental illness. The Freudian model of psychoanalysis dominated until the 1970s, when new research into the chemistry of the brain showed that emotional problems could have biological or chemical roots, as well as environmental ones. In other words, we weren't sick just because of something our mothers did (or didn't do), but because of some imbalance that might be cured with medication.

B

After Freud, the most important event in dream science was the discovery in the early 1950s of a phase of sleep characterized by intense brain activity and rapid eye movement (REM). People awakened in the midst of REM sleep reported vivid dreams, which led researchers to conclude that most dreaming took place during REM. Using the electroencephalograph (EEG), researchers could see that brain activity during REM resembled that of the waking brain. That told them that a lot more was going on at night than anyone had suspected. But what, exactly?

C

Scientists still don't know for sure, although they have lots of theories. On one side are scientists like Harvard's Allan Hobson, who believes that dreams are essentially random. In the 1970s, Hobson and his colleague Robert McCarley proposed what they called the "activation-synthesis hypothesis" which describes how dreams are formed by nerve signals sent out during REM sleep from a small area at the base of the brain called the pons. These signals, the researchers said, activate the images that we call dreams. That put a crimp in dream research; if dreams were meaningless nocturnal firings, what was the point of studying them?

D

Adult humans spend about a quarter of their sleep time in REM. much of it dreaming. During that time, the body is essentially paralyzed but the brain is buzzing. Scientists using PET and fMRI technology to watch the dreaming brain have found that one of the most active areas during REM is the limbic system, which controls our emotions. Much less active is the prefrontal cortex, which is associated with logical thinking. That could explain why dreams in REM sleep often lack a coherent story line (Some researchers have also found that people dream in non-REM sleep as well, although those dreams generally are less vivid.) Another active part of the brain in REM sleep is the anterior cingulate cortex, which detects discrepancies. Eric Nofzinger, director of the Sleep Neuroimaging Program at the University of Pittsburgh Medical Center, thinks that could be why people often figure out thorny problems in their dreams. "as if the brain surveys the internal milieu and tries to figure out what it should be doing, and whether our actions conflict with who

we are," he says.

E

These may seem like vital mental functions, but no one has yet been able to say that REM inhibitors, an older class of antidepressants, essentially block REM sleep without any detectable effects, although people do get a "REM rebound" - extra REM - if they stop the medication. That's also true of selective serotonin reuptake inhibitors (SSRIs) like Prozac, which reduce dreaming by a third to a half. Even permanently losing the ability to dream doesn't have to be disabling. Israeli researcher Peretz Lavie has been observing a patient named Yuval Chamtzani, who was injured by a fragment of shrapnel that penetrated his brain when he was 19. As a result, he gets no REM sleep and doesn't remember any dreams. But Lavie says that Chamtzani, now 55, "is probably the most normal person I know and one of the most successful ones." He's a lawyer, a painter and the editor of a puzzle column in a popular Israeli newspaper.

F

The mystery of REM sleep is that even though it may not be essential, it is ubiquitous — at least in mammals and birds. But that doesn't mean all mammals and birds dream (or if they do, they're certainly not — talking about it). Some researchers think REM may have evolved for physiological reasons. "One thing that's unique about mammals and birds is that they regulate body temperature", says neuroscientist Jerry Siegel, director of UCLA's Center for Sleep Research. "There's no good evidence that any coldblooded animal has REM sleep." REM sleep heats up the brain and non-REM cools it off, Siegel says, and that could mean that the changing sleep cycles allow the brain to repair itself. "It seems likely that REM sleep is filling a basic physiological function and that dreams are a kind of epiphenomenon," Siegel says - an extraneous byproduct; like foam on beer.

G

Whatever the function of dreams at night, they clearly can play a role in therapy during the day. The University of Maryland's Clara Hill, who has studied the use of dreams in therapy, says that dreams are a "back door" into a patient's thinking. "Dreams reveal stuff about you that you didn't know was there," she says. The therapists she trains to work with patients' dreams are, in essence, heirs to Freud, using dream imagery to uncover hidden emotions and feelings. Dreams provide clues to the nature of more serious mental illness. Schizophrenics, for example, have poor-quality dreams, usually about objects rather than people. "If you're going to understand human behavior," says Rosalind Cartwright, a chairman of psychology at Rush University Medical Center in Chicago, "here's a big piece of it. Dreaming is our own storytelling time - to help us know who we are, where we're going and how we're going to get there." Cartwright has been studying depression in divorced men and women, and she is finding that "good dreamers", people who have vivid dreams with strong story lines, are less likely to remain depressed. She thinks that dreaming helps diffuse strong emotions. "Dreaming is a mental- health activity" she says.

Questions 27-31

Reading Passage 3 has seven paragraphs, A-G.

Which paragraph contains the following information?

Write the correct number, A-G, in boxes 27-31 on your answer sheet.

- 27 Reference of an artist's dreams who has versatile talents.
- 28 Dream actually happens to many animals.
- 29 Dreams are related with benefit and happiness.
- 30 Advanced scientific technology applied in investigation of REM stage.
- 31 Questioning concern raised about usefulness of investigation on dreams.

Questions 32-34

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

Write the correct letter in boxes 32-34 on your answer sheet.

- 32 What were dreams regarded as by ancient people?
 - A superstitious and unreliable
 - B communication with gods and chance to predict the future
 - C medical relief for children with ill desire
 - D rules to follow as they fell asleep in a temple
- 33 According to Paragraph D, which part of brain controls reasoning?
 - A anterior cingulate cortex
 - B internal cortex
 - C limbic system
 - D prefrontal cortex
- 34 What can we conclude when author cited reference on dreams in animals?
 - A Brain temperature rises when REM pattern happens.
 - B The reason why mammals are warm blooded
 - C mammals are bound to appear with more frequent REM.
 - D REM makes people want to drink beer with more foam.

Questions 35-40

Look at the following people and the list of statements below.

Match each statement with the correct person, A-G.

Write the correct letter, A-G, in boxes 35-40 on your answer sheet.

List of people

- A Sigmund Freud
- B Allan Hobson (Harvard)
- C Robert McCarley
- D Eric Nofzinger
- E Jerry Siegel
- F Clara Hill
- G Rosalind Cartwright

- 35 Dreams sometimes come along with REM as no more than a trivial attachment.
- 36 Exploring patients' dreams would be beneficial for treatment as it reveals the unconscious thinking.
- 37 Dreams help people cope with difficulties they meet in daytime.
- 38 Decoding dreams would provide a remind to human desire in early days.
- 39 Dreams are a body function to control strong emotion.
- 40 Dreams seem to be as randomly occurring and have limited research significance.



Answer Key:

27 E	28 F	29 G	30 D
31 B	32 B	33 D	34 A
35 E	36 F	37 D	38 A
39 G	40 B		

