IELTS READING PRACTICE TESTS 2016

CONTENT

TEST 1

SECTION 1

You should spend about 20 minutes on Questions 1-13, which are based on Reading Passage 1 on the following pages

Natural Pesticide in India

A A dramatic story about cotton farmers in India shows how destructive pesticides can be for people and the environment; and why today's agriculture is so dependent on pesticides. This story also shows that it's possible to stop using chemical pesticides without losing a crop to ravaging insects, and it explains how to do it.

B The story began about 30 years ago, a handful of families migrated from the Guntur district of Andhra Pradesh, southeast India, into Punukula, a community of around 900 people farming plots of between two and 10 acres. The outsiders from Guntur brought cotton-culture with them. Cotton wooed farmers by promising to bring in more hard cash than the mixed crops they were already growing to eat and sell: millet, sorghum, groundnuts, pigeon peas, mung beans, chilli and rice. But raising cotton meant using pesticides and fertilisers – until then a mystery to the mostly illiterate farmers of the community. When cotton production started spreading through Andhra Pradesh state. The high value of cotton made it an exceptionally attractive crop, but growing cotton required chemical fertilizers and pesticides. As most of the farmers were poor, illiterate, and without previous experience using agricultural chemicals, they were forced to rely on local, small-scale agricultural dealers for advice. The dealers sold them seeds, fertilizers, and pesticides on credit and also guaranteed purchase of their crop. The dealers themselves had little technical knowledge about pesticides. They merely passed on promotional information from multinational chemical companies that supplied their products.

C At first, cotton yields were high, and expenses for pesticides were low because cotton pests had not yet moved in. The farmers had never earned so much! But within a few years, cotton pests like bollworms and aphids plagued the fields, and the farmers saw how rapid insect evolution can be. Repeated spraying killed off the weaker pests, but left the ones most resistant to pesticides to multiply. As pesticide resistance mounted, the farmers had to apply more and more of the pesticides to get the same results. At the same time, the pesticides killed off birds, wasps, beetles, spiders, and other predators that had once provided natural control of pest insects. Without these predators, the pests could destroy the entire crop if pesticides were not used. Eventually, farmers were mixing

pesticide “cocktails” containing as many as ten different brands and sometimes having to spray their cotton as frequently as two times a week. They were really hooked!
D The villagers were hesitant, but one of Punukula’s village elders decided to risk trying the natural methods instead of pesticides. His son had collapsed with acute pesticide poisoning and survived but the hospital bill was staggering. SECURE’s staff coached this villager on how to protect his cotton crop by using a toolkit of natural methods chat India’s Center for Sustainable Agriculture put together in collaboration with scientists at Andhra Pradesh’s state university. They called the toolkit “Non-Pesticide Management” — or” NPM.”

E The most important resource in the NPM toolkit was the neem tree (Azadirachta indica) which is common throughout much of India. Neem tree is a broad-leaved evergreen tree related to mahogany. It protects itself against insects by producing a multitude of natural pesticides that work in a variety of ways: with an arsenal of chemical defenses that repel egg-laying, interfere with insect growth, and most important, disrupt the ability of crop-eating insects to sense their food.

F In fact, neem has been used traditionally in India to protect stored grains from insects and to produce soaps, skin lotions, and other health products. To protect crops from insects, neem seeds are simply ground into a powder that is soaked overnight in water. The solution is then sprayed onto the crop. Another preparation, neem cake, can be mixed into the soil to kill pests and diseases in the soil, and it doubles as an organic fertiliser high in nitrogen. Neem trees grow locally, so the only “cost” is the labor to prepare neem for application to fields.

G The first farmer’s trial with NPM was a complete success! His harvest was as good as the harvests of farmers that were using pesticides, and he earned much more because he did not spend a single rupee on pesticides. Inspired by this success, 20 farmers tried NPM the next year. SECURE posted two well-trained staff in Punukula to teach and help everyone in the village, and the village women put pressure on their husbands to stop using toxic chemicals. Families that were no longer exposing themselves to pesticides began to feel much better, and the rapid improvements in income, health, and general wellbeing quickly sold everyone on the value of NPM. By 2000, all the farmers in Punukula were using NPM, not only for cotton, but for their other crops as well.

H The suicide epidemic came to an end. And with the cash, health, and energy that returned when they stopped poisoning themselves with pesticides, the villagers were inspired to start more community and business projects. The women of Punukula created a new source of income by collecting, grinding, and selling neem seeds for NPM in other villages. The villagers rescued their indentured children and gave them special six-month “catch-up’ courses to return to school.

I Fighting against pesticides, and winning, increased village solidarity, self-confidence, and optimism about the future. When dealers tried to punish NPM users by paying less for NPM cotton, the farmers united to form a marketing cooperative that found fairer prices elsewhere. The leadership and collaboration skills that the citizens of Punukula developed in the NPM struggle have helped them to take on other challenges, like water purification, building a cotton gin to add value to the cotton before they sell it, and convincing the state government to support NPM over the objection of multi-national pesticide corporations.

Questions 1-4

Do the following statements agree with the information given in Reading Passage 1? In boxes 1-4 on your answer sheet, write

TRUE if the statement is true

FALSE if the statement is false

NOT GIVEN if the information is not given in the passage

1.Cotton in Andhra Pradesh state could really bring more income to the bcal farmers than traditional farming.

2. The majority of farmers had used the agricultural pesticides before 30 years ago.

3. The yield of cotton is relatively tower than that of other agricultural crops.

4. The farmers didn't realize the spread of the pests was so fast.

Questions 5-11

Complete the summary below.

Choose NO MORE THAN TWO WORDS from the passage for each answer, Write your answers in boxes 5-10 on your answer sheet.

The Making of pesticide protecting crops against insects

The broad-leaved neem tree was chosen, it is a fast-growing and 5_____ tree and produces amount of 6_____ for itself that can be effective like insects repellent. Firstly, neem seeds need to be crushed into 7_____ form, which is left behind 8_____ in water. Then we need to spray the solution onto the crop. A special 9_____ is used when mix with soil in order to eliminate bugs and bacteria, and its effect 10_____ when it adds the level of 11_____in this organic fertilizer meanwhile.

Questions 12-14

Answer the questions below.

*Choose **NO MORE THAN TWO WORDS AND/OR A NUMBE**R from the passage for each answer Write your answers in boxes 12-14 on your answer sheet.*

12. In which year did all the farmers use NPM for their crops in Punukula?

13. What gave the women of Punukula a business opportunity to NPMs?

14. Name one project that the citizens of Punukula decide to develope in the NPM.

SECTION 2

You should spend about 20 minutes on Questions 15 – 27, which are based on Reading Passage 2 below.

Numeracy: Can animals tell numbers?

A Prime among basic numerical faculties is the ability to distinguish between a larger and a smaller number, says psychologist Elizabeth Brannon. Humans can do this with ease – providing the ratio is big enough – but do other animals share this ability? In one experiment, rhesus monkeys and university students examined two sets of geometrical objects that appeared briefly on a computer monitor. They had to decide which set contained more objects. Both groups performed successfully but, importantly, Brannon's team found that monkeys, like humans, make more errors when two sets of objects are close in number. The students' performance ends up looking just like a monkey's. It's practically identical, 'she says.

B Humans and monkeys are mammals, in the animal family known as primates. These are not the only animals whose numerical capacities rely on ratio, however. The same seems to apply to some amphibians. Psychologist Claudia Uller's team tempted salamanders with two sets of fruit flies held in clear tubes. In a series of trials, the researchers noted which tube the salamanders scampered towards, reasoning that if they had a capacity to recognise number, they would head for the larger number. The salamanders successfully discriminated between tubes containing 8 and 16 flies respectively, but not between 3 and 4, 4 and 6, or 8 and 12. So it seems that for the salamanders to discriminate between two numbers, the larger must be at least twice as big as the smaller. However, they could differentiate between 2 and 3 flies just as well as between 1 and 2 flies, suggesting they recognise small numbers in a different way from larger numbers.

C Further support for this theory comes from studies of mosquitofish, which instinctively join the biggest shoal they can. A team at the University of Padova found that while mosquitofish can tell the difference between a group containing 3 shoal-mates and a group containing 4, they did not show a preference between groups of 4 and 5. The team also found that mosquitofish can discriminate between numbers up to 16, but only if the ratio between the fish in each shoal was greater than 2:1. This indicates that the fish, like salamanders, possess both the approximate and precise number systems found in more intelligent animals such as infant humans and other primates.

D While these findings are highly suggestive, some critics argue that the animals might be relying on other factors to complete the tasks, without considering the number itself. 'Any study that's claiming an animal is capable of representing number should also be controlling for other factors, ' says Brannon. Experiments have confirmed that primates can indeed perform numerical feats without extra clues, but what about the more primitive animals?

E To consider this possibility, the mosquito fish tests were repeated, this time using varying geometrical shapes in place of fish. The team arranged these shapes so that they had the same overall surface area and luminance even though they contained a different number of objects. Across hundreds of trials on 14 different fish, the team found they consistently discriminated 2 objects from 3. The team is now testing whether mosquitofish can also distinguish 3 geometric objects from 4.

F Even more primitive organisms may share this ability. Entomologist Jurgen Tautz sent a group of bees down a corridor, at the end of which lay two chambers – one which contained sugar water, which they like, while the other was empty. To test the bees' numeracy, the team marked each chamber with a different number of geometrical shapes – between 2 and 6. The bees quickly learned to match the number of shapes with the correct chamber. Like the salamanders and fish, there was a limit to the bees'

mathematical prowess – they could differentiate up to 4 hapes, but failed with 5 or 6 shapes.

G These studies still do not show whether animals learn to count through training, or whether they are born with the skills already intact. If the latter is true, it would suggest there was a strong evolutionary advantage to a mathematical mind. Proof that this may be the case has emerged from an experiment testing the mathematical ability of three- and four-day-old chicks. Like mosquitofish, chicks prefer to be around as many of their siblings as possible, so they will always head towards a larger number of their kin. If chicks spend their first few days surrounded by certain objects, they become attached to these objects as if they were family. Researchers placed each chick in the middle of a platform and showed it two groups of balls of paper. Next, they hid the two piles behind screens, changed the quantities and revealed them to the chick. This forced the chick to perform simple computations to decide which side now contained the biggest number of its "brothers". Without any prior coaching, the chicks scuttled to the larger quantity at a rate well above chance. They were doing some very simple arithmetic, claim the researchers.

H Why these skills evolved is not hard to imagine, since it would help almost any animal forage for food. Animals on the prowl for sustenance must constantly decide which tree has the most fruit, or which patch of flowers will contain the most nectar. There are also other, less obvious, advantages of numeracy. In one compelling example, researchers in America found that female coots) appear to calculate how many eggs they have laid – and add any in the nest laid by an intruder – before making any decisions about adding to them. Exactly how ancient these skills are is difficult to determine, however. Only by studying the numerical abilities of more and more creatures using standardized procedures can we hope to understand the basic preconditions for the evolution of number.

Questions 15-21

Answer the table below.

Choose NO MORE THAN THREE WORDS AND/OR A NUMBER from the passage for each answer. Write your answers in boxes 15-21 on your answer sheet

Animal Numeracy		
Subjects	Experiments	Results
Mammals and birds		
rhesus monkeys and humans	looked at two sets of geometrical objects on computer screen	performance of two groups is almost 15.....

Chicks	chose between two sets of 16..... which are altered	chicks can do calculations in order to choose larger group
Coots	behaviour of female birds was observed	bird seems to have ability to 17.....
Amphibians, fish and insects		
Salamanders	offered clear tubes containing different quantities of 18.....	salamanders distinguish between numbers over four if bigger number is at least two times larger
19	shown real shoals and later artificial ones of geometrical shapes; these are used to check influence of total 20..... and brightness	subjects know difference between two and three and possibly three and four, but not between four and five
Bees	had to learn where 21..... was stored	could soon choose correct place

Do the following statements agree with the information given in Reading Passage 2? In boxes 22-27 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

22 Primates are better at identifying the larger of two numbers if one is much bigger than the other.

23 Jurgen Tautz trained the insects in his experiment to recognise the shapes of individual numbers.

24 The research involving young chicks took place over two separate days.

25 The experiment with chicks suggests that some numerical ability exists in newborn animals.

26 Researchers have experimented by altering quantities of nectar or fruit available to certain wild animals.

27 When assessing the number of eggs in their nest, coots take into account those of other birds.

Section 3

Multitasking Debate

Can you do them at the same time?

A Talking on the phone while driving isn't the only situation where we're worse at multitasking than we might like to think we are. New studies have identified a bottleneck in our brains that some say means we are fundamentally incapable of true multitasking If experimental findings reflect real-world performance, people who think they are multitasking are probably just underperforming in all – or at best, all but one – of their parallel pursuits. Practice might improve your performance, but you will never be as good as when focusing on one task at a time.

B The problem, according to Rene Marois, a psychologist at Vanderbilt University in Nashville, Tennessee, is that there's a sticking point in the brain. To demonstrate this, Marois devised an experiment to locate it. Volunteers watch a screen and when a particular image appears, a red circle, say, they have to press a key with their index finger. Different coloured circles require presses from different fingers. Typical response time is about half a second, and the volunteers quickly reach their peak performance. Then they learn to listen to different recordings and respond by making a specific sound. For instance, when they hear a bird chirp, they have to say "ba"; an electronic sound should elicit a "ko", and so on. Again, no problem. A normal person can do that in about half a second, with almost no effort.

C The trouble comes when Marois shows the volunteers an image, and then almost immediately plays them a sound. Now they're flummoxed. "If you show an image and play a sound at the same time, one task is postponed, " he says. In fact, if the second task is introduced within the half-second or so it takes to process and react to the first, it will simply be delayed until the first one is done. The largest dual-task delays occur when the two tasks are presented simultaneously; delays progressively shorten as the interval between presenting the tasks lengthens.

D There are at least three points where we seem to get stuck, says Marois. The first is in simply identifying what I we're looking at. This can take a few tenths of a second, during which time we are not able to see and recognise second item. This limitation is known as the "attentional blink": experiments have shown that if you're watching out for a particular event and a second one shows up unexpectedly any time within this crucial window of concentration, it may register in your visual cortex but you will be unable to act upon it. Interestingly, if you don't expect the first event, you have no trouble responding to the second. What exactly causes the attentional blink is still a matter for debate.

E A second limitation is in our short-term visual memory. It's estimated that we can keep track of about four items at a time, fewer if they are complex. This capacity shortage is thought to explain, in part, our astonishing inability to detect even huge changes in scenes that are otherwise identical, so-called "change blindness". Show people pairs of near-identical photos – say, aircraft engines in one picture have disappeared in the other – and they will fail to spot the differences. Here again, though, there is disagreement about what the essential limiting factor really is. Does it come down to a dearth of storage capacity, or is it about how much attention a viewer is paying?

F A third limitation is that choosing a response to a stimulus – braking when you see a child in the road, for instance, or replying when your mother tells you over the phone that she' s thinking of leaving your dad – also takes brainpower. Selecting a response to one of these things will delay by some tenths of a second your ability to respond to the other. This is called the "response selection bottleneck" theory, first proposed in 1952.

G But David Meyer, a psychologist at the University of Michigan, Ann Arbor, doesn't buy the bottleneck idea. He thinks dual-task interference is just evidence of a strategy used by the brain to prioritise multiple activities. Meyer is known as something of an optimist by his peers. He has written papers with titles like "Virtually perfect time-sharing in dual-task performance: Uncorking the central cognitive bottleneck". His experiments have shown that with enough practice – at least 2000 tries – some people can execute two tasks simultaneously as competently as if they were doing them one after the other. He suggests that there is a central cognitive processor that coordinates all this and, what's more, he thinks it uses discretion sometimes it chooses to delay one task while completing another.

H Marois agrees that practice can sometimes erase interference effects. He has found that with just 1 hour of practice each day for two weeks, volunteers show a huge improvement at managing both his tasks at once. Where he disagrees with Meyer is in what the brain is doing to achieve this. Marois speculates that practice might give us the chance to find less congested circuits to execute a task – rather like finding trusty back streets to avoid heavy traffic on main roads – effectively making our response to the task subconscious. After all, there are plenty of examples of subconscious multitasking that most of us routinely manage: walking and talking, eating and reading, watching TV and folding the laundry.

I It probably comes as no surprise that, generally speaking, we get worse at multitasking as we age. According to Art Kramer at the University of Illinois at Urbana- Champaign, who studies how ageing affects our cognitive abilities, we peak in our 20s. Though the decline is slow through our 30s and on into our 50s, it is there; and after 55, it becomes more precipitous. In one study, he and his colleagues had both young and old participants do a simulated driving task while carrying on a conversation. He found that while young drivers tended to miss background changes, older drivers failed to notice things that were highly relevant. Likewise, older subjects had more trouble paying attention to the more important parts of a scene than young drivers.

J It's not all bad news for over-55s, though. Kramer also found that older people can benefit from practice. Not only did they learn to perform better, brain scans showed that underlying that improvement was a change in the way their brains become active. While it's clear that ractice can often make a difference, especially as we age, the basic facts remain sobering. "We have this impression of an almighty complex brain," says Marois, "and yet we have very humbling and crippling limits." For most of our history, we probably never needed to do more than one thing at a time, he says, and so we haven't evolved to be able to. Perhaps we will in future, though. We might yet look back one day on people like Debbie and Alun as ancestors of a new breed of true multitasker

Questions 28-32

*The reading Passage has ten paragraphs **A-J.***

Which paragraph contains the following information?

*Write the correct letter in boxes **28-32** on your answer sheet.*

28 A theory explained delay happens when selecting one reaction

29 Different age group responds to important things differently

30 Conflicts happened when visual and audio element emerge simultaneously

31 An experiment designed to demonstrates the critical part in brain for multitasking

32 An viewpoint favors optimistic side of multitask performance

Questions 33-35

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

Write your answers in boxes 33-35 on your answer sheet.

33 Which one is correct about experiment conducted by Ren6 Marois?

A participants performed poorly on listening task solely

B volunteers press different key on different color

C participants need use different fingers on different colored object

D they did a better job on Mixed image and sound information

34 Which statement is correct about the first limitation of Marois's experiment?

A "attentional blink" takes about ten seconds

B lag occurs if we concentrate on one object while second one appears

C we always have trouble in reacting the second one

D first limitation can be avoid by certain measures

35 Which one is NOT correct about Meyer's experiments and statements?

A just after failure in several attempts can people execute dual-task

B Practice can overcome dual-task interference

C Meyer holds a different opinion on Marois's theory

D an existing processor decides whether delay another task or not

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

YES *if the statement is true*

NO *if the statement is false*

NOT GIVEN *if the information is not given in the passage*

36 Longer gap between two presenting tasks means shorter delay toward the second one.

37 Incapable in human memory cause people sometimes miss the differences when presented two similar images.

38 Marois has different opinion on the claim that training removes bottleneck effect.

39 Art Kramer proved there is a correlation between multitasking performance and genders

40 The author doesn't believe that effect of practice could bring any variation.

ANSWER KEY FOR IELTS READING ACTUAL TEST

1	NOT GIVEN	**2**	FALSE	**3**	NOT GIVEN
4	TRUE	**5**	Evergreen	**6**	Natural pesticides
7	Power	**8**	Overnight	**9**	Neem cake
10	Doubles	**11**	Nitrogen	**12**	In 2000
13	Neem seeds	14	Water purification		
15	Identical	**16**	Balls of paper	**17**	Count/ Caculate eggs
18	fruits flies	**18**	Mosquitofish	**20**	Surface area
21	sugar water	**22**	TRUE	**23**	FALSE
24	NOT GIVEN	**25**	TRUE	**26**	NOT GIVEN
27	TRUE				

29 I28 F

30 C
31 B

32 G

33 C
34 B

35 A

36 YES
37 YES

38 NO

39 NOT GIVEN
40 NO

TEST 2

SECTION 1

Eco-Resort Management Practices

A Ecotourism is often regarded as a form of nature-based tourism and has become an important alternative source of tourists. In addition to providing the traditional resort-leisure product, it has been argued that ecotourism resort management should have a particular focus on best-practice environmental management, an educational and interpretive component, and direct and indirect contributions to the conservation of the natural and cultural environment (Ayala, 1996).

B Couran Cove Island Resort is a large integrated ecotourism-based resort located south of Brisbane on the Gold Coast, Queensland, and Australia. As the world's population becomes increasingly urbanised, the demand for tourist attractions which are environmentally friendly, serene and offer amenities of a unique nature, has grown rapidly. Couran Cove Resort, which is one such tourist attractions, is located on South Stradbroke Island, occupying approximately 150 hectares of the island. South Stradbroke Island is separated from the mainland by the Broadwater, a stretch of sea 3 kilometers wide More than a century ago, there was only one Stradbroke Island, and there were at least four aboriginal tribes living and hunting on the island. Regrettably, most of the original island dwellers were eventually killed by diseases such as tuberculosis, smallpOx and influenza by the end of the 19th century. The second ship wreak on the island in 1894, and the subsequent destruction of the ship (the Cambus Wallace) because it contained dynamite, caused a large crater in the sandhills on Stradbroke Island. Eventually, the ocean broke through the weakened land form and Stradbroke became two islands. Couran Cove Island Resort is built on one of the world's few naturally-occurring sand lands, which is home to a wide range of plant communities and one of the largest remaining remnants of the rare livistona Rainforest left on the Gold Coast. Many mangrove and rainforest areas and Malaleuca Wetlands on South Stradbroke Island (and in Queensland), have been cleared, drained or filled for residential, industrial, agricultural or urban development in the first half of the 20th century. Farmers and graziers finally abandoned South Stradbroke Island in 1939 because the vegetation and the soil conditions there were not suitable for agricultural activities.

SUSTAINABLE PRACTICES OF COURAN COVE RESORT

Being located on an offshore island, the resort is only accessible by means of water transportation. The resort provides hourly ferry service from the marina on the mainland to and from the island. Within the resort, transport modes include walking trails, bicycle tracks and the beach train. The reception area is the counter of the shop which has not changed in 8 years at least. The accommodation is an octagonal "Bure". These are large rooms that are clean but! The equipment is tired and in some cases just working. Our

ceiling fan only worked on high speed for example. Beds are hard but clean, there is television, radio, an old air conditioner and a small fridge. These "Bures" are right on top of each other and night noises do carry so be careful what you say and do. The only thing is the mosquitos but if you forget to bring mosquito repellant they sell some on the island. As an ecotourism-based resort, most of the planning and development of the attraction has been concentrated on the need to co-exist with the fragile natural environment of South Stradbroke Island to achieve sustainable development.

WATER AND ENERGY MANAGEMENT

C South Stradbroke Island has groundwater at the centre of the island, which has a maximum height of 3 metres above sea level. The water supply is recharged by rainfall and is commonly known as an unconfined freshwater aquifer (StK/1-) . Couran Cove Island Resort obtains its water supply by tapping into this aquifer and extracting it via a bore system. Some of the problems which have threatened the island's freshwater supply include pollution, contamination and over-consumption. In order to minimise some of these problems, all laundry activities are carried out on the mainland. The resort considers washing machines as onerous to the island's freshwater supply, and that the detergents contain a high level of phosphates which are a major source of water pollution. The resort uses LPG-power generation rather than a diesel-powered plant for its energy supply, supplemented by wind turbine, which has reduced greenhouse emissions by 70% of diesel-equivalent generation methods. Excess heat recovered from the generator is used to heat the swimming pool. Hot water in the eco-cabins and for some of the resort's vehicles are solar-powered. Water efficient fittings are also installed in showers and toilets. However, not all the appliances used by the resort are energy efficient, such as refrigerators. Visitors who stay at the resort are encouraged to monitor their water and energy usage via the in-house television systems, and are rewarded with prizes (such as a free return trip to the resort) accordingly if their usage level is low.

CONCLUDING REMARKS

D We examined a case study of good management practice and a pro-active sustainable tourism stance of an eco-resort. In three years of operation, Couran Cove Island Resort has won 23 international and national awards, including the 2001 Australian Tourism Award in the 4-Star Accommodation category. The resort has embraced and has effectively implemented contemporary environmental management practices. It has been argued that the successful implementation of the principles of sustainability should promote long-term social, economic and environmental benefits, while ensuring and enhancing the prospects of continued viability for the tourism enterprise. Couran Cove Island Resort does not conform to the characteristics of the Resort DevelopmentSpectrum, as proposed by Prideaux (2000). According to Prideaux, the resort should be at least at Phase 3 of the model (the National tourism phase), which describes

an integrated resort providing 3-4 star hotel-type accommodation. The primary tourist market in Phase 3 of the model consists mainly of interstate visitors. However, the number of interstate and international tourists visiting the resort is small, with the principal locals and residents from nearby towns and the Gold Coast region. The carrying capacity of Couran Cove does not seem to be of any concern to the Resort management. Given that it is a private commercial ecotourist enterprise, regulating the number of visitors to the resort to minimize damage done to the natural environment on South Stradbroke Island is not a binding constraint. However, the Resort's growth will eventually be constrained by its carrying capacity, and quantity control should be incorporated in the management strategy of the resort.

Question 1 – 4.

Choose the correct letter, A, B, C or D. Write your answers in boxes 1 -4 on your answer sheet.

1 the Stradbroke became two islands

A by an intended destruction of the ship of the Cambus Wallace

B by an explosion of dynamite on a ship and following nature erosion

C by the movement sandhills on Stradbroke Island

D by the volcanic eruption on island

2 Why are laundry activities for the resort carried out on the mainland.

A In order to obtain its water supply via a bore system

B In order to preserve the water and anti-pollution

C In order to save the cost of installing onerous washing machines

D In order to reduce the level of phosphates in water around

3 What is the major water supplier in South Stradbroke Island is by

A desalining the sea water

B collecting the rainfall

C transporting from the mainland

D boring ground water

4 What is applied for heating water on Couran Cove Island Resort

A the LPG-power

B a diesel-powered plant

C the wind power

D the solar-power

5 what does, as the managers of resorts believe, the prospective future focus on

A more awards of for resort's accommodation

B sustainable administration and development in a long run

C Economic and environmental benefits for the tourism enterprise

D successful implementation the Resort Development Spectrum

Questions 6-10

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 6-10 on your answer sheet.

Being located away form the mainland, tourists can attain the resort only by 6..... in a regular service. Within the resort, transports include trails for walking or tracks for both 7..... and the beach train. The on-island equipment is old-fashioned which is barely working such as the 8..... overhead. There is television, radio, an old 9..... and a small fridge. And you can buy the repellant for 10..... if you forget to bring some.

Questions 11-13

Choose three correct letters among A-E

Write your answers in boxes 11-13 on your answer sheet.

What is true as to the contemporary situation of Couran Cove Island Resort in the last paragraph?

A Couran Cove Island Resort goes for more eco-friendly practices

B the accommodation standard only conforms to the Resort Development Spectrum of Phase 3

C Couran Cove Island Resort should raise the accommodation build more standard and build more facilities

D the principal group visiting the resort is international tourists

E its carrying capacity will restrict the future business' expansion

SECTION 2

You should spend about 20 minutes on question 14-26, which are based on reading passage 2 on the following pages.

TV Addiction 1

A The amount of time people spend watching television is astonishing. On average, individuals in the industrialized world devote three hours a day to the pursuit —fully half

of their leisure time, and more than on any single activity save work and sleep. At this rate, someone who lives to 75 would spend nine years in front of the tube. To some commentators, this devotion means simply that people enjoy TV and make a conscious decision to watch it. But if that is the whole story, why do so many people experience misgivings about how much they view? In Gallup polls in 1992 and 1999, two out of five adult respondents and seven out of 10 teenagers said they spent too much time watching TV. Other surveys have consistently shown that roughly 10 percent of adults call themselves TV addicts

B To study people's reactions to TV, researchers have experiments in which they have monitored the brain waves (using an electroencephalograph, or EEG) to track behavior and emotion in the normal course of life, as opposed to the artificial conditions of the lab. Participants carried a beeper, and we signaled them six to eight times a day, at random, over the period of a week; whenever they heard the beep, they wrote down what they were doing and how they were feeling using a standardized scorecard.

C As one might expect, people who were watching TV when we beeped them reported feeling relaxed and passive. The EEG studies similarly show less mental stimulation, as measured by alpha brain-wave production, during viewing than during reading. What is more surprising is that the sense of relaxation ends when the set is turned off, but the feelings of passivity and lowered alertness continue. Survey participants say they have more difficulty concentrating after viewing than before. In contrast, they rarely indicate such difficulty after reading. After playing sports or engaging in hobbies, people report improvements in mood. After watching TV, people's moods are about the same or worse than before. That may be because viewers' vague learned sense that they will feel less relaxed if they stop viewing. So they tend not to turn the set off. Viewing begets more viewing which is the same as the experience of habit-forming drugs. Thus, the irony of TV: people watch a great deal longer than they plan to, even though prolonged viewing is less rewarding. In our ESM studies the longer people sat in front of the set, the less satisfaction they said they derived from it. For some, a twinge of unease or guilt that they aren't doing something more productive may also accompany and depreciate the enjoyment of prolonged viewing. Researchers in Japan, the U.K. and the U.S. have found that this guilt occurs much more among middle-class viewers than among less affluent ones.

D What is it about TV that has such a hold on us? In part, the attraction seems to spring from our biological 'orienting response/ First described by Ivan Pavlov in 1927, the orienting response is our instinctive visual or auditory reaction to any sudden or novel stimulus. It is part of our evolutionary heritage, a built-in sensitivity to movement and potential predatory threats. In 1986 Byron Reeves of Stanford University, Esther Thorson of the University of Missouri and their colleagues began to study whether the simple formal features of television—cuts, edits, zooms, pans, sudden noises — activate the orienting response, thereby keeping attention on the screen. By watching how brain

waves were affected by formal features, the researchers concluded that these stylistic tricks can indeed trigger involuntary responses and 'derive their attentional value through the evolutionary significance of detecting movement.... It is the form, not the content, of television that is unique.

E The natural attraction to television's sound and light starts very early in life. Dafna Lemish of Tel Aviv University has described babies at six to eight weeks attending to television. We have observed slightly older infants who, when lying on their backs on the floor, crane their necks around 180 degrees to catch what light through yonder window breaks. This inclination suggests how deeply rooted the orienting response is.

F The Experience Sampling Method permitted us to look closely at most every domain of everyday life: working, eating, reading, talking to friends, playing a sport, and so on. We found that heavy viewers report feeling significantly more anxious and less happy than light viewers do in unstructured situations, such as doing nothing, daydreaming or waiting in line. The difference widens when the viewer is alone. Subsequently, Robert D. Mcllwraith of the University of Manitoba extensively studied those who called themselves TV addicts on surveys. On a measure called the Short Imaginal Processes Inventory (SIPI), he found that the self-described addicts are more easily bored and distracted and have poorer attentional control than the non-addicts. The addicts said they used TV to distract themselves from unpleasant thoughts and to fill time. Other studies over the years have shown that heavy viewers are less likely to participate in community activities and sports and are more likely to be obese than moderate viewers or non-viewers.

G More than 25 years ago psychologist Tannis M. MacBeth Williams of the University of British Columbia studied a mountain community that had no television until cable finally arrived. Over time, both adults and children in the town became less creative in problem solving, less able to persevere at tasks, and less tolerant of unstructured time.

H Nearly 40 years ago Gary A. Steiner of the University of Chicago collected fascinating individual accounts of families whose set had broken. In experiments, families have volunteered or been paid to stop viewing, typically for a week or a month. Some fought, verbally and physically. In a review of these cold-turkey studies, Charles Winick of the City University of New York concluded: 'The first three or four days for most persons were the worst, even in many homes where viewing was minimal and where there were other ongoing activities. In over half of all the households, during these first few days of loss, the regular routines were disrupted, family members had difficulties in dealing with the newly available time, anxiety and aggressions were expressed By the second week, a move toward adaptation to the situation was common.' Unfortunately, researchers have yet to flesh out these anecdotes; no one has systematically gathered statistics on the prevalence of these withdrawal symptoms.

I Even though TV does seem to meet the criteria for substance dependence, not all researchers would go so far as to call TV addictive. Mcllwraith said in 1998 that 'displacement of other activities by television may be socially significant but still fall short of the clinical requirement of significant impairment.' He argued that a new category of 'TV addiction' may not be necessary if heavy viewing stems from conditions such as depression and social phobia. Nevertheless, whether or not we formally diagnose someone as TV-dependent, millions of people sense that they cannot readily control the amount of television they watch.

Questions 14-18

Do the following statements agree with the claims of the writer in Reading Passage? In boxes 14-18 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*

14 Study shows that males are more likely to be addicted to TV than females.

15 Greater improvements in mood are experienced after watching TV than playing sports.

16 TV addiction works in similar ways as drugs.

17 It is reported that people's satisfaction is in proportion to the time they spend watching TV.

18 Middle-class viewers are more likely to feel guilty about watching TV than the poor.

Questions 19-23
Look at the following researchers (Questions 19-23) and the list of statements below.
Match each researcher with the correct statements.
Write the correct letter A-H in boxes 19-23 on your answer sheets.

19 Byron Reeves and Esther Thorson

20 Dafna Lemish

21 Robert D. Mcllwraith

22 Tannis M. MacBeth Williams

23 Charles Winick

List of Statements

A Audiences would get hypnotized from viewing too much television.

B People have been sensitive to the TV signals since a younger age.

C People are less likely to accomplish their work with television.

D A handful of studies have attempted to study other types of media addiction.

E The addictive power of television could probably minimize the problems.

F Various media formal characters stimulate people's reaction on the screen.

G People who believe themselves to be TV addicts are less likely to join in the group activities.

H It is hard for people to accept the life without TV at the beginning.

Questions 24-26

Choose the correct letter, A, B, C or D. Write the correct letter in boxes 24-26 on your answer sheet.

24 People in the industrialized world

A devote ten hours watching TV on average.

B spend more time on TV than other entertainment.

C call themselves TV addicts.

D working best.

25 When compared with light viewers, heavy viewers

A like playing sport more than reading.

B feel relaxed after watching TV.

C spend more time in daydreaming.

D are more easily bored while waiting in line.

26 Which of the following statements is true about the family experiment?

A Not all the subjects participate in the experiment for free.

B There has been a complete gathered data.

C People are prevented from other activities during the experiment.

D People cannot adapt to the situation until the end

SECTION 3

Music: Language We All Speak

Section A: Music is one of the human specie's relatively few universal abilities. Without formal training, any individual, from Stone Age tribesman to suburban teenager has the ability to recognize music and, in some fashion, to make it. Why this should be so is a mystery. After all, music isn't necessary for getting through the day, and if it aids in reproduction, it does so only in highly indirect ways. Language, by contrast, is also everywhere- but for reasons that are more obvious. With language, you and the members of your tribe can organize a migration across Africa, build reed boats and cross the seas,

and communicate at night even when you can't see each other. Modem culture, in all its technological extravagance, springs directly from the human talent for manipulating symbols and syntax. Scientists have always been intrigued by the connection between music and language. Yet over the years, words and melody have acquired a vastly different status in the lab and the seminar room. While language has long been considered essential to unlocking the mechanisms of human intelligence, music is generally treated as an evolutionary frippery-mere "auditory cheesecake," as the Harvard cognitive scientist Steven Pinker puts it.

Section B: But thanks to a decade-long wave of neuroscience research, that tune is changing. A flurry of recent publications suggests that language and music may equally be able to tell us who we are and where we're from – not just emotionally, but biologically. In July, the journal Nature Neuroscience devoted a special issue to the topic. And in an article in the August 6 issue of the Journal of Neuroscience, David Schwartz, Catherine Howe, and Dale Purves of Duke University argued that the sounds of music and the sounds of language are intricately connected. To grasp the originality of this idea, it's necessary to realize two things about how music has traditionally been understood. First, musicologists have long emphasized that while each culture stamps a special identity onto its music; music itself has some universal qualities. For example, in virtually all cultures sound is divided into some or all of the 12 intervals that make up the chromatic scale – that is, the scale represented by the keys on a piano. For centuries, observers have attributed this preference for certain combinations of tones to the mathematical properties of sound itself. Some 2,500 years ago, Pythagoras was the first to note a direct relationship between the harmoniousness of a tone combination and the physical dimensions of the object that produced it. For example, a plucked string will always play an octave lower than a similar string half its size, and a fifth lower than a similar string two-thirds its length. This link between simple ratios and harmony has influenced music theory ever since.

Section C: This music-is-moth idea is often accompanied by the notion that music formally speaking at least, exists apart from the world in which it was created. Writing recently in The New York Review of Books, pianist and critic Charles Rosen discussed the long-standing notion that while painting and sculpture reproduce at least some aspects of the natural world, and writing describes thoughts and feelings we are all familiar with, music is entirely abstracted from the world in which we live. Neither idea is right, according to David Schwartz and his colleagues. Human musical preferences are fundamentally shaped not by elegant algorithms or ratios but by the messy sounds of real life, and of speech in particular -which in turn is shaped by our evolutionary heritage." The explanation of music, like the explanation of any product of the mind, must be rooted in biology, not in numbers per se," says Schwartz.

Schwartz, Howe, and Purves analyzed a vast selection of speech sounds from a variety of languages to reveal the underlying patterns common to all utterances. In order to focus

only on the raw sound, they discarded all theories about speech and meaning and sliced sentences into random bites. Using a database of over 100,000 brief segments of speech, they noted which frequency had the greatest emphasis in each sound. The resulting set of frequencies, they discovered, corresponded closely to the chromatic scale. In short, the building blocks of music are to be found in speech

Far from being abstract, music presents a strange analog to the patterns created by the sounds of speech. "Music, like the visual arts, is rooted in our experience of the natural world," says Schwartz. "It emulates our sound environment in the way that visual arts emulate the visual environment. " In music we hear the echo of our basic sound-making instrument- the vocal tract. The explanation for human music is simple; still than Pythagoras's mathematical equations. We like the sounds that are familiar to us- specifically, we like sounds that remind us of us.

This brings up some chicken-or-egg evolutionary questions. It may be that music imitates speech directly, the researchers say, in which case it would seem that language evolved first. It's also conceivable that music came first and language is in effect an Imitation of song – that in everyday speech we hit the musical notes we especially like. Alternately, it may be that music imitates the general products of the human sound-making system, which just happens to be mostly speech. "We can't know this," says Schwartz. "What we do know is that they both come from the same system, and it is this that shapes our preferences."

Section D: Schwartz's study also casts light on the long-running question of whether animals understand or appreciate music. Despite the apparent abundance of "music" in the natural world- birdsong, whalesong, wolf howls, synchronized chimpanzee hooting previous studies have found that many laboratory animals don't show a great affinity for the human variety of music making. Marc Hauser and Josh McDermott of Harvard argued in the July issue of Nature Neuroscience that animals don't create or perceive music the way we do. The act that laboratory monkeys can show recognition of human tunes is evidence, they say, of shared general features of the auditory system, not any specific chimpanzee musical ability. As for birds, those most musical beasts, they generally recognize their own tunes – a narrow repertoire – but don't generate novel melodies like we do. There are no avian Mozarts.

But what's been played to the animals, Schwartz notes, is human music. If animals evolve preferences for sound as we do – based upon the soundscape in which they live – then their "music" would be fundamentally different from ours. In the same way our scales derive from human utterances, a cat's idea of a good tune would derive from yowls and meows. To demonstrate that animals don't appreciate sounds the way we do, we'd need evidence that they don't respond to "music" constructed from their own sound environment.

Section E: No matter how the connection between language and music is parsed, what is apparent is that our sense of music, even our love for it, is as deeply rooted in our biology and in our brains as language is. This is most obvious with babies, says Sandra Trehub at the University of Toronto, who also published a paper in the Nature Neuroscience special issue.

For babies, music and speech are on a continuum. Mothers use musical speech to "regulate infants' emotional states." Trehub says. Regardless of what language they speak, the voice all mothers use with babies is the same: "something between speech and song." This kind of communication "puts the baby in a trance-like state, which may proceed to sleep or extended periods of rapture." So if the babies of the world could understand the latest research on language and music, they probably wouldn't be very surprised. The upshot, says Trehub, is that music may be even more of a necessity than we realize.

Question 27 – 31

Reading Passage 3 has five sections A-E.

Choose the correct heading for each section from the list of headings below.

Write the correct number i-viii in boxes 27-31 on your answer sheet.

List of Headings

i. Animal sometimes make music.
ii. Recent research on music
iii. Culture embedded in music
iv. Historical theories review
v. Communication in music with animals
vi. Contrast between music and language
vii. Questions on a biological link with human and music
viii. Music is good for babies.

27 Section A

28 Section B

29 Section C

30 Section D

31 Section E

Questions 32-38

Look at the following people and list of statements below.

Match each person with the correct statement.

Write the correct letter A-G in boxes 32-38 on your answer sheet.

List of statements

A Music exists outside of the world in which it is created

B Music has a common feature though cultural influences affect

C Humans need music

D Music priority connects to the disordered sound around

E Discovery of mathematical musical foundation

F Music is not treat equally well compared with language

G Humans and monkeys have similar traits in perceiving sound

32 Steven Pinker

33 Musicologists

34 Greek philosopher Pythagoras

35 Schwartz, Howe, and Purves

36 Marc Hauser and Josh McDermott

37 Charles Rosen

38 Sandra Trehub

Questions 39-40

Choose the correct letter A, B, C or D

Write your answers in boxes 39-40 on your answer sheet.

39 Why was the study of animal's music uncertain?

A Animals don't have the same auditory system as humans.

B Experiments on animal's music are limited.

C tunes are impossible for animal to make up.

D Animals don't have spontaneous ability for the tests.

40 What is the main subject of this passage?

A Language and psychology.

B Music formation.

C Role of music in human society.

D Music experiments for animals.

IELTS Reading Recent Actual Test 2 – Answer Key

Section 1

1	B	**2**	B	**3**	**D**
4	D	**5**	B	**6**	ferry
7	Bicyle	**8**	Fan/ceiling fan	**9**	Air conditioner
10	Mosquitos/ mosquito	**11**	A	**12**	C
13	E				

Section 2

14	NOT GIVEN	**15**	FALSE	**16**	TRUE
17	FALSE	**18**	FALSE	**19**	F
20	B	**21**	G	**22**	C
23	H	**24**	B	**25**	D
26	A				

Section 3

27	Vi	**28**	iv	**29**	ii
30	V	**31**	vii	**32**	F
33	**B**	**34**	E	**35**	**D**
36	G	**37**	A	**38**	C
39	**B**	**40**	C		

TEST 3

Section 1

Bamboo, A Wonder Plant

The wonder plant with an uncertain future: more than a billion people rely on bamboo for either their shelter or income, while many endangered species depend on it for their survival. Despite its apparent abundance, a new report says that species of bamboo may be under serious threat.

Section A

Every year, during the rainy season, the mountain gorillas of Central Africa migrates to the foothills and lower slopes of the Virunga Mountains to graze on bamboo. For the 650 or so that remain in the wild, it's a vital food source. Although they at almost 150 types of plant, as well as various insects and other invertebrates, at this time of year bamboo accounts for up to 90 per cent of their diet. Without it, says Ian Redmond, chairman of the Ape Alliance, their chances of survival would be reduced significantly. Gorillas aren't the only locals keen on bamboo. For the people who live close to the Virungas, it's a valuable and versatile raw material used for building houses and making household items such as mats and baskets. But in the past 100 years or so, resources have come under increasing pressure as populations have exploded and large areas of bamboo forest have been cleared to make way for farms and commercial plantations.

Section B

Sadly, this isn't an isolated story. All over the world, the ranges of many bamboo species appear to be shrinking, endangering the people and animals (that depend upon them. But despite bamboo's importance, we know surprisingly little about it. A recent report published by the UN Environment Programme (UNEP) and the Inter-national Network for Bamboo and Rattan (INBAR) has revealed just how profound is our ignorance of global bamboo resources, particularly in relation to conservation. There are almost 1,600 recognised species of bamboo, but the report concentrated on the 1,200 or so woody varieties distinguished by the strong stems, or culms, that most people associate with this versatile plant. Of these, only 38 'priority species' identified for their commercial value have been the subject of any real scientific research, and this has focused mostly on matters relating to their viability as a commodity. This problem isn't confined to bamboo. Compared to the work carried out on animals, the science of assessing the conservation status of plants is still in its infancy. "People have only started looking hard at this during the past 10-15 years, and only now are they getting a handle on how to go about it systematically," says Dr. Valerie Kapos, one of the report's authors and a senior advisler in forest ecology and conservation to the UNEP

Section C

Bamboo is a type of grass. It comes in a wide variety of forms, ranging in height from 30 centimetres to more than 40 metres. It is also the world's fastest-growing woody plant; some species can grow more than a metre in a day. Bamboo's ecological rote extends beyond providing food and habitat for animals. Bamboo tends to grow in stands made up of groups of individual plants that grow from root systems known as rhizomes. Its extensive rhizome systems, which tie in predicting the top layers of the soil, are crucial in preventing soil erosion. And there is growing evidence that bamboo plays an important part in determining forest structure and dynamics. "Bamboo's pattern of mass flowering and mass death leaves behind large areas of dry biomass that attract wildfire," says Kapos. "When these bum, they create patches of open ground within the forest far bigger than would be left by a fallen tree." Patchiness helps to preserve diversity because certain plant species do better during the early stages of regeneration when there are gaps in the canopy.

Section D

However, bamboo's most immediate significance lies in its economic value. Modem processing techniques mean that it can be used in a variety of ways, for example, as flooring and laminates. One of the fastest growing bamboo products is paper -25 per cent of paper produced in India is made from bamboo fiber and in Brazil, 100,000 hectares of bamboo are grown for its production. Of course, bamboo's main function has always been in domestic applications, and as a locally traded commodity it's worth about US$4.5billion annually. Because of its versatility, flexibility and strength (its tensile strength compares to that of some steel), it has traditionally been used in construction. Today, more than one billion people worldwide live in bamboo houses. Bamboo is often the only readily available raw material for people in many developing countries, says Chris Staple-ton, a research associate at the Royal Botanic Gardens. "Bamboo can be harvested from forest areas or grown quickly elsewhere, and then converted simply without expensive machinery or facilities," he says. "In this way, it contributes substantially to poverty alleviation and wealth creation."

Section E

Given bamboo's value in economic and ecological terms, the picture painted by the UNEP report is all the more worrying. But keen horticulturists will spot an apparent contradiction here. Those who've followed the recent vogue for cultivating exotic species in their gardens will point out that if it isn't kept in check, bamboo can cause real problems. "In a lot of places, the people who live with bamboo don't perceive it as being endangered in any way," says Kapos. "In fact, a lot of bamboo species are actually very invasive if they've been introduced." So why are so many species endangered? There are two separate issues here, says Ray Townsend, vice president of the British Bamboo Society and arboretum manager at the Royal Botanic Gardens. "Some plants are threatened because they can't survive in the habitat – they aren't strong enough or there aren't enough of them, perhaps. But bamboo can take care of itself – it is strong enough

to survive if left alone. What is under threat is its habitat." It is the physical disturbance that is the threat to bamboo, says Kapos. "When forest goes, it is converted into something else: there isn't any-where for forest plants such as bamboo to grow if you create a cattle pasture."

Section F

Around the world, bamboo species are routinely protected as part of forest eco-systems in national parks and reserves, but there is next to nothing that protects bamboo in the wild for its own sake. However, some small steps are being taken to address this situation. The UNEP-INBAR report will help conservationists to establish effective measures aimed at protecting valuable wild bamboo species. Towns end, too, sees the UNEP report as an important step forward in promoting the cause of bamboo conservation. "Until now, bamboo has been perceived as a second-class plant.
When you talk about places such as the Amazon, everyone always thinks about the hardwoods. Of course these are significant, but there is a tendency to overlook the plants they are associated with, which are often bamboo species. In many ways, it is the most important plant known to man. I can't think of another plant that is used so much and is so commercially important in so many countries." He believes that the most important first step is to get scientists into the field. "We need to go out there, look at these plants and see how they survive and then use that information to conserve them for the future.

Questions 1-7

Reading Passage 1 has six sections A-F.

Which section contains the following information?

Write the correct letter A-F in boxes 1-7 on your answer sheet

NB You may use any letter more than once

1. Limited extent of existing research
2. Comparison of bamboo with other plant species
3. Commercial application of bamboo
4. Example of an animal which rely on bamboos for survival
5. Human activity that damaged large areas of bamboo
6. The approaches used to study bamboo
7. Bamboo helps the survival of a range of plants

Questions 8-11

Use the information in the passage to match the people (listed A-D) with opinions or deeds below. Write the appropriate letters A-d in boxes 8-11 on your answer sheet.

NB you may use any letter more than once

A Ian Redmond

B Valerie Kapos

C Ray Townsend

D Chris Stapleton

8. Destroying bamboo jeopardizes to wildlife.

9. People have very confined knowledge of bamboo.

10. Some people do not think that bamboo is endangered.

11. Bamboo has loads of commercial potentials.

Questions 12-13

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

Write your answers in boxes 12-13 on your answer sheet

12. What problem does the bamboo's root system prevent?

13. Which bamboo product is experiencing market expansion

SECTION 2

Biodiversity

A It seems biodiversity has become a buzzword beloved of politicians, conservationists, protesters and scientists alike. But what exactly is it? The Convention on Biological Diversity, an international agreement to conserve and share the planet's biological riches, provides a good working definition: biodiversity comprises every form of life, from the smallest microbe to the largest animal or plant, the genes that give them their specific characteristics and the ecosystems of which they are a part.

B In October, the World Conservation Union (also known as the IUCN) published its updated Red List of Threatened Species, a roll call of 11,167 creatures facing extinction – 121 more than when the list was last published in 2000. But the new figures almost certainly underestimate the crisis. Some 1.2 million species of animal and 270,000 species of plant have been classified, but the well-being of only a fraction has been assessed. The resources are simply not available. The RJCN reports that 5714 plants are threatened, for example, but admits that only 4 per cent of known plants have been assessed. And, of course, there are thousands of species that we have yet to discover. Many of these could also be facing extinction.

C It is important to develop a picture of the diversity of life on Earth now, so that comparisons can be made in the future and trends identified. But it isn't necessary to observe every single type of organism in an area to get a snapshot of the health of the ecosystem. In many habitats there are species that are particularly susceptible to shifting conditions, and these can be used as indicator species

D In the media, it is usually large, charismatic animals such as pandas, elephants, tigers and whales that get all the attention when loss of biodiversity is discussed. However, animals or plants far lower down the food chain are often the ones vital for preserving habitats – in the process saving the skins of those more glamorous species. These are known as keystone species.

E By studying the complex feeding relationships within habitats, species can be identified that have a particularly important impact on the environment. For example, the members of the fig family are the staple food for hundreds of different species in many different countries, so important that scientists sometimes call figs "jungle burgers". A whole range of animals, from tiny insects to birds and large mammals, feed on everything from the tree's bark and leaves to its flowers and fruits. Many fig species have very specific pollinators. There are several dozen species of fig tree in Costa Rica, and a different type of wasp has evolved to pollinate each one. Chris Lyle of the Natural History Museum in London – who is also involved in the Global Taxonomy Initiative of the Convention on Biological Diversity – points out that if fig trees are affected by global warming, pollution, disease or any other catastrophe, the loss of biodiversity will be enormous.

F Similarly, sea otters play a major role in the survival of giant kelp forests along the coasts of California and Alaska. These "marine rainforests" provide a home for a wide range of other species. The kelp itself is the main food of purple and red sea urchins and in turn the urchins are eaten by predators, particularly sea otters. They detach an urchin from the seabed then float to the surface and lie on their backs with the urchin shell on their tummy, smashing it open with a stone before eating the contents. Urchins that are not eaten tend to spend their time in rock crevices to avoid the predators. This allows the kelp to grow – and it can grow many centimetres in a day. As the forests form, bits of kelp break off and fall to the bottom to provide food for the urchins in their crevices. The sea otters thrive hunting for sea urchins in the kelp, and many other fish and

invertebrates live among the fronds. The problems start when the sea otter population declines. As large predators they are vulnerable – their numbers are relatively small so disease or human hunters can wipe them out. The result is that the sea urchin population grows unchecked and they roam the sea floor eating young kelp fronds. This tends to keep the kelp very short and stops forests developing, which has a huge impact on biodiversity.

G Conversely, keystone species can also make dangerous alien species: they can wreak havoc if they end up in the wrong ecosystem. The cactus moth, whose caterpillar is a voracious eater of prickly pear was introduced to Australia to control the rampant cacti. It was so successful that someone thought it would be a good idea to introduce it to Caribbean islands that had the same problem. It solved the cactus menace, but unfortunately some of the moths have now reached the US mainland – borne on winds and in tourists' luggage – where they are devastating the native cactus populations of Florida.

H Organisations like the Convention on Biological Diversity work with groups such as the UN and with governments and scientists to raise awareness and fund research. A number of major international meetings – including the World Summit on Sustainable Development in Johannesburg this year – have set targets for governments around the world to slow the loss of biodiversity. And the CITES meeting in Santiago last month added several more names to its list of endangered species for which trade is controlled. Of course, these agreements will prove of limited value if some countries refuse to implement them.

I There is cause for optimism, however. There seems to be a growing understanding of the need for sustainable agriculture and sustainable tourism to conserve biodiversity. Problems such as illegal logging are being tackled through sustainable forestry programmes, with the emphasis on minimising the use of rainforest hardwoods in the developed world and on rigorous replanting of whatever trees are harvested. CITES is playing its part by controlling trade in wood from endangered tree species. In the same way, sustainable farming techniques that minimise environmental damage and avoid monoculture

J Action at a national level often means investing in public education and awareness. Getting people like you and me involved can be very effective. Australia and many European countries are becoming increasingly efficient at recycling much of their domestic waste, for example, preserving natural resources and reducing the use of fossil fuels. This in turn has a direct effect on biodiversity by minimising pollution, and an indirect effect by reducing the amount of greenhouse gases emitted from incinerators and landfill sites. Preserving ecosystems intact for future generations to enjoy is obviously important, but biodiversity is not some kind of optional extra. Variety may be "the spice of life", but biological variety is also our life-support system.

Questions 14-20

Do the following statements agree with the information given in Reading Passage 2 In boxes 14-20 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*

14 The term "biodiversity" consists of living creatures and environment that they live in.

15 There are species that have not been researched because it's unnecessary to study all creatures.

16 It is not necessary to investigate all creatures in a certain place.

17 The press more often than not focuses on animals well-known.

18 There is a successful case that cactus moth plays a positive role in the US.

19 Usage of hardwoods is forbidden in some European countries.

20 Agriculture experts advise farmers to plant single crops in the field in terms of sustainable farming

Questions 21-26

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 21-26 on your answer sheet.

Because of the ignorance brought by media, people tend to neglect significant creatures called **21** ..... .Every creature has diet connections with others, such as **22** ..... which provide a majority of foods for other species. In some states of America, decline in number of sea otters leads to the boom of **23** ..... An impressing case is that imported **24** .....successfully tackles the plant cacti in **25**

..... However, the operation is needed for the government to increase their financial support in **26** ..... .

SECTION 3

Sunset for the Oil Business

The world is about to run out of oil. Or perhaps not. It depends whom you believe...

A Members of the Department Analysis Centre (ODAC) recently met in London and presented technical data that support their grim forecast that the world is perilously close to running out of oil. Leading lights of this moment, including the geologists Colin Campbell, rejected rival views presented by American geological survey and the international energy agency that contradicted their findings. Dr. Campbell even decried the amazing display of ignorance, denial and obfuscation by government, industry and academics on this topic.

B So is the oil really running out? The answer is easy: Yes. Nobody seriously disputes the notion that oil is, for all practical purposes, a non-renewable resource that will run out some day, be that years or decades away. The harder question is determining when precisely oil will begin to get scarce. And answering that question involves scaling Hubbert's peak.

C M. King Hubbert, a Shell geologist of legendary status among depletion experts, forecast in 1956 that oil production in the United States would peak in the early 1970s and then slowly decline, in something resembling a bell-shaped curve. At the time, his forecast was controversial, and many rubbished it. After 1970, however, empirical evidence proved him correct: oil production in America did indeed peak and has been in decline ever since.

D Dr Hubbert's analysis drew on the observation that oil production in a new area typically rises quickly at first, as the easiest and cheapest reserves are tapped. Over time, reservoirs age and go into decline, and so lifting oil becomes more expensive. Oil from that area then becomes less competitive in relation to other fuels, or to oil from other areas. As a result, production slows down and usually tapers off and declines. That, he argued, made for a bell-shaped curve.

E His successful prediction has emboldened a new generation of geologists to apply his methodology on a global scale. Chief among them are the experts at ODAC, who worry that the global peak in production will come in the next decade. Dr Campbell used to argue that the peak should have come already; he now thinks it is just round the comer. A heavyweight has now joined this gloomy chorus. Kenneth Deffeyes of Princeton

University argues in a lively new book ("The View from Hubbert's Peak") that global oil production could peak as soon as 2004.

F That sharply contradicts mainstream thinking. America's Geological Survey prepared an exhaustive study of oil depletion last year (in part to rebut Dr Campbell's arguments) that put the peak of production some decades off. The IEA has just weighed in with its new "World Energy Outlook", which foresees enough oil to comfortably meet demand to 2020 from remaining reserves. Rene Dahan, one of ExxonMobil's top managers, goes further: with an assurance characteristic of the world's largest energy company, he insists that the world will be awash in oil for another 70 years.

G Who is right? In making sense of these wildly opposing views, it is useful to look back at the pitiful history of oil forecasting. Doomsters have been predicting dry wells since the 1970s, but so far the oil is still gushing. Nearly all the predictions for 2000 made after the 1970s oil shocks were far too pessimistic. America's Department of Energy thought that oil would reach $150 a barrel (at 2000 prices); even Exxon predicted a price of $ 100.

H Michael Lynch of DRI-WEFA, an economic consultancy, is one of the few oil forecasters who has got things generally right. In a new paper, Dr Lynch analyses those historical forecasts. He finds evidence of both bias and recurring errors, which suggests that methodological mistakes (rather than just poor data) were the problem. In particular, he faults forecasters who used Hubbert-style analysis for relying on fixed estimates of how much "ultimately recoverable" oil there really is below ground, in the industry's jargon: that figure, he insists, is actually a dynamic one, as improvements in infrastructure, knowledge and technology raise the amount of oil which is recoverable.

I That points to what will probably determine whether the pessimists or the optimists are right: technological innovation. The first camp tends to be dismissive of claims of forthcoming technological revolutions in such areas as deep-water drilling and enhanced recovery. Dr Deffeyes captures this end-of-technology mindset well. He argues that because the industry has already spent billions on technology development, it makes it difficult to ask today for new technology, as most of the wheels have already been invented.

J Yet techno-optimists argue that the technological revolution in oil has only just begun. Average recovery rates (how much of the known oil in a reservoir can actually be brought to the surface) are still only around 30-35%. Industry optimists believe that new techniques on the drawing board today could lift that figure to 50-60% within a decade.

K Given the industry's astonishing track record of innovation, it may be foolish to bet against it. That is the result of adversity: the nationalisations of the 1970s forced Big Oil to develop reserves in expensive, inaccessible places such as the North Sea and Alaska, undermining Dr Hubbert's assumption that cheap reserves are developed first. The resulting upstream investments have driven down the cost of finding and developing

wells over the last two decades from over $20 a barrel to around $6 a barrel. The cost of producing oil has fallen by half, to under $4 a barrel.

L Such miracles will not come cheap, however, since much of the world's oil is now produced in ageing fields that are rapidly declining. The IEA concludes that global oil production need not peak in the next two decades if the necessary investments are made. So how much is necessary? If oil companies are to replace the output lost at those ageing fields and meet the world's ever-rising demand for oil, the agency reckons they must invest $ 1 trillion in non-OPEC countries over the next decade alone. That's quite a figure.

Questions 27-31

Do the following statements agree with the claims of the writer in Reading Passage 3 In boxes 27-31 on your answer sheet, write

YES if the statement agrees with the information

NO if the statement contradicts the information

NOT GIVEN if there is no information on this

27 Hubbert has a high-profile reputation amongst ODAC members.

28 Oil is likely to last longer than some other energy sources.

29 The majority of geologists believe that oil will start to run out some time this decade.

30 Over 50 percent of the oil we know about is currently being recovered.

31 History has shown that some of Hubbet's principles were mistaken.

Question 32-35

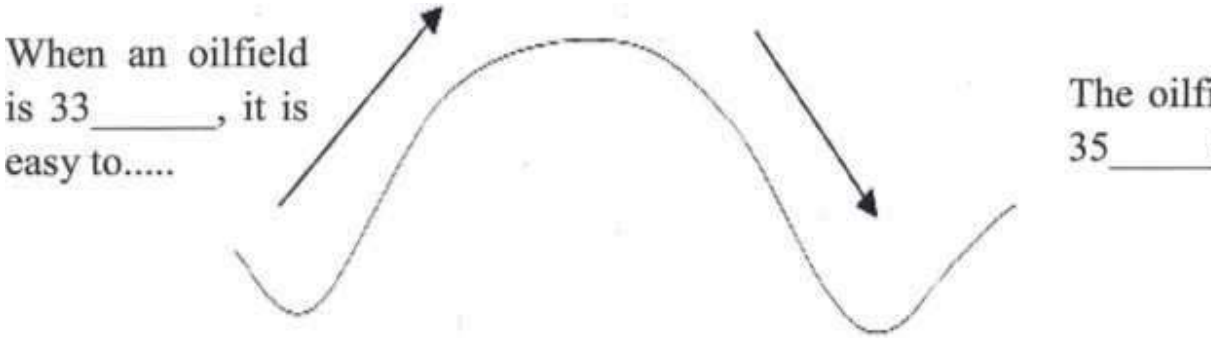
Complete the notes below

Choose ONE WORD ONLY from the passage for each answer. Write your answers in boxes 32-35 on your answer sheet.

Many people believed Hubbert's theory was **32**..... when it was originall presented.

The recovery of the oil gets more **34** .....as the reservoir gets older

When an aild field is **33**..... , it is easy to..... .



The oil field can't be as **35**..... as other area

Questions 36-40

Look at the following statements (questions 36-40) and the list ofpeople below. Match each statement with correct person, A-E.

Write the correct letter, A-E in boxes 36-40 on your answer sheet.

NB You may use any letter more than once.

36 has found fault in geological research procedure

37 has provided the longest-range forecast regarding oil supply

38 has convinced others that oil production will follow a particular model

39 has accused fellow scientists of refusing to see the truth

40 has expressed doubt over whether improved methods of extracting oil are possible.

List of People

A Colin Campbell

B M. King Hubbert

C Kenneth Deffeyes

D Rene Dahan

E Michael Lynch

IELTS Reading Recent Actual Test 3 – Answer Key

Section 1

1	B	**2**	E	**3**	**D**
4	D	**5**	A	**6**	B
7	C	**8**	A	**9**	B
10	B	**11**	D	**12**	Soil erosion
13	Paper				

Section 2

14	TRUE	**15**	FALSE	**16**	TRUE
17	TRUE	**18**	FALSE	**19**	NOT GIVEN
20	NOT GIVEN	**21**	Keystone	**22**	Fig family/ figs
23	Sea urchins(urchins)	**24**	Cactus moth	**25**	Australia
26	Public education				

Section 3

27	YES	28	NOT GIVEN	29	NO
30	NO	31	YES	32	controversial
33	Tapped/(new)	34	Expensive	35	Competitive
36	E	37	D	38	B
39	A	40	C		

TEST 4

SECTION 1

Organic farming and chemical fertilisers

A The world's population continues to climb. And despite the rise of high-tech agriculture, 800 millionpeople don't get enough to eat. Clearly it's time to rethink the food we eat and where it comes from. Feeding 9 billion people will take more than the same old farming practices, especially if we want to do it without felling rainforests and planting every last scrap of prairie. Finding food for all those people will tax predicting farmers'—and researchers'—ingenuity to the limit. Yet already, precious aquifers that provide irrigation water for some of the world's most productive farmlands are drying up or filling with seawater, and arable land in China is eroding to create vast dust storms that redden sunsets as far away as North America. "Agriculture must become the solution to environmental problems in 50 years. If we don't have systems that make the environment better~not just hold the fort-then we're in trouble," says Kenneth Cassman, an agronomist at the University of Nebraska at Lincoln. That view was echoed in January by the Curry report, a government panel that surveyed the future of farming and food in Britain.

B It's easy to say agriculture has to do better, but what should this friendly farming of the future look like? Concerned consumers come up short at this point, facing what appears to be an ever-widening ideological divide. In one corner are the techno-optimists who put their faith in genetically modified crops, improved agrochemicals and computer-enhanced machinery; in the other are advocates of organic farming, who reject artificial chemicals and embrace back-to-nature techniques such as composting. Both sides cite plausible science to back their claims to the moral high ground, and both bring enough passion to the debate for many people to come away thinking we're faced with a stark choice between two mutually incompatible options.

C Not so. If you take off the ideological blinkers and simply ask how the world can produce the food it needs with the least environmental cost, a new middle way opens. The key is sustainability: whatever we do must not destroy the capital of soil and water we need to keep on producing. Like today's organic farming, the intelligent farming of the future should pay much more attention to the health of its soil and the ecosystem it's part of. But intelligent farming should also make shrewd and locally appropriate use of chemical fertilisers and pesticides. The most crucial ingredient in this new style of agriculture is not chemicals but information about what's happening in each field and how to respond. Yet ironically, this key element may be the most neglected today.

D Clearly, organic farming has all the warm, fuzzy sentiment on its side. An approach that eschews synthetic chemicals surely runs no risk of poisoning land and water. And its emphasis on building up natural ecosystems seems to be good for everyone. Perhaps

these easy assumptions explain why sales of organic food across Europe are increasing by at least 50 per cent per year.

E Going organic sounds idyllic-but it's naive, too. Organic agriculture has its own suite of environmental costs, which can be worse than those of conventional farming, especially if it were to become the world norm. But more fundamentally, the organic versus-chemical debate focuses on the wrong question. The issue isn't what you put into a farm, but what you get out of it, both in terms of crop yields and pollutants, and what condition the farm is in when you're done.

F Take chemical fertilisers, which deliver nitrogen, an essential plant nutrient, to crops along with some phosphorus and potassium. It is a mantra of organic farming that these fertilisers are unwholesome, and plant nutrients must come from natural sources. But in fact the main environmental damage done by chemical fertilisers as opposed to any other kind is through greenhouse gases-carbon dioxide from the fossil fuels used in their synthesis and nitrogen oxides released by their degradation. Excess nitrogen from chemical fertilisers can pollute groundwater, but so can excess nitrogen from organic manures.

G On the other hand, relying solely on chemical fertilisers to provide soil nutrients without doing other things to build healthy soil is damaging. Organic farmers don't use chemical fertilisers, so they are very good at building soil fertility by working crop residues and manure into the soil, rotating with legumes that fix atmospheric nitrogen, and other techniques.

H This generates vital soil nutrients and also creates a soil that is richer in organic matter, so it retains nutrients better and is hospitable to the crop's roots and creatures such as earthworms that help maintain soil fertility. Such soil also holds water better and therefore makes more efficient use of both rainfall and irrigation water. And organic matter ties up C02 in the soil, helping to offset emissions from burning fossil fuels and reduce global warming.

I Advocates of organic farming like to point out that fields managed in this way can produce yields just as high as fields juiced up with synthetic fertilisers. For example, Bill Liebhardt, research manager at the Rodale Institute in Kutztown, Pennsylvania recently compiled the results of such comparisons for corn, wheat, soybeans and tomatoes in the US and found that the organic fields averaged between 94 and 100 per cent of the yields of nearby conventional crops.

J But this optimistic picture tells only half the story. Farmers can't grow such crops every year if they want to maintain or build soil nutrients without synthetic fertilisers. They need to alternate with soil-building crops such as pasture grasses and legumes such as alfalfa. So in the long term, the yield of staple grains such as wheat, rice and com must go down. This is the biggest cost of organic farming. Vaclav Smil of the University of Manitoba in Winnipeg, Canada, estimates that if farmers worldwide gave up the 80 million tonnes of

synthetic fertiliser they now use each year, total grain production would fall by at least half. Either farmers would have to double the amount of land they cultivate- at catastrophic cost to natural habitat –or billions of people would starve.

K That doesn't mean farmers couldn't get by with less fertilizer. Technologically advanced farmers in wealthy countries, for instance, can now monitor their yields hectare by hectare, or even more finely, throughout a huge field. They can then target their fertiliser to the parts of the field where it will do the most good, instead of responding to average conditions. This increases yield and decreases fertiliser use. Eventually, farmers may - incorporate long-term weather forecasts into their planning as well, so that they can cut back on fertiliser use when the weather is likely to make harvests poor anyway, says Ron Olson, an agronomist with CargillFertilizer in Tampa, Florida.

L Organic techniques certainly have their benefits, especially for poor farmers. But stric"organic agriculture", which prohibits certain technologies and allows others, isn't always better for the environment. Take herbicides, for example. These can leach into waterways and poison both wildlife and people. Just last month, researchers led by Tyrone Hayes at the University of California at Berkeley found that even low concentrations of atrazine, the most commonly used weedkiller in the US, can prevent frog tadpoles from developing properly.

Questions 1 – 4

Use the information in the passage to match the people (listed A-D) with opinions or deeds below. Write the appropriate letters A-D in boxes 1-4 on your answer sheet.

A Vaclav Smil

B Bill Liebhardt

C Kenneth Cassman

D Ron Olson

1 Use of chemical fertilizer can be optimised by combining weather information.

2 Organic framing yield is nearly equal to traditional ones.

3 Better agricultural setting is a significant key to solve environmental tough nut.

4 Substantial production loss would happen in case all farmers shifted from using synthetic fertiliser.

Questions 5 – 9

Do the following statements agree with the information given in Reading Passage 1 In boxes 5-9 on your answer sheet, write

YES if the statement agrees with the information

NO if the statement contradicts the information

NOT GIVEN if there is no information on this

5 Increasing population, draining irrigation, eroding farmland push agricultural industry to extremity.

6 There are only two options for farmers; they use chemical fertiliser or natural approach.

7 Chemical fertilizer currently are more expensive than the natural fertilisers.

8 In order to keep nutrient in the soil, organic farmers need to rotate planting method.

9 "organic agriculture" is the way that environment-damaging technologies are all strictly forbidden.

Questions 10-13

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 10-13 on your answer sheet.

Several 10 ..... approaches need to be applied in order that global population wouldn't go starved. A team called 11..... repeated the viewpoint of a scholar by a survey in British farming. More and more European farmers believe in 12.....farming these years. The argument of organic against 13.....seems in an inaccurate direction.

SECTION 2

You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 1 on the following pages.

The Pearl

A Throughout history, pearls have held a unique presence within the wealthy and powerful. For instance, the pearl was the favored gem of the wealthy during the Roman Empire. This gift from the sea had been brought back from the orient by the Roman conquests. Roman women wore pearls to bed so they could be reminded of their wealth immediately upon waking up. Before jewelers learned to cut gems, the pearl was of greater value than the diamond. In the Orient and Persia Empire, pearls were ground into powders to cure anything from heart disease to epilepsy, with possible aphrodisiac uses as well. Pearls were once considered an exclusive privilege for royalty. A law in 1612 drawn up by the Duke of Saxony prohibited the wearing of pearls by nobility, professors, doctors or their wives in an effort to further distinguish royal appearance. American Indians also used freshwater pearls from the Mississippi River as decorations and jewelry.

B There are essentially three types of pearls: natural, cultured and imitation. A natural pearl (often called an Oriental pearl) forms when an irritant, such as a piece of sand, works its way into a particular species of oyster, mussel, or clam. As a defense mechanism, the mollusk secretes a fluid to coat the irritant. Layer upon layer of this coating is deposited on the irritant until a lustrous pearl is formed.

C The only difference natural pearls and cultured pearls is that the irritant is a surgically implanted bead or piece of shell called Mother of Pearl. Often, these shells are ground oyster shells that are worth significant amounts of money in their own right as irritant-catalysts for quality pearls. The resulting core is, therefore, much larger than in a natural pearl. Yet, as long as there are enough layers of nacre (the secreted fluid covering the irritant) to result in a beautiful, gem-quality pearl, the size of the nucleus is of no consequence to beauty or durability.

D Pearls can come from either salt or freshwater sources. Typically, saltwater pearls tend to be higher quality, although there are several types of freshwater pearls that are considered high in quality as well. Freshwater pearls tend to be very irregular in shape, with a puffed rice appearance the most prevalent. Nevertheless, it is each individual pearls merits that determines value more than the source of the pearl. Saltwater pearl oysters

are usually cultivated in protected lagoons or volcanic atolls. However, most freshwater cultured pearls sold today come from China. Cultured pearls are the response of the shell to a tissue implant. A tiny piece of mantle tissue from a donor shell is transplanted into a recipient shell. This graft will form a pearl sac and the tissue will precipitate calcium carbonate into this pocket. There are a number of options for producing cultured pearls: use freshwater or seawater shells, transplant the graft into the mantle or into the gonad, add a spherical bead or do it non-beaded. The majority of saltwater cultured pearls are grown with beads.

E Regardless of the method used to acquire a pearl, the process usually takes several years. Mussels must reach a mature age, which can take up to 3 years, and then be implanted or naturally receive an irritant. Once the irritant is in place, it can take up to another 3 years for the pearl to reach its full size. Often, the irritant may be rejected, the pearl will be terrifically misshapen, or the oyster may simply die from disease or countless other complications. By the end of a 5 to 10 year cycle, only 50% of the oysters will have survived. And of the pearls produced, only approximately 5% are of substantial quality for top jewelry makers. From the outset, a pearl farmer can figure on spending over $100 for every oyster that is farmed, of which many will produce nothing or die.

F Imitation pearls are a different story altogether. In most cases, a glass bead is dipped into a solution made from fish scales. This coating is thin and may eventually wear off. One can usually tell an imitation by biting on it. Fake pearls glide across your teeth, while the layers of nacre on real pearls feel gritty. The Island of Mallorca (in Spain) is known for its imitation pearl industry. Quality natural pearls are very rare jewels. The actual value of a natural pearl is determined in the same way as it would be for other "precious" gems. The valuation factors include size, shape, and color, quality of surface, orient and luster. In general, cultured pearls are less valuable than natural pearls, whereas imitation pearls almost have no value. One way that jewelers can determine whether a pearl is cultured or natural is to have a gem lab perform an x-ray of the pearl. If the x-ray reveals a nucleus, the pearl is likely a bead-nucleated saltwater pearl. If no nucleus is present, but irregular and small dark inner spots indicating a cavity are visible, combined with concentric rings

of organic substance, the pearl is likely a cultured freshwater. Cultured freshwater pearls can often be confused for natural pearls which present as homogeneous pictures which continuously darken toward the surface of the pearl. Natural pearls will often show larger cavities where organic matter has dried out and decomposed. Although imitation pearls look the part, they do not have the same weight or smoothness as real pearls, and their luster will also dim greatly. Among cultured pearls, Akoya pearls from Japan are some of the most lustrous. A good quality necklace of 40 Akoya pearls measuring 7mm in diameter sells for about $1,500, while a super- high quality strand sells for about $4,500. Size on the other hand, has to do with the age of the oyster that created the pearl (the more mature oysters produce larger pearls) and the location in which the pearl was cultured. The South Sea waters of Australia tend to produce the larger pearls; probably because the water along the coast line is supplied with rich nutrients from the ocean floor. Also, the type of mussel common to the area seems to possess a predilection for producing comparatively large pearls

G Historically, the world's best pearls came from the Persian Gulf, especially around what is now Bahrain. The pearls of the Persian Gulf were natural created and collected by breath-hold divers. The secret to the special luster of Gulf pearls probably derived from the unique mixture of sweet and salt water around the island. Unfortunately, the natural pearl industry of the Persian Gulf ended abruptly in the early 1930's with the discovery of large deposits of oil. Those who once dove for pearls sought prosperity in the economic boom ushered in by the oil industry. The water pollution resulting from spilled oil and indiscriminate over-fishing of oysters essentially ruined the once pristine pearl producing waters of the Gulf. Today, pearl diving is practiced only as a hobby. Still, Bahrain remains one of the foremost trading centers for high quality pearls. In fact, cultured pearls are banned from the Bahrain pearl market, in an effort to preserve the location's heritage. Nowadays, the largest stock of natural pearls probably resides in India. Ironically, much of India's stock of natural pearls came originally from Bahrain. Unlike Bahrain, which has essentially lost its pearl resource, traditional pearl fishing is still practiced on a small scale in India.

Questions 14-17

Reading Passage 1 has seven paragraphs, A-G. Which paragraph contains the following information?

Write the correct letter A-G in boxes 1-4 on your answer sheet.

14 ancient stories around the pearl and customers

15 Difficulties in cultivating process.

16 Factors can decide the value of natural pearls.

17 Different growth mechanisms that distinguish the cultured pearls from natural ones.

Questions 18 – 23

Complete the summary below

Choose letter from A-K for each answer. Write them in boxes 5-10 on your answer sheet.

In ancient history, pearls have great importance within the rich and rulers, which was treated as gem for women in **18**..... And pearls were even used as medicine and sex drug for people in **19**..... There are essentially three types of pearls: natural, cultured and imitation. Most freshwater cultured pearls sold today come from China while the **20**..... is famous for its imitation pearl industry. The country **21**..... usually manufactures some of the glitteriest cultured ones while the nation such as **22**..... produces the larger sized pearl due to the favorable environment along the coast line. In the past, one country of **23** ..... in Gulf produced the world's best pearls. Nowadays, the maJor remaining suppliers of the natural pearls belongs to India

A America	B Ancient Rome	C Australia	
D Bahrain	E China	F Japan	G India
H Korea	I Mexico	J Persia	K Spain

Questions 24 – 27

Do the following statements agree with the information given in the Reading Passage 1? In boxes 11-14 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

24 Often cultured pearl's centre is significantly larger than in a natural pearl.

25 Cultivated cultured pearls are generally valued the same much as natural ones.

26 The size of pearls produced in Japan is usually of smaller size than those came from Australia.

27 Akoya pearls from Japan Glows more deeply than the South Sea pearls of Australia

SECTION 3

Scent of success

A Innovation and entrepreneurship, in the right mix, can bring spectacular results and propel a business ahead of the pack. Across a diverse range of commercial successes, from the Hills Hoist clothes line to the Cochlear ear implant, it is hard to generalize beyond saying the creators tapped into something consumers could not wait to get their hands on. However, most ideas never make it to the market. Some ideas that innovators are spruiking to potential investors include new water-saving shower heads, a keyless locking system, ping-pong balls that keep pollution out of rainwater tanks, making teeth grow from stem cells inserted in the gum, and technology to stop LPG tanks from exploding. Grant Kearney, chief executive of the Innovation Xchange, which connects businesses to innovation networks, says he hears of great business ideas that he knows will never get on the market. "Ideas by themselves are absolutely useless," he says. "An idea only becomes innovation when it is connected to the right resources and capabilities."

B One of Australia's latest innovation successes stems from a lemon-scented bath-room cleaner called Shower Power, the formula for which was concocted in a factory in Yatala,

Queensland. In 1995, Tom Quinn and John Heron bought a struggling cleaning products business, OzKleen, for 250,000. It was selling 100 different kinds of cleaning products, mainly in bulk. The business was in bad shape, the cleaning formulas were ineffective and environmentally harsh, and there were few regular clients. Now Shower Power is claimed to be the top-selling bathroom cleaning product in the country. In the past 12 months, almost four million bottles of OzKleen's Power products have been sold and the company forecasts 2004 sales of 10 million bottles. The company's, sales in2003 reached $11 million, with 700k of business being exports. In particular, Shower Power is making big inroads on the British market.

C OzKleen's turnaround began when Quinn and Heron hired an industrial chemist to revitalize the product line. Market research showed that people were looking for a better cleaner for the bathroom, universally regarded as the hardest room in the home to clean. The company also wanted to make the product formulas more environmentally friendly One of Tom Quinn's sons, Peter, aged 24 at the time, began working with the chemist on the formulas, looking at the potential for citrus-based cleaning products. He detested all the chlorine-based cleaning products that dominated the market. "We didn't want to use chlorine, simple as that," he says. "It offers bad working conditions and there's no money in it." Peter looked at citrus ingredients, such as orange peel, to replace the petroleum by-products in cleaners. He is credited with finding the Shower Power formula. "The head," he says. The company is the recipe is in a vault somewhere and in my sole owner of the intellectual property.

D To begin with, Shower Power was sold only in commercial quantities but Tom Quinn decided to sell it in 750ml bottles after the constant "raves" from customers at their retail store at Beenleigh, near Brisbane. Customers were travel- ling long distances to buy supplies. Others began writing to OzKleen to say how good Shower Power was. "We did a dummy label and went to see Woolworths," Tom Quinn says. The Woolworths buyer took a bottle home and was able to remove a stain from her basin that had been impossible to shift. From that point on, she championed the product and OzKleen had its

first super¬market order, for a palette of Shower Power worth $3000. “We were over the moon,” says OzKleen’s financial controller, Belinda McDonnell.

E Shower Power was released in Australian supermarkets in 1997 and became the top-selling product in its category within six months. It was all hands on deck at the factory, labeling and bottling Shower Power to keep up with demand. OzKleen ditched all other products and rebuilt the business around Shower Power. This stage, recalls McDonnell, was very tough. “It was hand-to-mouth, cash flow was very difficult,” she says. OzKleen had to pay new-line fees to supermarket chains, which also squeezed margins.

F OzKleen’s next big break came when the daughter of a Coles Myer executive 1 used the product while on holidays in Queensland and convinced her father that Shower Power should be in Coles supermarkets. Despite the product success, Peter Quinn says the company was wary of how long the sales would last and hesitate to spend money on upgrading the manufacturing process. As a result, he remembers long periods of working around the clock to keep up with orders. Small tanks were still being used so batches were small and bottles were labeled and filled manually The privately owned OzKleen relied on cash-flow to expand. “The equipment could not keep up with demand,” Peter Quinn says. Eventually a new bottling machine was bought for $50,000 in the hope of streamlining production, but he says: “We got ripped off.” Since then he has been developing a new automated bottling machine that can control the amount of foam produced in the liquid, so that bottles can be filled more effectively – “I love coming up with new ideas.” The machine is being patented.

G Peter Quinn says OzKleen’s approach to research and development is open slather. “If I need it, I get I it. It is about doing something simple that no one else is doing. Most of these things are just sitting in front of people … it’s just seeing the opportunities.” With a tried and tested product, OzKleen is expanding overseas and developing more Power-brand household products. Tom Quinn, who previously ran a real estate agency, says: “We are competing with the same market all over the world; the (cleaning) products are sold everywhere.” Shower Power, known as Bath Power in Britain, was launched four years ago

with the help of an export development grand from the Federal Government. "We wanted to do it straight away because we realized we had the same opportunities worldwide." OzKleen is already number three in the British market, and the next stop is France. The Power range includes cleaning products for carpets, kitchens and pre-wash stain removal. The Quinn and Heron families are still involved. OzKleen has been approached with offers to buy the company, but Tom Quinn says he is happy with things as they are. "We're having too much fun."

Questions 28-34

Reading Passage 1 has six paragraphs, A—G.

Which paragraph contains the following information?

Write the correct letter A-G, in boxes 1-7 on your answer sheet.

NB You may use any letter more than once.

28 Description of one family member persuading another of selling cleaning products

29 An account of the cooperation of all factory staff to cope with sales increase

30 An account of the creation of the formula of Shower Power

31 An account of buying the original OzKleen company

32 Description of Shower Power's international expansion

33 The reason of changing the packaging size of Shower Power

34 An example of some innovative ideas

Questions 35 – 38

Look at the following people and list of statements below.

Match each person with the correct statement

Write the correct letter A-E in boxes 8-11 on your answer sheet.

35 Grant Keamey

36 Tom Quinn

37 PeterQuinn

38 BelindaMcDonnell

List of Statement

A Described his story of selling his product to a chain store

B Explained there was a shortage of money when sales suddenly increased

C Believe innovations need support to succeed

D Believes new products like Shower Power may incur risks

E Says business won't succeed with innovations

Questions 39 – 40

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

Write your answers in boxes 12-13 on your answer sheet.

39 Tom Quinn changed the bottle size to 750ml to make Shower Power

A Easier to package.

B Appealing to individual customers.

C Popular in foreign markets.

D Attractive to supermarkets.

40 Why did Tom Quinn decide not to sell OzKleen?

A No one wanted to buy OzKleen.

B New products were being developed in OzKleen.

C He couldn't make an agreement on the price with the buyer.

D He wanted to keep things unchanged.

ANSWER KEY

SECTION 1

1	D	**2**	B	**3**	C
4	A	**5**	YES	**6**	NO
7	NOT GIVEN	**8**	YES	**3**	NO
10	Farming	**11**	Curry	**12**	Natural/ organic
13	Chemical				

SECTION 2

14	A	15	E	16	F
17	C	18	B	19	J
20	K	21	F	22	C
23	D	24	TRUE	25	FALSE
26	TRUE	27	NOT GIVEN		

SECTION 3

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

TEST 5

SECTION 1

Copy your neighbor

A THERE'S no animal that symbolises rainforest diversity quite as spectacularly as the tropical butterfly. Anyone lucky enough to see these creatures flitting between patches of sunlight cannot fail to be impressed by the variety of their patterns. But why do they display such colourful exuberance? Until recently, this was almost as pertinent a question as it had been when the 19th-century naturalists, armed only with butterfly nets and insatiable curiosity, battled through the rainforests. These early explorers soon realised that although some of the butterflies' bright colours are there to attract a mate, others are warning signals. They send out a message to any predators: "Keep off, we're predicting poisonous." And because wearing certain patterns affords protection, other species copy them. Biologists use the term mimicry rings for these clusters of impostors and their evolutionary idol.

B But here's the conundrum. "Classical mimicry theory says that only a single ring should be found in any one area," explains George Beccaloni of the Natural History Museum, London. The idea is that in each locality there should be just the one pattern that best protects its wearers. Predators would quickly learn to avoid it and eventually all mimetic species in a region should converge upon it. "The fact that this is patently not the case has been one of the major problems in mimicry research," says Beccaloni. In pursuit of a solution to the mystery of mimetic exuberance, Beccaloni set off for one of the megacentres for butterfly diversity, the point where the western edge of the Amazon basin meets the foothills of the Andes in Ecuador. "It's exceptionally rich, but comparatively well collected, so I pretty much knew what was there, says Beccaloni." The trick was to work out how all the butterflies were organised and how this related to mimicry."

C Working at the Jatun Sacha Biological Research Station on the banks of the Rio Napo, Beccaloni focused his attention on agroup of butterflies called ithomiines. These distant

relatives of Britain's Camberwell Beauty are abundant throughout Central and South America and the Caribbean. They are famous for their bright colours, toxic bodies and complex mimetic relationships. "They can comprise up to 85 per cent of the individuals in a mimicry ring and their patterns are mimicked not just by butterflies, but by other insects as diverse as damselflies and true bugs," says Philip DeVries of the Milwaukee Public Museum's Center for Biodiversity Studies.

D Even though all ithomiines are poisonous, it is in their interests to evolve to look like one another because predators that learn to avoid one species will also avoid others that resemble it. This is known as Mullerian mimicry. Mimicry rings may also contain insects that are not toxic, but gain protection by looking likes a model species that is: an adaptation called Batesian mimicry. So strong is an experienced predator's avoidance response that even quite inept resemblance gives some protection. "Often there will be a whole series of species that mimic, with varying degrees of verisimilitude, a focal or model species," says John Turner from the University of Leeds. "The results of these deceptions are some of the most exquisite examples of evolution known to science." In addition to colour, many mimics copy behaviours and even the flight pattern of their model species.

E But why are there so many different mimicry rings? One idea is that species flying at the same height in the forest canopy evolve to look like one another. "It had been suggested since the 1970s that mimicry complexes were stratified by flight height," says DeVries. The idea is that wing colour patterns are camouflaged against the different patterns of light and shadow at each level in the canopy, providing a first line of defence, against predators." But the light patterns and wing patterns don't match very well," he says. And observations show that the insects do not shift in height as the day progresses and the light patterns change. Worse still, according to DeVries, this theory doesn't explain why the model species is flying at that particular height in the first place

F "When I first went out to Ecuador, I didn't believe the flight height hypothesis and set out to test it," says Beccaloni."A few weeks with the collecting net convinced me

otherwise. They really flew that way." What he didn't accept, however, was the explanation about light patterns. "I thought, if this idea really is true, and I can work out why, it could help explain why there are so many different warning patterns in any one place. Then we might finally understand how they could evolve in such a complex way." The job was complicated by the sheer diversity of species involved at Jatun Sacha. Not only were there 56 ithomiine butterfly species divided among eight mimicry rings, there were also 69 other insect species, including 34 day-flying moths and a damselfly, all in a 200-hectare study area. Like many entomologists before him, Beccaloni used a large bag-like net to capture his prey. This allowed him to sample the 2.5 metres immediately above the forest floor. Unlike many previous workers, he kept very precise notes on exactly where he caught his specimens

G The attention to detail paid off. Beccaloni found that the mimicry rings were flying at two quite separate altitudes. "Their use of the forest was quite distinctive," he recalls. "For example, most members of the clear¬winged mimicry ring would fly close to the forest floor, while the majority of the 12 species in the tiger-winged ring fly high up." Each mimicry ring had its own characteristic flight height.

H However, this being practice rather than theory, things were a bit fuzzy. "They'd spend the majority of their time flying at a certain height. But they'd also spend a smaller proportion of their time flying at other heights," Beccaloni admits. Species weren't stacked rigidly like passenger jets waiting to land, but they did appear to have a preferred airspace in the forest. So far, so good, but he still hadn't explained what causes the various groups of ithomiines and their chromatic consorts to fly in formations at these particular heights.

I Then Beccaloni had a bright idea. "I started looking at the distribution of ithomiine larval food plants within the canopy," he says. "For each one I'd record the height to which the host plant grew and the height above the ground at which the eggs or larvae were found. Once I got them back to the field station's lab, it was just a matter of keeping them alive until they pupated and then hatched into adults which I could identify."

Questions 1 – 5

The reading Passage has seven paragraphs A-I.

Which paragraph contains the following information?

Write the correct letter A-I, in boxes 1-5 on your answer sheet.

NB You may use any letter more than once.

1 Criticism against flight height theory of butterfly

2 Explained why Beccaloni carried out research in Ecuador.

3 Different mimicry ring flies at different height

4 The method of catching butterfly by Beccaloni

5 Not all Mimicry patterns are toxic information sent out from insects.

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 All butterflies' colour of wing reflect the sense of warning to other predator.

7 Insects may imitate butterflies' wing pattern as well.

8 Flying Altitude of butterfly is determined by their food.

9 Beccaloni agreed with flight height hypothesis and decide to reassure its validity.

10 Jatun Sacha has the riches diversity of breeds in the world.

11 Beecaloni has more detailed records on the location of butterfly collection than others.

Questions 12-13

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

Write your answers in boxes 12-13 on your answer sheet.

12 Which is correct about butterflies flight altitude ?

A Flight height theory already established

B Butterfly always flies at a certain height

C It is like the airplane's flying phenomenon

D Each butterfly has its own favorable height

13 Which is correct about Beccaloni next investigation after flight height?

A Some certain statistics have already been collected

B Try to find connections between larval height and adult ones

C It's very difficult to raise butterfly larval

D Different larval favors different kinds of trees

SECTION 2

What are you laughing at?

A We like to think that laughing is the height of human sophistication. Our big brains let us see the humour in a strategically positioned pun, an unexpected plot twist or a clever piece of word play. But while joking and wit are uniquely human inventions, laughter certainly is not. Other creatures, including chimpanzees, gorillas and even rats, chuckle. Obviously, they don't crack up at Homer Simpson or titter at the boss's dreadful jokes, but the fact that they laugh in the first place suggests that sniggers and chortles have been around for a lot longer than we have. It points the way to the origins of laughter, suggesting a much more practical purpose than you might think.

B There is no doubt that laughing typical involves groups of people. 'Laughter evolved as a signal to others – it almost disappears when we are alone,' says Robert Provine, a neuroscientist at the University of Maryland. Provine found that most laughter comes as a polite reaction to everyday remarks such as 'see you later', rather than anything particularly funny. And the way we laugh depends on the company we're keeping. Men tend to laugh longer and harder when they are with other men, perhaps as a way of bonding. Women tend to laugh more and at a higher pitch when men are present, possibly indicating flirtation or even submission.

C To find the origins of laughter, Provine believes we need to look at play. He points out that the masters of laughing are children, and nowhere is their talent more obvious than in the boisterous antics, and the original context is play,' he say. Well-known primate watchers, including Dian Fossey and Jane Goodall, have long argued that chimps laugh while at play. The sound they produce is known as a pant laugh. It seems obvious when you watch their behavior – they even have the same ticklish spots as we do. But remove the context, and the parallel between human laughter and a chimp's characteristic pant laugh is not so clear. When Provine played a tape of the pant laughs to 119 of his students, for example, only two guessed correctly what it was.

D These findings underline how chimp and human laughter vary. When we laugh the sound is usually produced by chopping up a single exhalation into a series of shorter with one sound produced on each inward and outward breath. The question is: does this pant laughter have the same source as our own laughter? New research lends weight to the idea that it does. The findings come from Elke Zimmerman, head of the Institute for Zoology in Germany, who compared the sounds made by babies and chimpanzees in response to tickling during the first year of their life. Using sound spectrographs to reveal the pitch and intensity of vocalizations, she discovered that chimp and human baby laughter follow broadly the same pattern. Zimmerman believes the closeness of baby laughter to chimp laughter supports the idea that laughter was around long before humans arrived on the scene. What started simply as a modification of breathing associated with enjoyable and playful interactions has acquired a symbolic meaning as an indicator of pleasure.

E Pinpointing when laughter developed is another matter. Humans and chimps share a common ancestor that lived perhaps 8 million years ago, but animals might have been laughing long before that. More distantly related primates, including gorillas, laugh, and anecdotal evidence suggests that other social mammals nay do too. Scientists are currently testing such stories with a comparative analysis of just how common laughter is among animals. So far, though, the most compelling evidence for laughter beyond primates comes from research done by Jaak Panksepp from Bowling Green State University, Ohio, into the ultrasonic chirps produced by rats during play and in response to tickling.

F All this still doesn't answer the question of why we laugh at all. One idea is that f laughter and tickling originated as a way of sealing the relationship between mother and child. Another is that the reflex response to tickling is protective, alerting us to the presence of crawling creatures that might harm us or compelling us to defend the parts of our bodies that are most vulnerable in hand-to-hand combat. But the idea that has gained most popularity in recent years is that laughter in response to tickling is a way for two

individuals to signal and test their trust in one another. This hypothesis starts from the observation that although a little tickle can be enjoyable, if it goes on too long it can be torture. By engaging in a bout of tickling, we put ourselves at the mercy of another individual, and laughing is a signal that we laughter is what makes it a reliable signal of trust according to Tom Flamson, a laughter researcher at the University of California, Los Angeles. 'Even in rats, laughter, tickle, play and trust are linked. Rats chirp a lot when they play, 'syas Flamson. 'These chirps can be aroused by tickling. And they get bonded to us as a result, which certainly seems like a show of trust.'

G We'll never know which animal laughed the first laugh, or why. But we can be sure it wasn't in response to a prehistoric joke. The funny thing is that while the origins of laughter are probably quite serious, we owe human laughter and our language-based humor to the same unique skill. While other animals pant, we alone can control our breath well enough to produce the sound of laughter. Without that control there would also be no speech – and no jokes to endure.

Questions 14 – 19

Look at the following research findings (questions 1-6) and the list of people below.

Match each finding with the correct person, A, B, C or D.

Write the correct letter, A, B, C or D, in boxes 1-6 on your answer sheet.

NB You may use any letter more than once.

A Tom Flamson

B Elke Zimmerman

C Robert Provine

D Jaak Panksepp

14 Babies and chimps produce similar sounds of laughter .

15 Primates are not the only animals who produce laughter Pan

16 Laughter also suggests that we feel safe and easy with others.

17 Laughter is a response to polite situation instead of humour.

18 Animal laughter evolved before human laughter

19 Laughter is a social activity.

Questions 20 – 23

Complete the summary using the list of words, A-K, below. Write the correct letter, A-K, in boxes 7-10 on your answer sheet.

Some researchers believe that laughter first evolved out of **20**..... . Investigation has revealed that human and chimp laughter may have the same **21** ..... . Besides, scientists have been aware that **22**..... laugh, however, it now seems that laughter might be more widespread than once we thought. Although the reasons why humans started to laugh are still unknown, it seems that laughter may result from the **23**..... we feel with another person

A evolution	B chirps	C origins	D voice
E confidence	F rats	G primates	H response
I play	J children	K tickling	

Questions 24 – 26

Do the following statements agree with the information given in Reading Passage 1? In boxes 11-13 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

24 Both men and women laugh more when they are with members of the same sex.

25 Primates lack sufficient breath control to be able to produce laughs the way humans do.

26 Chimpanzees produce laughter in a wider range of situations than rats do

SECTION 3

Memory Decoding

Try this memory test: Study each face and compose a vivid image for the person's first and last name Rose Leo, for example, could be a rosebud and a lion. Fill in the blanks on the next page. The Examinations School at Oxford University is an austere building of oak-paneled rooms, large Gothic windows, and looming portraits of eminent dukes and earls. It is where generations of Oxford students have tested their memory on final exams, and it is where, last August, 34 contestants gathered at the World Memory Championships to be examined in an entirely different manner.

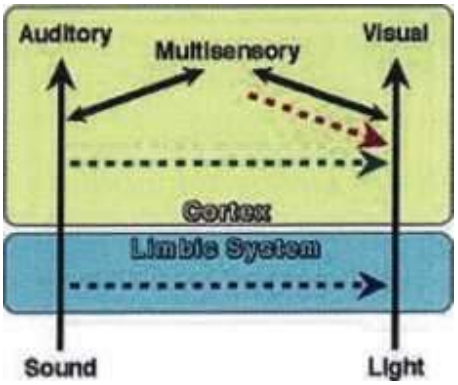
A In timed trials, contestants were challenged to took at and then recite a two-page poem, memorize rows of 40-digit numbers, recall the names of 110 people after looking at their photographs, and perform seven other feats of extraordinary retention. Some tests took just a few minutes; others lasted hours. In the 14 years since the World Memory Championships was founded, no one has memorized the order of a shuffled deck of playing cards in less than 30 seconds. That nice round number has become the four-minute mile of competitive memory, a benchmark that the world's best "mental athletes," as some of them like to be called are closing in on. Most contestants claim to have just

average memories, and scientific testing confirms that they're not just being modest. Their feats are based on tricks that capitalize on how the human brain encodes information. Anyone can learn them.

B Psychologists Elizabeth Valentine and John Wilding, authors of the monograph Superior Memory, recently teamed up with Eleanor Maguire, a neuroscientist at University College London to study eight people, including Karsten, who had finished near the top of the World Memory Championships. They wondered if the contestants' brains were different in some way. The researchers put the competitors and a group of control subjects into an MRI machine and asked them to perform several different memory tests while their brains were being scanned When it came to memorizing sequences of three-digit numbers, the difference between the memory contestants and the control subjects was, as expected immense. However, when they were show photographs of magnified snowflakes, images that the competitors had never tried to memorize before, the champions did no better than the control group. When the researchers analyzed the brain scans, they found that the memory champs were activating some brain regions that were different from those the control subjects were using. These regions, which included the right posterior hippocampus, are known to be involved in visual memory and spatial navigation.

C It might seem odd that the memory contestants would use visual imagery and spatial navigation to remember numbers, but the activity makes sense when their techniques are revealed Cooke, a 23-year-old cognitive-science graduate student with a shoulder-length mop of curly hair, is a grand master of brain storage. He can memorize the order of 10 decks of playing cards in less than an hour or one deck of cards in less than a minute. He is closing in on the 30-second deck. In the Lamb and Flag, Cooke pulled out a deck of cards and shuffled it. He held up three cards—the 7 of spades, the queen of clubs, and the 10 of spades. He pointed at a fireplace and said "Destiny's Child is whacking Franz Schubert with handbags." The next three cards were the king of hearts, the king of spades, and the jack of clubs.

D



How did he do it? Cooke has already memorized a specific person, verb, and object that he associates with each card in the deck. For example, for the 7 of spades, the person (or, in this case, persons) is always the singing group Destiny's Child the action is surviving a storm, and the image is a dinghy. The queen of clubs is always his friend Henrietta, the action is thwacking with a handbag, and the image is of wardrobes filled with designer clothes. When Cooke commits a deck to memory, he does it three cards at a time. Every three-card group forms a single image of a person doing something to an object. The first card in the triplet becomes the person, the second the verb, the third the object. He then places those images along a specific familiar route, such as the one he took through the Lamb and Flag. In competitions, he uses an imaginary route that he has designed to be as smooth and downhill as possible. When it comes time to recall Cooke takes a mental walk along his route and translates the images into cards. That's why the MRIs of the memory contestants showed activation in the brain areas associated with visual imagery and spatial navigation.

E The more resonant the images are, the more difficult they are to forget. But even meaningful information is hard to remember when there's a lot of it. That's why competitive memorizers place their images along an imaginary route. That technique, known as the toci method reportedly originated in 477 B.C. with the Greek poet Simonides of Ceos. Simonides was the sole survivor of a roof collapse that killed all the other guests

at a royal banquet. The bodies were mangled beyond recognition, but Simonides was able to reconstruct the guest list by closing his eyes and recalling each individual around the dinner table. What he had discovered was that our brains are exceptionally good at remembering images and spatial information. Evolutionary psychologists have offered an explanation: Presumably our ancestors found it important to recall where they found their last meal or the way back to the cave. After Simonides' discovery, the loci method became popular across ancient Greece as a trick for memorizing speeches and texts. Aristotle wrote about it, and later a number of treatises on the art of memory were published in Rome. Before printed books, the art of memory was considered a staple of classical education, on a par with grammar, logic, and rhetoric.

F The most famous of the naturals was the Russian journalist S. V. Shereshevski, who could recall long lists of numbers memorized decades earlier, as well as poems, strings of nonsense syllables, and just about anything else he was asked to remember. "The capacity of his memory had no distinct limits," wrote Alexander Luria, the Russian psychologist who studied Shereshevski from the 1920s to the 1950s. Shereshevski also had synesthesia, a rare condition in which the senses become intertwined For example, every number may be associated with a color or every word with a taste. Synesthetic reactions evoke a response in more areas of the brain, making memory easier.

G K. Anders Ericsson, a Swedish-born psychologist at Florida State University, thinks anyone can acquire Shereshevski's skills. He cites an experiment with S. F., an undergraduate who was paid to take a standard test of memory called the digit span for one hour a day, two or three days a week. When he started, he could hold, like most people, only about seven digits in his head at any given time (conveniently, the length of a phone number). Over two years, S. F. completed 250 hours of testing. By then, he had stretched his digit span from 7 to more than 80. The study of S. F. led Ericsson to believe that innately superior memory doesn't exist at alL When he reviewed original case studies of naturals, he found that exceptional memorizers were using techniques—sometimes without realizing it—and lots of practice. Often, exceptional memory was only for a single

type of material, like digits. "If we look at some of these memory tasks, they're the kind of thing most people don't even waste one hour practicing, but if they wasted 50 hours, they'd be exceptional at it," Ericsson says. It would be remarkable, he adds, to find a "person who is exceptional across a number of tasks. I don't think that there's any compelling evidence that there are such people."

Questions 27-31

The reading Passage has seven paragraphs A-G.

Which paragraph contains the following information? Write the correct letter A-G, in boxes 27-30 on your answer sheet.

27 The reason why competence of super memory is significant in academic settings

28 Mention of a contest for extraordinary memory held in consecutive years

29 An demonstrative example of extraordinary person did an unusual recalling game

30 A belief that extraordinary memory can be gained though enough practice

31 A depiction of rare ability which assist the extraordinary memory reactions

Questions 32-36

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 32-36 on your answer sheet.

Using visual imagery and spatial navigation to remember numbers are investigated and explained. A man called Ed Cooke in a pub, spoke a string of odd words when he held 7 of the spades (the first one of the any cards group) was remembered as he encoded it to a **32**_____ and the card deck to memory are set to be one time of a order of **33**

_____; When it comes time to recall, Cooke took a **34** _____along his way and interpreted the imaginary scene into cards. This superior memory skill can be traced back to Ancient Greece, the strategy was called **35** _____which had been an major subject was in ancient **36**_____ .

Questions 37-38

Choose TWO correct letter, A-E

Write your answers in boxes 37-38 on your answer sheet.

According to World Memory Championships, what activities need good memory?

A order for a large group of each digit

B recall people's face

C resemble a long Greek poem

D match name with pictures and features E recall what people ate and did yesterday

Questions 39-40

Choose TWO correct letter, A-E

Write your answers in boxes 39-40 on your answer sheet.

What is the result of Psychologists Elizabeth Valentine and John Wilding's MRI Scan experiment find out?

A the champions ' brains is different in some way from common people

B difference in brain of champions' scan image to control subjects are shown when memorizing sequences of three-digit numbers

C champions did much worse when they are asked to remember photographs

D the memory-champs activated more brain regions than control subjects

E there is some part in the brain coping with visual and spatial memory

ANSWER KEY

SECTION 1

1	E	**2**	B	**3**	G
4	F	**5**	D	**6**	FALSE
7	TRUE	**8**	NOT GIVEN	**9**	FALSE
10	NOT GIVEN	**11**	TRUE	**12**	D
13	B				

SECTION 2

14	B	**15**	D	**16**	A
17	C	**18**	B	**19**	C
20	I	**21**	C	**22**	G
23	E	**24**	NOT GIVEN	**25**	TRUE
26	NOT GIVEN				

SECTION 3

27	E	28	A	29	C
30	G	31	F	32	Specific person
33	Three cards/ 3 cards	34	Mental walk	35	Loci method
36	Education	37	A	38	D
39	B	40	E		

TEST 6

SECTION 1

Coastal Archaeology of Britain

A The recognition of the wealth and diversity of England's coastal archaeology has been one of the most important developments of recent years. Some elements of this enormous resource have long been known. The so-called 'submerged forests' off the coasts of England, sometimes with clear evidence of human activity, had attracted the interest of antiquarians since at least the eighteenth century but serious and systematic attention has been given to the archaeological potential of the coast only since the early 1980s.

B It is possible to trace a variety of causes for this concentration of effort and interest In the 1980s and 1990s scientific research into climate change and its environmental impact spilled over into a much broader public debate as awareness of these issues grew; the prospect of rising sea levels over the next century, and their impact on current coastal environments, has been a particular focus for concern. At the same time archaeologists were beginning to recognize that the destruction caused by natural processes of coastal erosion and by human activity was having an increasing impact on the archaeological resource of the coast.

C The dominant process affecting the physical form of England in the post- glacial period has been the rise in the altitude of sea level relative to the land, as the glaciers melted and the landmass readjusted. The encroachment of the sea, the loss of huge areas of land now under the North Sea and the English Channel, and especially the loss of the land bridge between England and France, which finally made Britain an island, must have been immensely significant factors in the lives of our prehistoric ancestors. Yet the way in which prehistoric communities adjusted to these environmental changes has seldom been a major theme in discussions of the period. One factor contributing to this has been that, although the rise in relative sea level is comparatively well documented, we know little about the constant reconfiguration of the coastline. This was affected by many processes, mostly quiet, which have not yet been adequately researched. The detailed reconstruction of coastline histories and the changing environments available for human use will be an important theme for future research.

D So great has been the rise in sea level and the consequent regression of the coast that uch of the archaeological evidence now exposed in the coastal zone, whether being eroded or exposed as a buried land surface, is derived from what was originally terrestrial occupation. Its current location in the coastal zone is the product of later unrelated processes, and it can tell us little about past adaptations to the sea. Estimates of its significance will need to be made in the context of other related evidence from dry land sites. Nevertheless, its physical environment means that preservation is often excellent, for example in the case of the Neolithic structure excavated at the Stumble in Essex.

E In some cases these buried land surfaces do contain evidence for human exploitation of what was a coastal environment, and elsewhere along the modem coast there is similarevidence. Where the evidence does relate to past human exploitation of the resources and the opportunities offered by the sea and the coast, it is both diverse and as yet little understood. We are not yet in a position to make even preliminary estimates of answers to such fundamental questions as the extent to which the sea and the coast affected human life in the past, what percentage of the population at any time lived within reach of the sea, or whether human settlements in coastal environments showed a distinct character from those inland.

F The most striking evidence for use of the sea is in the form of boats, yet we still have much to learn about their production and use. Most of the known wrecks around our coast are not unexpectedly of post-medieval date, and offer an unparalleled opportunity for research which has as yet been little used. The prehistoric sewn-plank boats such as those from the Humber estuary and Dover all seem to belong to the second millennium BC; after this there is a gap in the record of a millennium, which cannot yet be explained, before boats reappear, but built using a very different technology. Boatbuilding must have been an extremely important activity around much of our coast, yet we know almost nothing about it, Boats were some of the most complex artefacts produced by pre-modem societies, and further research on their production and use make an important contribution to our understanding of past attitudes to technology and technological change.

G Boats needed landing places, yet here again our knowledge is very patchy In many cases the natural shores and beaches would have sufficed, leaving little or no archaeological trace, but especially in later periods, many ports and harbors, as welJ as smaller facili- ties such as quays, wharves, and jetties, were built. Despite a growth of interest in the waterfront archaeology of some of our more important Roman and medieval towns, very little attention has been paid to the multitude of smaller landing places. Redevelopment of harbor sites and other development and natural pressures along the coast are subject- ing these important locations to unprecedented threats, yet few surveys of such sites have been undertaken.

H One of the most important revelations of recent research has been the extent ofindustrial activity along the coast. Fishing and salt production are among the better documented activities, but even here our knowledge is patchy Many forms of fishing will eave little archaeological trace, and one of the surprises of recent survey has been the extent of past investment in facilities for procuring fish and shellfish. Elaborate wooden fish weirs, often of considerable extent and responsive to aerial photography in shallow water, have been identified in areas such as Essex and the Severn estuary. The production of salt, especially in the late Iron Age and early Roman periods, has been recognized for some time, especially in the Thames estuary and around the Solent and Poole Harbor, but the reasons for the decline of that industry and the nature of later coastal salt working are much less well understood. Other industries were also located along the

coast, either because the raw materials outcropped there or for ease of working and transport: mineral resources such as sand, gravel, stone, coal, ironstone, and alum were all exploited. These industries are poorly documented, but their mains are sometimes extensive and striking.

I Some appreciation of the variety and importance of the archaeological remains preserved in the coastal zone, albeit only in preliminary form, can thus be gained from recent work, but the complexity of the problem of managing that resource is also being realised. The problem arises not only from the scale and variety of the archaeological remains, but also from two other sources: the very varied natural and human threats to the resource, and the complex web of organisations with authority over, or interests in, the coastal zone. Human threats include the redevelopment of historic towns and old dockland areas, and the increased importance of the coast for the leisure and tourism industries, resulting in pressure for the increased provision of facilities such as marinas. The larger size of ferries has also caused an increase in the damage caused by their wash to fragile deposits in the intertidal zone. The most significant natural threat is the predicted rise in sea level over the next century especially in the south and east of England. Its impact on archaeology is not easy to predict, and though it is likely to be highly localised, it will be at a scale much larger than that of most archaeological sites. Thus protecting one site may simply result in transposing the threat to a point further along the coast. The management of the archaeological remains will have to be considered in a much longer time scale and a much wider geographical scale than is common in the case of dry land sites, and this will pose a serious challenge for archaeologists.

Questions 1-3

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

Write your answers in boxes 1-3 on your answer sheet.

1.What has caused public interest in coastal archaeology in recent years?

A Golds and jewelleries in the ships that have submerged

B The rising awareness of climate change

C Forests under the sea

D Technological advance in the field of sea research

2. What does the passage say about the evidence of boats?

A We have a good knowledge of how boats were made and what boats were for prehistorically

B Most of the boats discovered were found in harbors

C The use of boats had not been recorded for a thousand years

D The way to build boats has remained unchanged throughout human history

3. What can be discovered from the air?

A Salt mines

B Shellfish

C Ironstones

D Fisheries

Questions 4-10

Do the following statements agree with the information given in Reading Passage 1? In boxes 4-10 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

4. England lost much of its land after the ice-age due to the rising sea level.

5. The coastline of England has changed periodically.

6. Coastal archaeological evidence may be well-protected by sea water.

7. The design of boats used by pre-modem people was very simple.

8. Similar boats were also discovered in many other European countries

9. There are few documents relating to mineral exploitation.

10. Large passenger boats are causing increasing damage to the seashore.

Questions 11-13

Choose THREE letters J-G Write your answer in boxes 11-13 on your answer sheet Which THREE of the following statements are mentioned in the passage?

A Our prehistoric ancestors adjusted to the environmental change caused by the rising sea level by moving to higher lands

B It is difficult to understand how many people lived close to the sea.

C Human settlements in coastal environment were different from those inland.

D Our knowledge of boat evidence is limited.

E The prehistoric boats were built mainly for collecting sand from the river.

F Human development threatens the archaeological remains.

G The reason for the decline of salt industry was the shortage of laborers.

SECTION 2

Activities for Children

A Twenty-five years ago, children in London walked to school and played in parks and playing fields after school and at the weekend. Today they are usually driven to school by parents anxious about safety and spend hours glued to television screens or computer games. Meanwhile, community playing fields are being sold off to property developers at an alarming rate. 'This change in lifestyle has, sadly, meant greater restrictions on children,' says Neil Armstrong, Professor of Health and Exercise Sciences at the University of Exeter. 'If children continue to be this inactive, they'll be storing up big problems for the future.'

B In 1985, Professor Armstrong headed a five-year research project into children's fitness. The results, published in 1990, were alarming. The survey, which monitored 700 11-16-year-olds, found that 48 per cent of girls and 41 per cent of boys already exceeded safe cholesterol levels set for children by the American Heart Foundation. Armstrong adds, "heart is a muscle and need exercise, or it loses its strength." It also found that 13 per cent of boys and 10 per cent of girls were overweight. More disturbingly, the survey found that over a four-day period, half the girls and one-third of the boys did less exercise than the equivalent of a brisk 10-minute walk. High levels of cholesterol, excess body fat and inactivity are believed to increase the risk of coronary heart disease.

C Physical education is under pressure in the UK – most schools devote little more than 100 minutes a week to it in curriculum time, which is less than many other European countries. Three European countries are giving children a head start in PE, France, Austria

and Switzerland – offer at least two hours in primary and secondary schools. These findings, from the European Union of Physical Education Associations, prompted specialists in children's physiology to call on European governments to give youngsters a daily PE programme. The survey shows that the UK ranks 13th out of the 25 countries, with Ireland bottom, averaging under an hour a week for PE. From age six to 18, British children received, on average, 106 minutes of PE a week. Professor Armstrong, who presented the findings at the meeting, noted that since the introduction of the national curriculum there had been a marked fall in the time devoted to PE in UK schools, with only a minority of pupils getting two hours a week.

D As a former junior football international, Professor Armstrong is a passionate advocate for sport. Although the Government has poured millions into beefing up sport in the community, there is less commitment to it as part of the crammed school curriculum. This means that many children never acquire the necessary skills to thrive in team games. If they are no good at them, they lose interest and establish an inactive pattern of behaviour. When this is coupled with a poor diet, it will lead inevitably to weight gain. Seventy per cent of British children give up all sport when they leave school, compared with only 20 per cent of French teenagers. Professor Armstrong believes that there is far too great an emphasis on team games at school. "We need to look at the time devoted to PE and balance it between individual and pair activities, such as aerobics and badminton, as well as team sports. "He added that children need to have the opportunity to take part in a wide variety of individual, partner and team sports.

E The good news, however, is that a few small companies and children's activity groups have reacted positively and creatively to the problem. Take That, shouts Gloria Thomas, striking a disco pose astride her mini-spacehopper. Take That, echo a flock of toddlers, adopting outrageous postures astride their space hoppers. 'Michael Jackson, she shouts, and they all do a spoof fan-crazed shriek. During the wild and chaotic hopper race across the studio floor, commands like this are issued and responded to with untrammelled glee. The sight of 15 bouncing seven-year-olds who seem about to launch into orbit at every bounce brings tears to the eyes. Uncoordinated, loud, excited and emotional, children provide raw comedy.

F Any cardiovascular exercise is a good option, and it doesn't necessarily have to be high intensity. It can be anything that gets your heart rate up: such as walking the dog, swimming, miming, skipping, hiking. "Even walking through the grocery store can be exercise," Samis-Smith said. What they don't know is that they're at a Fit Kids class, and that the fun is a disguise for the serious exercise plan they're covertly being taken through. Fit Kids trains parents to run fitness classes for children. 'Ninety per cent of children don't like team sports,' says company director, Gillian Gale.

G A Prevention survey found that children whose parents keep in shape are much more likely to have healthy body weights themselves. "There's nothing worse than telling a child what he needs to do and not doing it yourself," says Elizabeth Ward, R.D., a Boston

nutritional consultant and author of Healthy Foods, Healthy Kids . "Set a good example and get your nutritional house in order first." In the 1930s and '40s, kids expended 800 calories a day just walking, carrying water, and doing other chores, notes Fima Lifshitz, M.D., a pediatric endocrinologist in Santa Barbara. "Now, kids in obese families are expending only 200 calories a day in physical activity," says Lifshitz, "incorporate more movement in your family's lifepark farther away from the stores at the mall, take stairs instead of the elevator, and walk to nearby friends' houses instead of driving."

Questions 14 -17

The reading Passage has seven paragraphs A-G.

Which paragraph contains the following information?

Write the correct letter A-G, in boxes 14-17 on your answer sheet.

14. Health and living condition of children

15. Health organization monitored physical activity

16. Comparison of exercise time between UK and other countries

17. Wrong approach for school activity

Questions 18-21

Do the following statements agree with the information given in Reading Passage 2? In boxes 18-21 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

18. According to American Heart Foundation, cholesterol levels of boys are higher than girls'.

19. British children generally do less exercise than some other European countries.

20. Skipping becomes more and more popular in schools of UK.

21. According to Healthy Kids, the first task is for parents to encourage their children to keep the same healthy body weight.

Questions 22-26

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

Write your answers in boxes 22-26 on your answer sheet.

22. According to paragraph A, what does Professor Neil Armstrong concern about?

A Spending more time on TV affect academic level

B Parents have less time stay with their children

C Future health of British children

D Increasing speed of property's development

23. What does Armstrong indicate in Paragraph B?

A We need to take a 10 minute walk everyday

B We should do more activity to exercise heart

C Girls' situation is better than boys

D Exercise can cure many disease

24.What is aim of First Kids' trainning?

A Make profit by running several sessions

B Only concentrate on one activity for each child

C To guide parents how to organize activities for children

D Spread the idea that team sport is better

25. What did Lifshitz suggest in the end of this passage?

ACreate opportunities to exercise your body

B Taking elevator saves your time

C Kids should spend more than 200 calories each day

D We should never drive but walk

26. What is main idea of this passage?

A health of the children who are overweight is at risk in the future

B Children in UK need proper exercises

C Government mistaken approach for children

D Parents play the most important role in children's activity

SECTION 3

You should spend about 20 minutes on Questions 27-40, which are based on Reading Passage 3 on the following pages.

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 a 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 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 football.

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:kan] to ['ba:k3],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 imitation of children from adults[1] language sometimes are 29_____ , and may also contribute to this change if there are insignificant deviations tough 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 is true
FALSE	if the statement is false
NOT GIVEN	if the information is not given in the passage

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 white 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 can be influenced being pronounced as 'nf'

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

39. The pronunciation of [mt] changed to [nt]

40. The omit of ‘f in the sound of Christmas

ANSWER KEYS

1 B 2 C 3 D

4 TRUE 5 FALSE 6 TRUE

7 FALSE 8 NOT GIVEN 9 TRUE 10 TRUE

11 B 12 D 13 F

14 A 15 B 16 C 17 D

18 NOT GIVEN 19 TRUE

20 NOT GIVEN 21 FALSE

22 C 23 B 24 C 25 A 26 B

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

TEST 7

SECTION 1

California's age of Megafires

A There's a reason fire squads now battling more than a dozen blazes in southern California are having such difficulty containing the flames, despite better preparedness than ever and decades of experience fighting fires fanned by the notorious Santa Ana winds. The wildfires themselves, experts say, generally are hotter, move faster, and spread more erratically than in the past.

B The short-term explanation is that the region, which usually has dry summers, has had nine inches less rain than normal this year. Longer term, climate change across the West is leading to hotter days on average and longer fire seasons. Experts say this is likely to yield more megafires like the conflagrations that this week forced evacuations of at least 300,000 resident in California's southland and led President Bush to declare a disaster emergency in seven counties on Tuesday.

C Megafires, also called "siege fires," are the increasingly frequent blazes that bum 500,000 acres or more – 10 times the size of the average forest fire of 20 years ago. One of the current wildfires is the sixth biggest in California ever, in terms of acreage burned, according to state figures and news reports. The trend to more superhot fires, experts say, has been driven by a century-long policy of the US Forest Service to stop wildfires as quickly as possible. The unintentional consequence was to halt the natural eradication of underbrush, now the primary fuel for megafires. Three other factors contribute to the trend, they add. First is climate change marked by a 1 -degree F. rise in average yearly temperature across the West. Second is a fire season that on average is 78 days longer than in the late 1980s. Third is increased building of homes and other structures in wooded areas.

D "We are increasingly building our homes ... in fire-prone ecosystems," says Dominik Kulakowski, adjunct professor of biology at Clark University Graduate School of Geography in Worcester, Mass. Doing that "in many of the forests of the Western US ... is like building homes on the side of an active volcano." In California, where population growth has averaged more than 600,000 a year for at least a decade, housing has pushed into such areas. "What once was open space is now residential homes providing fuel to make fires bum with greater intensity," says Terry McHale of the California Department of Forestry firefighters union. "With so much dryness, so many communities to catch fire, so many fronts to fight, it becomes an almost incredible job."

E That said, many experts give California high marks for making progress on preparedness since 2003, when the largest fires in state history scorched 750,000 acres, burned 3,640 homes, and killed 22 people. Stung then by criticism of bungling that allowed fires to spread when they might have been contained, personnel are meeting the peculiar challenges of neighborhood- and canyon-hopping fires better than in recent years, observers say.

F State promises to provide newer engines, planes, and helicopters have been fulfilled. Firefighters unions that then complained of dilapidated equipment, old fire engines, and insufficient blueprints for fire safety are now praising the state's commitment, noting that funding for firefighting has increased despite huge cuts in many other programs. "We are pleased that the Schwarzenegger administration has been very proactive in its support of us and come through with budgetary support of the infrastructure needs we have long sought," says Mr. McHale with the firefighters union.

G Besides providing money to upgrade the fire engines that must traverse the mammoth state and wind along serpentine canyon roads, the state has invested in better command-and-control facilities as well as the strategies to run them. "In the fire sieges of earlier years, we found out that we had the willingness of mutual-aid help from other jurisdictions and states, but we were not able to communicate adequately with them," says Kim Zagaris, chief of the state's Office of Emergency Services, fire and rescue branch. After a 2004 blue-ribbon commission examined and revamped those procedures, the statewide response "has become far more professional and responsive," he says.

H Besides ordering the California National Guard on Monday to make 1,500 guardsmen available for firefighting efforts, Gov. Arnold Schwarzenegger asked the Pentagon to send all available Modular Airborne Fighting Systems to the area. The military Lockheed C- 130 cargo/utility aircraft carry a pressurized 3,000-gallon tank that can eject fire retardant or water in fewer than five seconds through two tubes at the rear of the plane. This load can cover an area 1/4- mile long and 60 feet wide to create a fire barrier. Governor Schwarzenegger also directed 2,300 inmate firefighters and 170 custody staff from the California Department of Corrections and Rehabilitation to work hand in hand with state and local firefighters.

I Residents and government officials alike are noting the improvements with gratitude, even amid the loss of homes, churches, businesses, and farms. By Tuesday morning, the fires had burned 1,200 homes and businesses and set 245,957 acres — 384 square miles — ablaze. Despite such losses, there is a sense that he speed, dedication, and coordination of firefighters from several states and jurisdictions are resulting in greater efficiency than in past "siege fire" situations.

J "I am extraordinarily impressed by the improvements we have witnessed between the last big fire and this," says Ross Simmons, a San Diego-based lawyer who had to evacuate both his home and business on Monday, taking up residence at a Hampton Inn 30 miles south of his home in Rancho Bernardo. After fires consumed 172,000 acres there in 2003, the San Diego region turned communitywide soul-searching into improved building codes, evacuation procedures, and procurement of new technology. Mr. Simmons and neighbors began receiving automated phone calls at 3:30 a.m. Monday morning telling them to evacuate. "Nothwithstanding all the damage that will be caused by this, we will not come close to the loss of life because of what we have … put in place since then," he says.

Questions 1-6

Sumary

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 1-6 on your answer sheet.

Experts point out that blazes in California are having more heat, faster speed and they _____ **1**_____ more unpredictably compared with former ones. One explanation is that California's summer is dry,_____ **2**____ is below the average point. Another long term explanation is that hotter and longer potential days occur due to _____ **3**_____ . Nowadays, Megafires burn _____ **4**_____ the size of forest area caused by an ordinary fire of 20 years ago. The serious trend is mainly caused by well-grown underbrush, which provides _____ **5**_____ for the siege fires. Other contributors are climate change and extended_____ **6**_____**.**

Questions 7-9

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

Write your answers in boxes 7-9 on your answer sheet.

7. What is expert's attitude towards California's performance after 2003 megafire?

A They could have done better

B Blamed them on casualties

C Improvement made on preparation

D Serious criticism

8. According to Governor Schwarzenegger, which one is CORRECT about his effort for firefighting?

A Schwarzenegger requested successfully for military weapons

B Schwarzenegger led many prison management staff to work together with local fire fighters

C Schwarzenegger acted negatively in recent megafire in California

D Schwarzenegger ordered 1,500 office clerks to join firefighting scene.

9. What happened to Ross Simmon on the day of megafire break out?

A He was sleeping till morning

B He was doing business at Hampton Inn

C He suffered employee death on that morning

D He was alarmed by machine calls

Questions 10-13

Do the following statements agree with the information given in Reading Passage 1? In boxes 10-13 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

10. The area of open space in California has declined during the past decade.

11. Fire squad wants to recruit more firefighters this year.

12. Firefighters union declared that firefighters have had more improved and supportive facility by the local government.

13. Before the year of 2004, well coordination and communication between California and other states already existed in fire siege.

SECTION 2

European Heat Wave

A It was the summer, scientists now realise, when felt. We knew that summer 2003 was remarkable: global warming at last made itself unmistakably Britain experienced its record high temperature and continental Europe saw forest fires raging out of control, great rivers drying of a trickle and thousands of heat-related deaths. But just how remarkable is only now becoming clean

B The three months of June, July and August were the warmest ever recorded in western and central Europe, with record national highs in Portugal, Germany and Switzerland as well as Britain. And they were the warmest by a very long way Over a great rectangular block of the earth stretching from west of Paris to northern Italy, taking in Switzerland and southern Germany, the average temperature for the summer months was 3.78°C

above the long-term norm, said the Climatic Research Unit (CRU) of the University of East Anglia in Norwich, which is one of the world's lending institutions for the monitoring and analysis of temperature records.

C That excess might not seem a lot until you are aware of the context – but then you realise it is enormous. There is nothing like this in previous data, anywhere. It is considered so exceptional that Professor Phil Jones, the CRU's director, is prepared to say openly – in a way few scientists have done before – that the 2003 extreme may be directly attributed, not to natural climate variability, but to global wanning caused by human actions.

D Meteorologists have hitherto contented themselves with the formula that recent high temperatures are consistent with predictions" of climate change. For the great block of the map — that stretching between 3 5-5 ON and 0-20E – the CRU has reliable temperature records dating back to 1781. Using as a baseline the average summer temperature recorded between 1961 and1990, departures from the temperature norm, or "anomalies': over the area as a whole can easily be plotted. As the graph shows, such is the variability of our climate that over the past 200 years, there have been at least half a dozen anomalies, in terms of excess temperature – the peaks on the graph denoting very hot years – approaching, or even exceeding, 20 °C. But there has been nothing remotely like 2003, when the anomaly is nearly four degrees.

E "This is quite remarkable," Professor Jones told The Independent. "It's very unusual in a statistical sense. If this series had a normal statistical distribution, you wouldn't get this number. There turn period "how often it could be expected to recur" would be something like one in a thou-sand years. If we look at an excess above the average of nearly four degrees, then perhaps nearly three degrees of that is natural variability, because we've seen that in past summers. But the final degree of it is likely to be due to global warming, caused by human actions.

F The summer of 2003 has, in a sense, been one that climate scientists have long been expecting. Until now, the warming has been manifesting itself mainly in winters that have been less cold than in summers that have been much hotter. Last week, the United Nations predicted that winters were warming so quickly that winter sports would die out in Europe's lower-level ski resorts. But sooner or later the unprecedented hot summer was bound to come, and this year it did.

G One of the most dramatic features of the summer was the hot nights, especially in the first half of August. In Paris, the temperature never dropped below 230°C (73.40°F) at all between 7 and 14 August, and the city recorded its warmest-ever night on 11-12 August, when the mercury did not drop below 25.50°C (77.90°F). Germany recorded its warmest-ever night at Weinbiet in the Rhine valley with a lowest figure of 27.60°C (80.60°F) on 13 August, and similar record-breaking night-time temperatures were recorded in Switzerland and Italy.

H The 15,000 excess deaths in France during August, compared with previous years, have been related to the high night-time temperatures. The number gradually increased during the first 12days of the month, peaking at about 2,000 per day on the night of 12-13 August, then fell off dramatically after 14 August when the minimum temperatures fell by about 50C. The elderly were most affected, with a 70 per cent increase in mortality rate in those aged 75-94.

I For Britain, the year as a whole is likely to be the warmest ever recorded, but despite the high temperature record on 10 August, the summer itself – defined as the June, July and August period – still comes behind 1976 and 1995, when there were longer periods of intense heat. At the moment, the year is on course to be the third-hottest ever in the global temperature record, which goes back to 1856, behind 1998 and 2002 but when all the records for October, November and December are collated, it might move into second place, Professor Jones said. The 10 hottest years in the record have all now occurred since 1990. Professor Jones is in no doubt about the astonishing nature of European summer of 2003."The temperatures recorded were out of all proportion to the previous record," he said. "It was the warmest summer in the past 500 years and probably way beyond that It was enormously exceptional."

J His colleagues at the University of East Anglia's Tyndall Centre for Climate Change Research are now planning a special study of it. "It was a summer that has not: been experienced before, either in terms of the temperature extremes that were reached, or the range and diversity of the impacts of the extreme heat," said the centre's executive director, Professor Mike Hulme. "It will certainly have left its mark on a number of countries, as to how they think and plan for climate change in the future, much as the 2000 floods have revolutionised the way the Government is thinking about flooding in the UK. "The 2003 heat wave will have similar repercussions across Europe."

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 *if the statement is true*

FALSE *if the statement is false*

NOT GIVEN *if the information is not given in the passage*

14. The average summer temperature in 2003 is approximately four degrees higher than that of the past.

15. Jones believes the temperature statistic is within the normal range.

16. Human factor is one of the reasons that caused hot summer.

17. In large city, people usually measure temperature twice a day.

18. Global warming has obvious effect of warmer winter instead of hotter summer before 2003.

19. New ski resorts are to be built on a high-altitude spot.

Questions 20-21

Answer the questions below using NO MORE THAN THREE WORDS AND/OR NUMBERS from the passage for each answer. Write your answers in boxes 20-21 on your answer sheet

20. What are the two hottest years in Britain besides 2003?

21. What will affect UK government policies besides climate change according to Hulme?

Questions 22-26

Complete the summary below using NO MORE THAN TWO WORDS from the passage. Write your answers in boxes 22-26 On your answer sheet

In the summer of 2003, thousands of extra death occurred in the country of_____ **22**_____ . Moreover, world-widely, the third record of hottest summer date from _____ **23**_____ , after the year of _____ **24**_____ . According to Jones, all the 10 hottest years happened from _____ **25**_____ . However, summer of 2003 was at the peak of previous _____ **26**_____ years, perhaps even more.

Question 27

Choose the correct letter A, B, C or D

Write your answer in box 27 on your answer sheet

27. Which one can be best served as the title of this passage in the following options?

A Global Warming effect

B Global Warming in Europe

C The Effects of hot temperature

D Hottest summer in Europe

SECTION 3

The concept of childhood in the western countries

The history of childhood has been a topic of interest in social history since the highly influential 1960 book Centuries of Childhood, written by French historian Philippe Aries. He argued that "childhood" is a concept created by modern society.

A One of the most hotly debated issues in the history of childhood has been whether childhood is itself a recent invention. The historian Philippe Aries argued that in Western Europe during the Middle Ages (up to about the end of the fifteenth century) children were regarded as miniature adults, with all the intellect and personality that this implies. He scrutinized medieval pictures and diaries, and found no distinction between children and adults as they shared similar leisure activities and often the same type of work. Aries, however, pointed out that this is not to suggest that children were neglected, forsaken or despised. The idea of childhood is not to be confused with affection for children; it corresponds to an awareness of the particular nature of childhood, that particular nature which distinguishes the child from the adult, even the young adult.

B There is a long tradition of the children of the poor playing a functional role in contributing to the family income by working either inside or outside the home. In this sense children are seen as 'useful. Back in the Middle Ages, children as young as 5 or 6 did important chores for their parents and, from the sixteenth century, were often encouraged (or forced) to leave the family by the age of 9 or 10 to work as servants for wealthier families or to be apprenticed to a trade.

C With industrialization in the eighteenth and nineteenth centuries, a new demand for child labour was created, and many children were forced to work for long hours, in mines, workshops and factories. Social reformers began to question whether labouring long hours from an early age would harm children's growing bodies. They began to recognize the potential of carrying out systematic studies to monitor how far these early deprivations might be affecting children's development.

D Gradually, the concerns of the reformers began to impact on the working conditions of children. In Britain, the Factory Act of 1833 signified the beginning of legal protection of children from exploitation and was linked to the rise of schools for factory children. The worst forms of child exploitation were gradually eliminated, partly through factory reform but also through the influence of trade unions and economic changes during the nineteenth century which made some forms of child labour redundant. Childhood was increasingly seen as a time for play and education for all children, not just for a privileged minority. Initiating children into work as 'useful' children became less of a priority. As the age for starting full-time work was delayed, so childhood was increasingly understood as

a more extended phase of dependency, development and learning. Even so, work continued to play a significant, if less central role in children's lives throughout the later nineteenth and twentieth century. And the 'useful child, has become a controversial image during the first decade of the twenty-first century especially in the context of global concern about large numbers of the world's children engaged in child labour .

E The Factory Act of 1833 established half-time schools which allowed children to work and attend school. But in the 1840s, a large proportion of children never went to school, and if they did, they left by the age of 10 or11. The situation was very different by the end of the nineteenth century in Britain. The school became central to images of[7]a normal childhood .

F Attending school was no longer a privilege and all children were expected to spend a significant part of their day in a classroom. By going to school, children's lives were now separated from domestic life at home and from the adult world of work. School became an institution dedicated to shaping the minds, behaviour and morals of the young. Education dominated the management of children's waking hours, not just through the hours spent in classrooms but through /home/ work, the growth of after school[7] activities and the importance attached to 'parental involvement.

GIndustrialization, urbanization and mass schooling also set new challenges for those responsible for protecting children's welfare, and promoting their learning. Increasingly, children were being treated as a group with distinctive needs and they were organized into groups according to their age. For example, teachers needed to know what to expect of children in their classrooms, what kinds of instruction were appropriate for different age groups and how best to assess children's progress. They also wanted tools that could enable them to sort and select children according to their abilities and potential.

Questions 28-34

Do the following statements agree with the information given in Reading Passage 3? Write your answers in boxes 28-34 on your answer sheet.

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

28. Aries pointed out that children did different types of work as adults during the Middle Age.

29. During the Middle Age, going to work necessarily means children were unloved indicated by Aries.

30. Scientists think that overworked labour damages the health of young children

31. the rise of trade union majorly contributed to the protection children from exploitation in 19th century

32. By the aid of half-time schools, most children went to school in the mid of 19 century.

33. In 20 century almost all children need to go to school in full time schedule.

34. Nowadays, children's needs were much differentiated and categorised based on how old they are

Questions 35-40

Answer the questions below.

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

Write your answers in boxes 35-40 on your answer sheet.

35. what is the controversial topic arises with the French historian Philippe Aries's concept

36. what image for children did Aries believed to be like in Western Europe during the Middle Ages

37. what historical event generated the need for great amount child labour to work long time in 18 and 19 century

38. what legal format initiated the protection of children from exploitation in 19th centenary

39. what the activities were more and more regarded as being preferable for almost all children time in 19th centenary

40. where has been the central area for children to spend largely of their day as people's expectation in modern society

ANSWER KEYS

1 Spread 2 Rain/ rainfall 9 Climate change
4 10 times 5 Primary fuel 6 Fire season
7 C 8 B 9 D
10 TRUE 11 NOT GIVEN 12 TRUE 13 FALSE

14 True 15 False 16 True
17 Not Given 18 True 19 Not Given
20 1976 and 1995 21 2000 floods 22 France
23 1956 24 1998 and 2002 25 1990 26 500 27 D

28 FALSE 29 TRUE 30 TRUE
31 NOT GIVEN 32 FALSE 33 NOT GIVEN 34 TRUE

35 History of childhood 36 (as) miniature adults
37 (with the) industrialization 38 The factory Act

39 Play and education 40 Classroom

TEST 8

SECTION 1

You should spend about 20 minutes on Questions 14-25, which are based on Reading Passage 2 below

Ancient Chinese Chariots

A The Shang Dynasty or Yin Dynasty, according to traditional historiography, ruled in the Yellow River valley in the second millennium Archaeological work at the Ruins of Yin (near modern-day Anyang), which has been identified as the last Shang capital, uncovered eleven major Yin royal tombs and the foundations of palaces and ritual sites, containing weapons of war and remains from both animal and human sacrifices.

B The Tomb of Fu Hao is an archaeological site at Yinxu, the ruins of the ancient Shang Dynasty capital Yin, within the modem city of Anyang in Henan Province, China. Discovered in 1976, it was identified as the final resting place of the queen and military general Fu Hao. The artifacts unearthed within the grave included jade objects, bone objects, bronze objects etc. These grave goods are confirmed by the oracle texts, which constitute almost all of the first hand written record we possess of the Shang Dynasty. Below the corpse was a small pit holding the remains of six sacrificial dogs and along the edge lay the skeletons of human slaves, evidence of human sacrifice.

C The Terracotta Army was discovered on 29 March 1974 to the east of Xi'an in Shaanxi. The terracotta soldiers were accidentally discovered when a group of local farmers was digging a well during a drought around 1.6 km (I mile) east of the Qin Emperors tomb around at Mount Li (Lishan), a region riddled with underground springs and watercourses. Experts currently place the entire number of soldiers at 8,000 — with 130 chariots (130 cm long), 530 horses and 150 cavalry horses helping to ward of any dangers in the afterlife. In contrast, the burial of Tutank hamun yielded six complete but dismantled chariots of unparalleled richness and sophistication. Each was designed for two people (90 cm long) and had its axle sawn through to enable it to be brought along the narrow corridor into the tomb.

D Excavation of ancient Chinese chariots has confirmed the descriptions of them in the earliest texts. Wheels were constructed from a variety of woods: elm provided the hub, rose-wood the spokes and oak the felloes. The hub was drilled through to form an empty space into which the tampering axle was fitted, the whole being covered with leather to retain lubricating oil. Though the number of spokes varied, a wheel by the fourth century BC usually had eighteen to thirty-two of them. Records show how elaborate was the testing of each completed wheel: flotation and weighing were regarded as the best measures of balance, but even the empty spaces in the assembly were checked with millet grains. One outstanding constructional asset of the ancient Chinese wheel was

dishing. Dishing refers to the dishlike shape of an advanced wooden wheel, which looks rather like a flat cone. On occasion they chose to strengthen a dished wheel with a pair of struts running from rim to rim on each of the hub. As these extra supports were inserted separately into the felloes, they would have added even greater strength to the wheel. Leather wrapped up the edge of the wheel aimed to retain bronze.

E Within a millennium, however, Chinese chariot-makers had developed a vehicle with shafts, the precursor of the true carriage or cart. This design did not make its appearance in Europe until the end of the Roman Empire. Because the shafts curved upwards, and the harness pressed against a horse's shoulders, not his neck, the shaft chariot was incredibly efficient. The halberd was also part of chariot standard weaponry. This halberd usually measured well over 3 metres in length, which meant that a chariot warrior wielding it sideways could strike down the charioteer in a passing chariot. The speed of chariot which was tested on the sand was quite fast. At speed these passes were very dangerous for the crews of both chariots.

F The advantages offered by the new chariots were not entirely missed. They could see how there were literally the warring states, whose conflicts lasted down the Qin unification of China. Qin Shi Huang was buried in the most opulent tomb complex ever constructed in China, a sprawling, city-size collection of underground caverns containing everything the emperor would need for the afterlife. Even a collection of terracotta armies called Terra- Cotta Warriors was buried in it. The ancient Chinese, along with many cultures including ancient Egyptians, believed that items and even people buried with a person could be taken with him to the afterlife

Questions 1-4

Do the following statements agree with the information given in Reading Passage 1? In boxes 1-4 on you answer sheet, write

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

1. when discovered, the written records of the grave goods proved to be accurate.

2. Human skeletons in Anyang tomb were identified ad soldiers who were killed in the war.

3. The Terracotta Army was discovered by people lived nearby by chance.

4. The size of the King Tutankhamen's tomb is bigger than that of in Qin Emperors' tomb.

Questions 5-10

Complete the notes below.

Choose ONE WORD from the passage for each answer. Write your answers in boxes 5-10 on your answer sheet

5. The hub is made wood from the tree of.....

6. The room through the hub was to put tempering axle in which is wrapped up by leather aiming to retain.....

7. The number of spokes varied from.....to .....

8. The shape of wheel resembles a.....

9. Two was used to strengthen the wheel.....

10. Leather wrapped up the edge of the wheel aimed to remain.....

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 body part of horse was released the pressure from to the shoulder

12. what kind road surface did the researchers measure the speed of the chariot ?

13. What part of his afterlife palace was the Emperor Qin Shi Huang buried?

SECTION 2

Saving the British Bitterns

A Breeding bitterns became extinct in the UK by 1886 but, following re-colonisation early last century, numbers rose to a peak of about 70 booming (singing) males in the 1950s, falling to fewer than 20 by the 1990s. In the late 1980s it was clear that the bittern was in trouble, but there was little information on which to base recovery actions.

B Bitterns have cryptic plumage and a shy nature, usually remaining hidden within the cover of reedbed vegetation. Our first challenge was to develop standard methods to monitor their numbers. The boom of the male bittern is its most distinctive feature during the breeding season, and we developed a method to count them using the sound patterns unique to each individual. This not only allows us to be much more certain of the number of booming males in the UK, but also enables us to estimate local survival of males from one year to the next

C Our first direct understanding of the habitat needs of breeding bitterns came from comparisons of reedbedsites that had lost their booming birds with those that retained them. This research showed that bitterns had been retained in reedbeds where the natural process of succession, or drying out, had been slowed through management. Based on this work, broad recommendations on how to manage and **rehabilitate** reedbeds for bitterns were made, and funding was provided through the EU LIFE Fund to manage 13 sites within the core breeding range. This project, though led by the RSPB, involved many other organisations.

D To refine these recommendations and provide fine-scale, quantitative habitat prescriptions on the bitterns[7] preferred feeding habitat, we radio-tracked male bitterns on the RSPB's Minsmere and Leighton Moss reserves. This showed clear preferences for feeding in the wetter reedbed margins, particularly within the reedbed next to larger open pools. The average home range sizes of the male bitterns we followed (about 20 hectares) provided a good indication of the area of reedbed needed when managing or creating habitat for this species. Female bitterns undertake all the incubation and care of the young, so it was important to understand their needs as well. Over the course of our research, we located 87 bittern nests and found that female bitterns preferred to nest in areas of continuous vegetation, well into the reedbed, but where water was still present during the driest part of the breeding season.

E The success of the habitat prescriptions developed from this research has been spectacular. For instance, at Minsmere, booming bittern numbers gradually increased from one to 10 following reedbed lowering, a management technique designed to halt the drying out process. After a low point of 11 booming males in 1997, bittern numbers in Britain responded to all the habitat management work and started to increase for the first time since the 1950s.

F The final phase of research involved understanding the diet, survival and dispersal of bittern chicks. To do this we fitted small radio tags to young bittern chicks in the nest, to determine their fate through to fledgingand beyond. Many chicks did not survive to fledging and starvation was found to be the most likely reason for their demise. The fish prey fed to chicks was dominated by those species penetrating into the reed edge. So, an important element of recent studies (including a PhD with the University of Hull) has

been the development of recommendations on habitat and water conditions to promote healthy native fish populations

G Once independent, radio-tagged young bitterns were found to seek out new sites during their first winter; a proportion of these would remain on new sites to breed if the conditions were suitable. A second EU LIFE funded project aims to provide these suitable sites in new areas. A network of 19 sites developed through this partnership project will secure a more sustainable UK bittern population with successful breeding outside of the core area, less vulnerable to chance events and sea level rise.

H By 2004, the number of booming male bitterns in the UK had increased to 55, with almost all of the increase being on those sites undertaking management based on advice derived from our research. Although science has been at the core of the bittern story, success has only been achieved through the trust, hard work and dedication of all the managers, owners and wardens of sites that have implemented, in some cases very drastic, management to secure the future of this wetland species in the UK. The constructed bunds and five major sluices now control the water level over 82 ha, with a further 50 ha coming under control in the winter of 2005/06. Reed establishment has principally used natural regeneration or planted seedlings to provide small core areas that will in time expand to create a bigger reed area. To date nearly 275,000 seedlings have been planted and reed cover is extensive. Over 3 km of new ditches have been formed, 3.7 km of existing ditch have been re-profiled and 2.2 km of old meander (former estuarine features) has been cleaned out.

I Bitterns now regularly winter on the site some indication that they are staying longer into the spring. No breeding has yet occurred but a booming male was present in the spring of 2004. A range of wildfowl breed, as well as a good number of reedbed passerines including reed bunting, reed, sedge and grasshopper warblers. Numbers of wintering shoveler have increased so that the site now holds a UK important wintering population. Malltraeth Reserve now forms part of the UK network of key sites for water vole (a UK priority species) and 12 monitoring transects has been established. Otter and brown-hare occur on the site as does the rare plant. Pillwort.

Questions 14-20

The reading passage has seven paragraphs, A-H

Choose the correct heading for paragraphs A-Hfrom the list below. Write the correct number, i-viii, in boxes 14-20 on your answer sheet.

List of Headings

i.	research findings into habitats and decisions mad
ii.	fluctuation in bittern number
iii.	protect the young bittern
iv.	international cooperation works
v.	Began in calculation of the number
vi.	importance of food
vii.	Research has been successful.
viii.	research into the reedbed
ix.	reserve established holding bittern in winter

14. Paragraph A

15. Paragraph B

16. Paragraph C

17. Paragraph D

18. Paragraph F

19. Paragraph G

20. Paragraph H

Example Paragraph E vii

Questions 21-26

Answer the questions below.

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

21. When did the bird of bitten reach its peak of number?

22. What does the author describe the bittern's character?

23. What is the main cause for the chick bittern's death?

24. What is the main food for chick bittern?

25. What system does it secure the stability for bittern's population?

26. Besides bittern and rare vegetation, what mammal does the plan benefit?

Questions 27

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

Write your answers in boxes 27 on your answer sheet.

27. What is the main purpose of this passage?

A Main characteristic of a bird called bittern.

B Cooperation can protect an endangered species.

C The difficulty of access information of bittern's habitat and diet.

D To save wetland and reedbed in UK.

SECTION 3

E-training

A E-learning is the unifying term to describe the fields of online learning, web-based training, and technology-delivered instruction, which can be a great benefit to corporate e-learning. IBM, for instance, claims that the institution of its e-training program, Basic Blue, whose purpose is to train new managers, saved the company in the range of $200 million in 1999. Cutting the travel expenses required to bring employees and instructors to a central classroom accounts for the lion's share of the savings. With an online course, employees can learn from any Internet-connected PC, anywhere in the world. Ernst and Young reduced training costs by 35 percent while improving consistency and scalability.

B In addition to generally positive economic benefits, other advantages such as convenience, standardized delivery, self-paced learning, and variety of available content, have made e-learning a high priority for many corporations. E-learning is widely believed to offer flexible "any time, any place" learning. The claim for "any place" is valid in principle and is a great development. Many people can engage with rich learning materials that simply were not possible in a paper or broadcast distance learning era. For teaching specific information and skills, e-training holds great promise. It can be especially effective at helping employees prepare for IT certification programs. E-learning also seems to effectively address topics such as sexual harassment education,5 safety training and management training — all areas where a clear set of objectives can be identified. Ultimately, training experts recommend a "blended" approach that combines both online and in-person training as the instruction requires. E-learning is not an end-all solution. But if it helps decrease costs and windowless classrooms filled with snoring students, it definitely has its advantages.

C Much of the discussion about implementing e-learning has focused on the technology, but as Driscoll and others have reminded us, e-learning is not just about the technology, but also many human factors. As any capable manager knows, teaching employees new skills is critical to a smoothly run business. Having said that, however, the traditional route of classroom instruction runs the risk of being expensive, slow and, often times, ineffective. Perhaps the classroom's greatest disadvantage is the fact that it takes employees out of their jobs. Every minute an employee is sitting in a classroom training session is a minute they're not out on the floor working. It now looks as if there is a way to circumvent these traditional training drawbacks. E-training promises more effective teaching techniques by integrating audio, video, animation, text and interactive materials with the intent of teaching each student at his or her own pace. In addition to higher performance results, there are other immediate benefits to students such as increased time on task, higher levels of motivation, and reduced test anxiety for many learners. A California State University Northridge study reported that e-learners performed 20 percent better than traditional learners. Nelson reported a significant difference between the mean grades of 406 university students earned in traditional and distance education classes, where the distance learners outperformed the traditional learners.

D On the other hand, nobody said E-training technology would be cheap. E-training service providers, on the average, charge from $10,000 to $60,000 to develop one hour of online instruction. This price varies depending on the complexity of the training topic and the media used. HTML pages are a little cheaper to develop while streaming-video (presentations or flash animations cost more. Course content is just the starting place for cost. A complete e-learning solution also includes the technology platform (the computers, applications and network connections that are used to deliver the courses). This technology platform, known as a learning management system (LMS), can either be installed onsite or outsourced. Add to that cost the necessary investments in network

bandwidth to deliver multimedia courses, and you're left holding one heck of a bill. For the LMS infrastructure and a dozen or so online courses, costs can top $500,000 in the first year. These kinds of costs mean that custom e-training is, for the time being, an option only for large organizations. For those companies that have a large enough staff, the e-training concept pays for itself. Aware of this fact, large companies are investing heavily in online training. Today, over half of the 400-plus courses that Rockwell Collins offers are delivered instantly to its clients in an e-leaming format, a change that has reduced its annual (training costs by 40%. Many other success stories exist.

E E-learning isn[7]1 expected to replace the classroom entirely. For one thing, bandwidth limitations are still an issue in presenting multimedia over the Internet. Furthermore, e-training isn,t suited to every mode of instruction or topic. For instance, it's rather ineffective imparting cultural values or building teams. If your company has a unique corporate culture it would be difficult to convey that to first time employees through a computer monitor. Group training sessions are more ideal for these purposes. In addition, there is a perceived loss of research time because of the work involved in developing and teaching online classes. Professor Wallin estimated that it required between 500 and 1,000 person-hours, that is, Wallin-hours, to keep the course at the appropriate level of currency and usefulness. (Distance learning instructors often need technical skills, no matter how advanced the courseware system.) That amounts to between a quarter and half of a person-year. Finally, teaching materials require computer literacy and access to equipment. Any e-Learning system involves basic equipment and a minimum level of computer knowledge in order to perform the tasks required by the system. A student that does not possess these skills, or have access to these tools, cannot succeed in an e-Learning program.

F While few people debate the obvious advantages of e-learning, systematic research is needed to confirm that learners are actually acquiring and using the skills that are being taught online, and that e-learning is the best way to achieve the outcomes in a corporate environment. Nowadays, a go-between style of the Blended learning, which refers to a mixing of different learning environments, is gaining popularity. It combines traditional face-to-face classroom methods with more modem computer-mediated activities. According to its proponents, the strategy creates a more integrated approach for both instructors and learners. Formerly, technology-based materials played a supporting role to face-to-face instruction. Through a blended learning approach, technology will be more important

Questions 28-33

The reading passage has seven paragraphs, A-F. Choose the correct heading for paragraphs A-F from the list below. Write the correct number, i-xi in boxes 28-33 on your answer sheet.

	List of Headings
i	overview of the benefits for the application of E-training
ii	IBM's successful choice of training
iii	Future direction and a new style of teaching
iv	learners[7] achievement and advanced teaching materials
v	limitations when E-training compares with traditional class
vi	multimedia over the Internet can be a solution
vii	technology can be a huge financial burden
viii	the distance learners outperformed the traditional university learners in worldwide
ix	other advantages besides economic consideration
x	Training offered to help people learn using computers

28. Paragraph A

29. Paragraph B

30. Paragraph C

31. Paragraph D

32. Paragraph E

33. Paragraph F

Questions 34-37

The reading Passage has seven paragraphs A-F.

Which paragraph contains the following information?

Write the correct letter A-F, in boxes 35-37 on your answer sheet.

34. Projected Basic Blue in IBM achieved a great success.

35. E-learning wins as a priority for many corporations as its flexibility.

36. The combination of the traditional and e-training environments may prevail.

37. Example of a fast electronic delivery for a company's products to its customers.

Questions 38-40

Choose Three correct letters, among A-E

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

A Technical facilities are hardly obtained.

B Presenting multimedia over the Internet is restricted due to the bandwidth limit.

C It is ineffective imparting a unique corporate value to fresh employees.

D Employees need block a long time leaving their position attending training.

E More preparation time is needed to keep the course at the suitable level.

ANSWER KEYS

1 TRUE 8 FALSE 3 TRUE 4 NOT GIVEN

5 Elm 6 Lubricating oil
7 Dish 8 18 – 32 9 Struts
10 Bronze 11 Neck 12 Sand
13 Tomb complex

14 ii 15 v 16 i 17 viii 18 vi 19 iii 20 iv

21 1950s 22 (being) shy/ shyness
23 Starvation 24 Native(fish)

25 Partnership project/ network(of sites)/ partnership project network
26 Otter and brown – hare 27 B

28 i 29 ix 30 iv
31 vii 32 V 33 iii
34 A 35 B 36 F
37 D 38 B 39 C 40 E

TEST 9

SECTION 1

SOSUS : Listening to the Ocean

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

B Curious investigators long have been fascinated by sound and the way it travels in water. As early as 1490, Leonardo da Vinci observed: "If you cause your ship to stop and place the head of a long tube in the water and place the outer extremity to your ear, you will hear ships at a great distance from you." In 1687, the first mathematical theory of sound propagation was published by Sir Isaac Newton in his Philosophiae Naturalis Principia Mathematica, Investigators were measuring the speed of sound in air beginning in the mid seventeenth century, but it was not until 1826 that Daniel Colladon, a Swiss physicist, and Charles Sturm, a French mathematician, accurately measured its speed in water. Using a long tube to listen underwater (as da Vinci had suggested), they recorded how fast the sound of a submerged bell traveled across Lake Geneva. Their result-1,435 meters (1,569 yards) per second in water of 1.8 degrees Celsius (35 degrees Fahrenheit)- was only 3 meters per second off from the speed accepted today. What these investigators demonstrated was that water – whether fresh or salt- is an excellent medium for sound, transmitting it almost five times faster than its speed in air

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

D A number of factors influence how far sound travels underwater and how long it lasts. For one, particles in seawater can reflect, scatter, and absorb certain frequencies of sound – just as certain wavelengths of light may be reflected, scattered, and absorbed by specific

types of particles in the atmosphere. Seawater absorbs 30 times the amount of sound absorbed by distilled water, with specific chemicals (such as magnesium sulfate and boric acid) damping out certain frequencies of sound. Researchers also learned that low frequency sounds, whose long wavelengths generally pass over tiny particles, tend to travel farther without loss through absorption or scattering. Further work on the effects of salinity, temperature, and pressure on the speed of sound has yielded fascinating insights into the structure of the ocean. Speaking generally, the ocean is divided into horizontal layers in which sound speed is influenced more greatly by temperature in the upper regions and by pressure in the lower depths. At the surface is a sun-warmed upper layer, the actual temperature and thickness of which varies with the season. At mid-latitudes, this layer tends to be isothermal, that is, the temperature tends to be uniform throughout the layer because the water is well mixed by the action of waves, winds, and convection currents; a sound signal moving down through this layer tends to travel at an almost constant speed. Next comes a transitional layer called the thermocline, in which temperature drops steadily with depth; as temperature falls, so does the speed of sound.

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

F The realization that SOSUS could be used to listen to whales also was made by Christopher Clark, a biological acoustician at Cornell University, when he first visited a SOSUS station in 1992. When Clark looked at the graphic representations of sound, scrolling 24 hours day, every day, he saw the voice patterns of blue, finback, minke, and humpback whales. He also could hear the sounds. Using a SOSUS receiver in the West Indies, he could hear whales that were 1,770 kilometers (1,100 miles) away. Whales are the biggest of Earth's creatures. The blue whale, for example, can be 100 feet long and weigh as many tons. Yet these animals also are remarkably elusive. Scientists wish to observe blue time and position them on a map. Moreover, they can track not just one whale at a time, but many creatures simultaneously throughout the North Atlantic and the eastern North Pacific. They also can learn to distinguish whale calls. For example, Fox and colleagues have detected changes in the calls of finback whales during different seasons and have found that blue whales in different regions of the Pacific ocean have different calls. Whales firsthand must wait in their ships for the whales to surface. A few whales have been tracked briefly in the wild this way but not for very great distances, and much about them remains unknown. Using the SOSUS stations, scientists can track the

whales in real time and position them on a map. Moreover, they can track not just one whale at a time, but many creatures simultaneously throughout the North Atlantic and the eastern North Pacific. They also can learn to distinguish whale calls. For example, Fox and colleagues have detected changes in the calls of finback whales during different seasons and have found that blue whales in different regions of the Pacific Ocean have different calls.

G SOSUS, with its vast reach, also has proved instrumental in obtaining information crucial to our understanding of Earth's weather and climate. Specifically, the system has enabled researchers to begin making ocean temperature measurements on a global scale – measurements that are keys to puzzling out the workings of heat transfer between the ocean and the atmosphere. The ocean plays an enormous role in determining air temperature the heat capacity in only the upper few meters of ocean is thought to be equal to all of the heat in the entire atmosphere. For sound waves traveling horizontally in the ocean, speed is largely a function of temperature. Thus, the travel time of a wave of sound between two points is a sensitive indicator of the average temperature along its path. Transmitting sound in numerous directions through the deep sound channel can give scientists measurements spanning vast areas of the globe. Thousands of sound paths in the ocean could be pieced together into a map of global ocean temperatures and, by repeating measurements along the same paths over times, scientists could track changes in temperature over months or years.

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

Questions 1-4

Do the following statements agree with the information given in Reading Passage 1? In boxes 1-4 on your answer sheet, write

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

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

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

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

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

Questions 5-8

The reading Passage has seven paragraphs A-H.

Which paragraph contains the following information?

Write the correct letter A-H, in boxes 5-8 on your answer sheet.

NB You may use any letter more than once

5. Elements affect sound transmission in the ocean.

6. Relationship between global climate and ocean temperature

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

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

Questions 9-13

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

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

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

A Leonardo da Vinci

B Isaac Newton

C John William Strutt

D Charles Sturm

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

A Lord Rayleigh

B John William Strutt

C Charles Sturm

D Christopher Clark

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

A Change in various seasons

B Change in various days

C Change in different months

D Change in different years

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

A Track all kinds of whales in the ocean

B Track bunches of whales at the same time

C Track only finback whale in the ocean

D Track whales by using multiple appliances or devices

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

A Temperature of the surface passed

B Temperature of the deepest ocean floor

C Variation of temperature

D Fixed data of temperature

SECTION 2

You should spend about 20 minutes on Questions 14-27, which are based on Reading Passage 2 on the following pages.

Monkeys and Forests

AS AN EAST WIND blasts through a gap in the Cordillera de Tilaran, , a rugged mountain range that splits northern Costa Rica in half, a female mantled howler monkey moves through the swaying trees of the forest canopy.

A Ken Glander, a primatologist from Duke L University, gazes into the canopy, tracking the female's movements. Holding a dart gun, he waits with infinite patience for the right moment to shoot. With great care, Glander aims and fires. Hit in the rump, the monkey wobbles. This howler belongs to a population that has lived for decades at Hacienda La Pacifica, a working cattle ranch in Guanacaste province. Other native primates — white-faced capuchin monkeys and spider monkeys — once were common in this area, too, but vanished after the Pan-American Highway was built nearby in the 1950s. Most of the surrounding land was clear-cut for pasture.

B Howlers persist at La Pacifica, Glander explains, because they are leaf-eaters. They eat fruit, when it's available but, unlike capuchin and spider monkeys, do not depend on large areas of fruiting trees. "Howlers can survive anyplace you have half a dozen trees, because their eating habits are so flexible" he says. In forests, life is an arms race between trees and the myriad creatures that feed on leaves. Plants have evolved a variety of chemical defenses, ranging from bad-tasting tannins, which bind with plant-produced nutrients, rendering them indigestible, to deadly poisons, such as alkaloids and cyanide.

C All primates, including humans, have some ability to handle plant toxins. "We can detoxify a dangerous poison known as caffeine, which is deadly to a lot of animals:' Glander says. For leaf-eaters, long-term exposure to a specific plant toxin can increase their ability to defuse the poison and absorb the leaf nutrients. The leaves that grow in regenerating forests, like those at La Pacifica, are actually more howler friendly than those produced by the undisturbed, centuries-old trees that survive farther south, in the Amazon Basin. In younger forests, trees put most of their limited energy into growing wood, leaves and fruit, so they produce much lower levels of toxin than do well-established, old-growth trees.

D The value of maturing forests to primates is a subject of study at Santa Rosa National Park, about 35 miles northwest of Hacienda La Pacifica. The park hosts populations not only of mantled howlers but also of white-faced capuchins and spider monkeys. Yet the forests there are young, most of them less than 50 years old. Capuchins were the first to begin using the reborn forests, when the trees were as young as 14 years. Howlers, larger and heavier than capuchins, need somewhat older trees, with limbs that can support their greater body weight. A working ranch at Hacienda La Pacifica also explain their population boom in Santa Rosa. "Howlers are more resilient than capuchins and spider monkeys for several reasons, Fedigan explains. "They can live within a small home range, as long as the trees have the right food for them. Spider monkeys, on the other hand, occupy a huge home range, so they can't make it in fragmented habitat"

E Howlers also reproduce faster than do other monkey species in the area. Capuchins don't bear their first young until about 7 years old, and spider monkeys do so even later, but howlers give birth for the first time at about 3.5 years of age. Also, while a female spider monkey will have a baby about once every four years, well-fed howlers can produce an infant every two years.

F The leaves howlers eat hold plenty of water, so the monkeys can survive away from open streams and water holes. This ability gives them a real advantage over capuchin and spider monkeys, which have suffered during the

long, ongoing drought in Guanacaste.

G Growing human population pressures in Central and South America have led to persistent destruction of forests. During the 1990s, about 1.1 million acres of Central American forest were felled yearly. Alejandro Estrada, an ecologist at Estacion de Biologia Los Tuxtlas in Veracruz, Mexico, has been exploring how monkeys survive in a landscape increasingly shaped by humans. He and his colleagues recently studied the ecology of a groupof mantled howler monkeys that thrive in a habitat completely altered by humans: a cacao plantation in Tabasco, Mexico. Like many varieties of coffee, cacao plants need shade to grow, so 40 years ago the landowners planted fig, monkey pod and other tall trees to form a protective canopy over their crop. The howlers moved in about 25 years ago after nearby forests were cut. This strange habitat, a hodgepodge of cultivated native and exotic plants, seems to support about as many monkeys as would a same-sized patch of wild forest. The howlers eat the leaves and fruit of the shade trees, leaving the valuable cacao pods alone, so the farmers tolerate them

H Estrada believes the monkeys bring underappreciated benefits to such farms, dispersing the seeds of fig and other shade trees and fertilizing the soil with feces. He points out that howler monkeys live in shade coffee and cacao plantations in Nicaragua and Costa Rica as well as in Mexico. Spider monkeys also forage in such plantations, though they need nearby areas of forest to survive in the long term. He hopes that farmers will begin to see the advantages of associating with wild monkeys, which includes potential ecotourism projects.

"Conservation is usually viewed as a conflict between agricultural practices and the need to preserve nature," Estrada says. "We're moving away from that vision and beginning to consider ways in which agricultural activities may become a tool for the conservation of primates in human-modified landscapes."

Questions 14-19

The reading Passage has seven paragraphs A-I.

Which paragraph contains the following information? Write the correct letter U, in boxes 14-19 on your answer sheet.

14. a reference of reduction in Forest inhabitant

15. Only one species of monkey survived while other two species were vanished

16. a reason for howler Monkey of choosing new leaves

17. mention to howler Monkey's nutrient and eating habits

18. a reference of asking farmers' changing attitude toward wildlife

19. the advantage for howler Monkey's flexibility living in a segmented habitat

Questions 20-22

Look at the following places and the list of descriptions below.

Match each description with the correct place, A-E.

Write the correct letter, A-E, in boxes 20-22 on your answer sheet.

List of places
A Hacienda La Pacifica
B Santa Rosa National Park
C a cacao plantation in Tabasco, Mexico
D Estacion de Biologia Los Tuxtlas in Veracruz, Mexico
E Amazon Basin

20. howler Monkey's benefit to the local region's agriculture

21. Original home for all three native monkeys

22. A place where Capuchins monkey comes for a better habitat

Questions 23-27

Complete the sentences below.

Choose NO MORE THAN TWO WORDS from the passage for each answer. Write your answers in boxes 23-27 on your answer sheet.

The reasons for Howlers monkey survive better

in focal region than other two species

Howlers in La Pacifica since they can feed themselves with leaf when 23.....is not easily found

Howlers has better ability to alleviate the 24..... which old and young trees used to protect themselves)

When compared to that of spider monkeys and capuchin monkeys, the 25 ..... the rate of Howlers is relatively faster (round for just every 2 years).

The monkeys can survive away from open streams and water holes as the leaves howlers eat hold high content of 26..... which ensure them to resist to continuous 27..... in Guanacaste

SECTION 3

A While it may not be possible to completely age-proof our brains, a bravenew world of anti-aging research shows that our gray matter may be far more flexible than we thought. So no one, no matter how old, has to lose their mind. The brain has often been called the three-pound universe. It's our most powerful and mysterious organ, the seat of the self, laced with as many billions of neurons as the galaxy has stars. No wonder the mere notion of an aging, failing brain——and the prospect of memory loss, confusion, and the unraveling of our personality——is so terrifying. As Mark Williams, M.D., author of The American Geriatrics Society's Complete Guide to Aging and Health, says, "The fear of dementia is stronger than the fear of death itself." Yet the degeneration of the brain is far from inevitable. " Its design features are such that it should continue to function for a lifetime," says Zaven Khachaturian, Ph.D., director of the Alzheimer1s Association1s Ronald and Nancy Reagan Research Institute. "There's no reason to expect it to deteriorate with age, even though many of us are living longer lives." In fact, scientists ' view of the brain1s potential is rapidly changing, according to Stanford University neuroscientist Robert Sapolsky, Ph.D.

"Thirty-five years ago we thought Alzheimer1 s disease was a dramatic version of normal aging. Now we realize it1s a disease with a distinct pathology. In fact, some people simply don't experience any mental decline, so we've begun to study them." Antonio Damasio, M.D., Ph.D., head of the Department of Neurology at the University of Iowa and author of

Descartes' Error, concurs. "Older people can continue to have extremely rich and healthy mental lives.'

B The seniors were tested in 1988 and again in 1991. Four factors were found to be related to their mental fitness: levels of education and physical activity, lung function, and feelings of self-efficacy "Each of these elements alters the way our brain functions, "says Marilyn Albert, Ph.D. , of Harvard Medical School, and colleagues from Yale, Duke, and Brandeis Universities and the Mt. Sinai School of Medicine, who hypothesizes that regular exercise may actually stimulate blood flow to the brain and nerve growth, both of which create more densely branched neurons, rendering the neurons stronger and better able to resist disease. Moderate aerobic exercise, including long brisk walks and frequently climbing stairs, will accomplish this.

C Education also seems to enhance brain function. People who have challenged themselves with at least a college education may actually stimulate the neurons in their brains. Moreover, native intelligence may protect our brains. It's possible that smart people begin life with a greater number of neurons, and therefore have a greater reserve to fall back on if some begin to fail. "If you have a lot of neurons and keep them busy, you may be able to tolerate more damage to your brain before it shows," says Peter Davies, M.D., of the Albert Einstein College of Medicine in the Bronx, New York. Early linguistic ability also seems to help our brains later in life. A recent study in the New England Journal of Medicine looked at 93 elderly nuns and examined the autobiographies they had written 60 years earlier, just as they were joining a convent. The nuns whose essays were complex and dense with ideas remained sharp into their eighties and nineties.

D Finally, personality seems to play an important role in protecting our mental prowess. A sense of self-efficacy may protect our brain, buffeting it from the harmful effects of stress. According to Albert, there' s evidence that elevated levels of stress hormones may harm brain cells and cause the hippocampus——a small seahorse-shaped organ that1s a crucial moderator of memory——to atrophy. A sense that we can effectively chart our own course in the world may retard the release of stress hormones and protect us as we age. "It' s not a matter of whether you experience stress or not, " Albert concludes , "it's your attitude toward it. " Reducing stress by meditating on a regular basis may buffer the brain as well. It also increases the activity of the brain' s pineal gland, the source of the antioxidant hormone melatonin, which regulates sleep and may retard the aging process. Studies at the University of Massachusetts Medical Center and the University of Western Ontario found that people who meditated regularly had higher levels of melatonin than those who took 5-milligram supplements Another study, conducted jointly by Maharishi international University, Harvard University, and the University of Maryland, found that seniors who meditated for three months experienced dramatic improvements in their psychological well-being, compared to their non-meditative peers.

E Animal studies confirm that both mental and physical activity boost brain fitness. At the Beckman Institute for Advanced Science and Technology in Urbana, Illinois, psychologist William Greenough, Ph. D., let some rats play with a profusion of toys. These rodents developed about 25 percent more connections between their neurons than did rats that didn't get any mentally stimulating recreation. In addition, rats that exercised on a treadmill developed more capillaries in specific parts of their brains than did their sedentary counterparts. This increased the blood flow to their brains. "Clearly the message is to do as many different flyings as possible," Greenough says.

F It's not just scientists who are catching anti-aging fever. Walk into any health food store, and you111 find nutritional formulas ——with names like Brainstorm and Smart ALEC——that claim to sharpen mental ability. The book Smart Drugs & Nutrients, by Ward Dean, M.D., and John Morgenthaler, was self-published in 1990 and has sold over 120,000 copies worldwide. It has also spawned an underground network of people tweaking their own brain chemistry with nutrients and drugs——the latter sometimes obtained from Europe and Mexico. Sales of ginkgo ——an extract from the leaves of the 200-mill ion-year-old ginkgo tree, which has been shown in published studies to increase oxygen in the brain and ameliorate symptoms of Alzheimer´s disease——are up by 22 percent in the last six months alone, according to Paddy Spence, president of SPINS, a San Francisco-based market research firm. Indeed, products that increase and preserve mental performance are a small but emerging segment of the supplements industry, says Linda Gilbert, president of Health Focus, a company that researches consumer health trends. While neuroscientists like Khachaturian liken the use of these products to the superstition of tossing salt over your shoulder, the public is nevertheless gobbling up nutrients that promise cognitive enhancement.

Questions 28-31

Choose the Four correct letters among A-G

Write your answers in boxes 28-31 on your answer sheet.

Which of the FOUR situations or conditions assisting the Brains' function?

A Preventive treatment against Alzheimer's disease

B Doing active aerobic exercise and frequently climbing stairs

C High levels of education

D Early verbal or language competence training

E Having more supplements such as ginkgo tree

F Participate in more physical activity involving in stimulating tasks

G Personality and feelings of self-fulfillment

Questions 32-39

Use the information in the passage to match the people (listed A-G) with opinions or deeds below. Write the appropriate letters A-G in boxes 32-39 on your answer sheet.

NB you may use any latter more than once

A Zaven Khachaturian

B William Greenough

C Marilyn Albert

D Robert Sapolsky

E Linda Gilbert

F Peter Davies

G Paddy Spence

32. Alzheimer's was probably a kind of disease rather than a normal aging process.

33. Keeping neurons busy, people may be able to endure more harm to your brain

34. Regular exercises boost blood flow to the brain and increase anti-disease disability.

35. Significant increase of Sales of ginkgo has been shown.

36. More links between their neurons are found among stimulated animals.

37. Effectiveness of the use of brains supplements products can be of little scientific proof.

38. Heightened levels of stress may damage brain cells and cause part of brain to deteriorate.

39. Products that upgrade and preserve mental competence are still a newly developing industry.

Questions 40

Choose the correct letters among A-D

Write your answers in box 40 on your answer sheet.

According the passage, what is the most appropriate title for this passage?

A Making our minds last a lifetime

B amazing pills of the ginkgo

C how to stay healthy in your old hood

D more able a brain and neurons

ANSWER KEYS

1	TRUE	**8**	FALSE	**3**	NOT GIVEN
4	TRUE	**5**	D	**6**	G
7	F	**8**	D	**9**	D
10	A	**11**	A	**12**	B
13	C				
14	G	**15**	A	**16**	C
17	B	**18**	I	**19**	D
20	C	**21**	A	**22**	B
23	Fruits	**24**	Plant toxins/ toxin	**25**	Reproduction/ reproduce
26	Water	**27**	drought		

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

TEST 10

SECTION 1

Dirty river but clean water

Floods can occur in rivers when the flow rate exceeds the capacity of the river channel, particularly at bends or meanders in the waterway. Floods often cause damage to homes and businesses if they are in the natural flood plains of rivers. While riverine flood damage can be eliminated by moving away from rivers and other bodies of water, people have traditionally lived and worked by rivers because the land is usually flat and fertile and because rivers provide easy travel and access to commerce and industry.

A FIRE and flood are two of humanity's worst nightmares. People have, therefore**,** always sought to control them. Forest fires are snuffed out quickly. The flow of rivers is regulated by weirs and dams. At least, that is how it used to be. But foresters have learned that forests need fires to clear out the brush and even to get seeds to germinate. And a similar revelation is now dawning on hydrologists. Rivers — and the ecosystems they support — need floods. That is why a man-made torrent has been surging down the Grand Canyon. By Thursday March 6th it was running at full throttle, which was expected to be sustained for 60 hours.

B Floods once raged through the canyon every year. Spring Snow from as far away as Wyoming would melt and swell the Colorado river to a flow that averaged around 1,500 cubic metres (50,000 cubic feet) a second. Every eight years or so, that figure rose to almost 3,000 cubic metres. These floods infused the river with sediment, carved its beaches and built its sandbars.

C However, in the four decades since the building of the Glen Canyon dam, just upstream of the Grand Canyon, the only sediment that it has collected has come from tiny, undammed tributaries. Even that has not been much use as those tributaries are not powerful enough to distribute the sediment in an ecologically valuable way.

D This lack of flooding has harmed local wildlife. The humpback chub, for example, thrived in the rust-red waters of the Colorado. Recently, though, its population has crashed. At first sight, it looked as if the reason was that the chub were being eaten by trout introduced for sport fishing in the mid-20th century. But trout and chub co-existed until the Glen Canyon dam was built, so something else is going on. Steve Gloss, of the United States' Geological Survey (USGS), reckons that the chub's decline is the result of their losing their most valuable natural defense, the Colorado's rusty sediment. The chub were well adapted to the poor visibility created by the thick, red water which gave the river its name, and depended on it to hide from predators. Without the cloudy water the chub became vulnerable.

E And the chub are not alone. In the years since the Glen Canyon dam was built, several species have vanished altogether. These include the Colorado pike-minnow, the razorback sucker and the roundtail chub. Meanwhile, aliens including fathead minnows, channel catfish and common carp, which would have been hard, put to survive in the savage waters of the undammed canyon, have moved in.

F So flooding is the obvious answer. Unfortunately, it is easier said than done. Floods were sent down the Grand Canyon in 1996 and 2004 and the results were mixed. In 1996 the flood was allowed to go on too long. To start with, all seemed well. The floodwaters built up sandbanks and infused the river with sediment. Eventually, however, the continued flow washed most of the sediment out of the canyon. This problem was avoided in 2004 , but unfortunately, on that occasion, the volume of sand available behind the dam was too low to rebuild the sandbanks. This time, the USGS is convinced that things will be better. The amount of sediment available is three times greater than it was in 2004. So if a flood is going to do some good, this is the time to unleash one.

G Even so, it may turn out to be an empty gesture. At less than 1,200 cubic metres a second, this flood is smaller than even an average spring flood, let alone one of the mightier deluges of the past. Those glorious inundations moved massive quantities of sediment through the Grand Canyon, wiping the slate dirty, and making a muddy mess of silt and muck that would make modem river rafters cringe.

Questions 1-7

Do the following statements agree with the information given in Reading Passage 1? In boxes 1-7 on your answer sheet, write

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

1. Damage caused by fire is worse than that caused by flood.

2. The flood peaks at almost 1500 cubic meters every eight years.

3. Contribution of sediments delivered by tributaries has little impact.

4. Decreasing number of chubs is always caused by introducing of trout since mid-20th

5. It seemed that the artificial flood in 1996 had achieved success partly at the very beginning

6. In fact, the yield of artificial flood water is smaller than an average natural flood at present.

7. Mighty floods drove fast moving flows with clean and high quality water.

Questions 8-13

Complete the summary below.

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

Write your answers in boxes 8-13 on your answer sheet.

The Eco- Impact of the Canyon Dam

Floods are peopled nightmare. In the past, canyon was raged by flood every year. The snow from far Wyoming would melt in the season of 8..... and caused a flood flow peak in Colorado river. In the four decades after people built the Glen Canyon dam, it only could gather 9..... together from tiny, undammed tributaries.

humpback chub population reduced, why?

Then, several species disappeared including Colorado pike-minnow, 10 ..... and the round-tail chub. Meanwhile, some moved in such as fathead minnows, channel catfish and 11.....The non-stopped flow leaded to the washing away of the sediment out of the canyon, which poses great threat to the chubs because it has poor 12..... away from predators. In addition, the volume of 13..... available behind the dam was too tow to rebuild the bars and flooding became more serious.

SECTION 2

Smell and Memory

SMELLS LIKE YESTERDAY

Why does the scent of a fragrance or the mustiness of an old trunk trigger such powerful memories of childhood? New research has the answer, writes Alexandra Witze.

A You probably pay more attention to a newspaper with your eyes than with your nose. But lift the paper to your nostrils and inhale. The smell of newsprint might carry you back to your childhood, when your parents perused the paper on Sunday mornings. Or maybe some other smell takes you back- the scent of your mother's perfume, the pungency of a driftwood campfire. Specific odours can spark a flood of reminiscences. Psychologists call

it the "Proustian phenomenon ", after French novelist Marcel Proust. Near the beginning of the masterpiece In Search of Lost Time, Proust's narrator dunks a madeleine cookie into a cup of tea – and the scent and taste unleash a torrent of childhood memories for 3000 pages.

B Now, this phenomenon is getting the scientific treatment. Neuroscientists Rachel Herz, a cognitive neuroscientist at Brown University in Providence, Rhode Island, have discovered, for instance, how sensory memories are shared across the brain, with different brain regions remembering the sights, smells, tastes and sounds of a particular experience. Meanwhile, psychologists have demonstrated that memories triggered by smells can be more emotional, as well as more detailed, than memories not related to smells. When you inhale, odour molecules set brain cells dancing within a region known as the amygdala, a part of the brain that helps control emotion. In contrast, the other senses, such as taste or touch, get routed through other parts of the brain before reaching the amygdala. The direct link between odours and the amygdala may help explain the emotional potency of smells. "There is this unique connection between the sense of smell and the part of the brain that processes emotion," says Rachel Herz.

C But the links don't stop there. Like an octopus reaching its tentacles outward, the memory of smells affects other brain regions as well. In recent experiments, neuroscientists at University College London (UCL) asked 15 volunteers to look at pictures while smelling unrelated odours. For instance, the subjects might see a photo of a duck paired with the scent of a rose, and then be asked to create a story linking the two. Brain scans taken at the time revealed that the volunteers' brains were particularly active in a region known as the olfactory cortex, which is known to be involved in processing smells. Five minutes later, the volunteers were shown the duck photo again, but without the rose smell. And in their brains, the olfactory cortex lit up again, the scientists reported recently. The fact that the olfactory cortex became active in the absence of the odour suggests that people's sensory memory of events is spread across different brain regions. Imagine going on a seaside holiday, says UCL team leader, Jay Gottfried. The sight of the waves becomes stored in one area, whereas the crash of the surf goes elsewhere, and the smell of seaweed in yet another place. There could be advantages to having memories spread around the brain. "You can reawaken that memory from any one of the sensory triggers," says Gottfried. ''Maybe the smell of the sun lotion, or a particular sound from that day, or the sight of a rock formation." Or – in the case of an early hunter and gatherer (out on a plain – the sight of a lion might be trigger the urge to flee, rather than having to wait for the sound of its roar and the stench of its hide to kick in as well.

D Remembered smells may also carry extra emotional baggage, says Herz. Her research suggests that memories triggered by odours are more emotional than memories triggered by other cues. In one recent study, Herz recruited five volunteers who had vivid memories associated with a particular perfume, such as opium for Women and Juniper

Breeze from Bath and Body Works. She took images of the volunteers' brains as they sniffed that perfume and an unrelated perfume without knowing which was which. (They were also shown photos of each perfume bottle.) Smelling the specified perfume activated the volunteers brains the most, particularly in the amygdala, and in a region called the hippocampus, which helps in memory formation. Herz published the work earlier this year in the journal Neuropsychologia.

E But she couldn't be sure that the other senses wouldn't also elicit a strong response. So in another study Herz compared smells with sounds and pictures. She had 70 people describe an emotional memory involving three items – popcorn, fresh-cut grass and a campfire. Then they compared the items through sights, sounds and smells. For instance, the person might see a picture of a lawnmower, then sniff the scent of grass and finally listen to the lawnmower's sound. Memories triggered by smell were more evocative than memories triggered by either sights or sounds.

F Odour-evoked memories may be not only more emotional, but more detailed as well. Working with colleague John Downes, psychologist Simon Chu of the University of Liverpool started researching odour and memory partly because of his grandmother's stories about Chinese culture. As generations gathered to share oral histories, they would pass a small pot of spice or incense around; later, when they wanted to remember the story in as much detail as possible, they would pass the same smell around again. "It's kind of fits with a lot of anecdotal evidence on how smells can be really good reminders of past experiences," Chu says. And scientific research seems to bear out the anecdotes. In one experiment, Chu and Downes asked 42 volunteers to tell a life story, then tested to see whether odours such as coffee and cinnamon could help them remember more detail in the story. They could.

G Despite such studies, not everyone is convinced that Proust can be scientifically analysed. In the June issue of Chemical Senses, Chu and Downes exchanged critiques with renowned perfumer and chemist J. Stephan Jellinek. Jellinek chided the Liverpool researchers for, among other things, presenting the smells and asking the volunteers to think of memories, rather than seeing what memories were spontaneously evoked by the odours. But there's only so much science can do to test a phenomenon that's inherently different for each person, Chu says. Meanwhile, Jellinek has also been collecting anecdotal accounts of Proustian experiences, hoping to find some there is a case to be made that surprise may be a major aspect of the Proust phenomenon," he says. "That's why people are so struck by these memories" No one knows whether Proust ever experienced such a transcendental moment. But his notions of memory, written as fiction nearly a century ago, continue to inspire scientists of today.

Questions 14-18

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 14-18 on your answer sheet. NB you may use any letter more than once

A Rachel Herz

B Simon Chu

C Jay Gottfried

14. Found pattern of different sensory memories stored in various zones of a brain.

15. Smell brings detailed event under a smell of certain substance.

16. Connection of smell and certain zones of brain is different with that of other senses.

17. Diverse locations of stored information help us keep away the hazard.

18. There is no necessary correlation between smell and processing zone of brain.

Questions 19-22

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

Write your answers in boxes 19-22 on your answer sheet.

19. What does the experiment conducted by Herz show?

A Women are more easily addicted to opium medicine

B Smell is superior to other senses in connection to the brain

C Smell is more important than other senses

D Amygdala is part of brain that stores processes memory

20. What does the second experiment conducted by Herz suggest?

A Result directly conflicts with the first one

B Result of her first experiment is correct

C Sights and sounds trigger memories at an equal level

D Lawnmower is a perfect example in the experiment

21. What is the outcome of experiment conducted by Chu and Downes?

A smell is the only functional under Chinese tradition

B half of volunteers told detailed stories

C smells of certain odours assist story tellers

D odours of cinnamon is stronger than that of coffee

22. What is the comment of Jellinek to *Chu and Downers* in the issue of *Chemical Senses:*

A Jellinek accused their experiment of being unscientific

B Jellinek thought Liverpool is not a suitable place for experiment

C Jellinek suggested that there was no further clue of what specific memories aroused

D Jellinek stated that experiment could be remedied

Questions 23-26

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 23-26 on your answer sheet.

In the experiments conducted by UCL, participants were asked to look at a picture with a scent of a flower, then in the next stage, everyone would have to..... 23..... for a connection.

A method called..... 24..... suggested that specific area of brain named..... 25..... were quite active. Then in an another paralleled experiment about Chinese elders, storytellers could recall detailed anecdotes when smelling bowl of..... 26..... or incense around.

SECTION 3

Soviet's new working week

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

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

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

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

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

praising the new scheme. In August, the Council of Peoples' Commissars ordered that the continuous work week be brought into immediate effect, during the height of enthusiasm for the Plan, whose goals the new schedule seemed guaranteed to forward.

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

F Official propaganda touted the material and cultural benefits of the new scheme. Workers would get more rest; production and employment would increase (for more workers would be needed to keep the factories running continuously); the standard of living would improve. Leisure time would be more rationally employed, for cultural activities (theatre, clubs, sports) would no longer have to be crammed into a weekend, but could flourish every day, with their facilities far less crowded. Shopping would be easier for the same reasons. Ignorance and superstition, as represented by organized religion, would suffer a mortal blow, since 80 per cent of the workers would be on the job on any given Sunday. The only objection concerned the family, where normally more than one member was working: well, the Sov

Questions 27-34

Reading Passage 2 has nine paragraphs A-I.

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

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

27. Paragraph A

28. Paragraph B

29. Paragraph D

30. Paragraph E

31. Paragraph F

32. Paragraph G

33. Paragraph H

33. Paragraph I

Example	Answer
Paragraph C	iii

Questions 35-37

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

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

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

A Bolsheviks built a strong fortress.

B Russia was weak and backward.

C industrial production increased.

D Stalin was confident about Soviet's potential.

36. Daily working hours were cut from eight to seven to

A improve the lives of all people.

B boost industrial productivity.

C get rid of undesirable work hours.

D change the already establish three-shift work system.

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

A they were pressurized by the state to do so.

B they believed there would not be any practical problems.

C they were able to apply it.

D workers hated the new plan.

Questions 38-40

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

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

38. Whose idea of continuous work week did Stalin approve and helped to implement?

39. What method was used to help workers to remember the rotation of their off days?

40. What was the most resistant force to the new work week scheme?

ANSWER KEYS

1	NOT GIVEN	2	FALSE	3	NOT GIVEN
4	FALSE	5	TRUE	6	TRUE
7	NOT GIVEN	8	Spring	3	Sediment
10	Razorback sucker	11	Common carp	12	Visibility
13	sand				

14	A	15	B	16	A
17	C	18	C	19	D
20	B	21	C	22	C
23	Create a story	24	Brain scans	25	Olfactory cortex
26	Spice				

27	iv	28	Xii	29	ii
30	x	31	I	32	ix
33	v	34	Vii	35	C
36	B	37	A	38	Yuri Larin
39	Colour – coding/ colour	40	Family		