

Candidate number

Candidate name _____

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

Academic Reading

1 hour

Additional materials:

Answer sheet for Listening and Reading

Time 1 hour

INSTRUCTION TO CANDIDATES

Do not open this question paper until you are told to do so.

Write your name and candidate number in the spaces at the top of this page.

Read the instruction for part carefully.

Answer all the questions.

Write your answers on the answer sheet. Use a pencil.

You **must** complete the answer sheet within the time limit.

At the end of the test, hand in both this question paper and your answer sheet.

INFORMATION FOR CANDIDATES

There are **40** questions on this question paper. Each question carries one mark.

Passage 1

Sustainable architecture - lessons from the ant

Termite mounds were the inspiration for an innovative design in sustainable living

- A.** Africa owes its termite mounds a lot. Trees and shrubs take root in them. Prospectors mine them, looking for specks of gold carried up by termites from hundreds of metres below. And of course, they are a special treat to aardvarks and other insectivores.
- B.** Now, Africa is paying an offbeat tribute to these towers of mud. The extraordinary Eastgate Building in Harare, Zimbabwe's capital city, is said to be the only one in the world to use the same cooling and heating principles as the termite mound.
- C.** Termites in Zimbabwe build gigantic mounds inside which they farm a fungus that is their primary food source. This must be kept at exactly 30.5°C, while the temperatures on the African yield outside can range from 1.5°C at night only just above freezing to a baking hot 40°C during the day. The termites achieve this remarkable feat by building a system of vents in the mound. Those at the base lead down into chambers cooled by wet mud carried up from water tables far below, and others lead up through a Hue to the peak of the mound. By constantly opening and closing these heating and cooling vents over the course of the day the termites succeed in keeping the temperature constant in spite of the wide fluctuations outside.
- D.** Architect Mick Pearce used precisely the same strategy when designing the Eastgate Building, which has no air conditioning and virtually no heating. The building the country's largest commercial and shopping complex uses less than 10% of the energy of a conventional building ns size. These efficiencies translated directly to the bottom line: the Eastgate's owners saved \$3.5 million on a \$36 million building because an air-conditioning plant didn't have to be imported. These savings were also passed on to tenants: rents are 20% lower than in a new building next door.
- E.** The complex is actually two buildings linked by bridges across a shady, glass-roofed atrium open to the breezes. Fans suck fresh air in from the atrium, blow it upstairs through hollow spaces under the floors and from there into each office through baseboard vents. As it rises and warms, it is drawn out via ceiling vents and finally exits through forty- eight brick chimneys.
- F.** To keep the harsh, high yield sun from heating the interior, no more than 25% of the outside is glass, and all the windows are screened by cement arches that just out more than a metre.

G. During summer's cool nights, big fans flush air through the building seven times an hour to chill the hollow floors. By day, smaller fans blow two changes of air an hour through the building, to circulate the air which has been in contact with the cool floors. For winter days, there are small heaters in the vents.

H. This is all possible only because Harare is 1600 feet above sea level, has cloudless skies, little humidity and rapid temperature swings days as warm as 31°C commonly drop to 14°C at night. 'You couldn't do this in New York, with its fantastically hot summers and fantastically cold winters,' Pearce said. But then his eyes lit up at the challenge.' Perhaps you could store the summer's heat in water somehow.

I. The engineering firm of Ove Arup & Partners, which worked with him on the design, monitors daily temperatures outside, under the floors and at knee, desk and ceiling level. Ove Arup's graphs show that the temperature of the building has generally stayed between 23°C and 25°C. with the exception of the annual hot spell just before the summer rains in October, and three days in November, when a janitor accidentally switched off the fans at night. The atrium, which funnels the winds through, can be much cooler. And the air is fresh far more so than in air-conditioned buildings, where up to 30% of the air is recycled.

J. Pearce, disdaining smooth glass skins as 'igloos in the Sahara', calls his building, with its exposed girders and pipes, 'spiky'. The design of the entrances is based on the porcupine-quill headdresses of the local Shona tribe. Elevators are designed to look like the mineshaft cages used in Zimbabwe's diamond mines. The shape of the fan covers, and the stone used in their construction, are echoes of Great Zimbabwe, the ruins that give the country its name. Standing on a roof catwalk, peering down inside at people as small as termites below. Pearce said he hoped plants would grow wild in the atrium and pigeons and bats would move into it. like that termite fungus, further extending the whole 'organic machine' metaphor. The architecture, he says, is a regionalised style that responds to the biosphere, to the ancient traditional stone architecture of Zimbabwe's past, and to local human resources.

Questions 1-5

Instructions to follow

- Choose the correct answer, **A, B, C** or **D**
- Write your answers in boxes **1-5** on your answer sheet.

1. Why do termite mounds have a system of vents?

- A.** to allow the termites to escape from predators
- B.** to enable the termites to produce food
- C.** to allow the termites to work efficiently
- D.** to enable the termites to survive at night

2. Why was Eastgate cheaper to build than a conventional building?

- A.** Very few materials were imported.
- B.** Its energy consumption was so low.
- C.** Its tenants contributed to the costs.
- D.** No air conditioners were needed.

3. Why would a building like Eastgate not work efficiently in New York?

- A.** Temperature change occurs seasonally rather than daily.
- B.** Pollution affects the storage of heat in the atmosphere.
- C.** Summer and winter temperature are too extreme
- D.** Levels of humidity affect cloud coverage.

4. What does Ove Arup's data suggest about Eastgate's temperature control system?

- A.** It allows a relatively wide range of temperatures.
- B.** The only problems are due to human error.
- C.** It functions well for most of the year.
- D.** The temperature in the atrium may fall too low.

5. Pearce believes that his building would be improved by

- A.** becoming more of a habitat for wildlife.
- B.** even closer links with the history of Zimbabwe.
- C.** giving people more space to interact with nature.
- D.** better protection from harmful organisms.

Questions 6-10

Instructions to follow

- Complete the sentences below with words taken from Passage 1.
- Use **NO MORE THAN THREE WORDS** for each answer.
- Write your answers in boxes 6-10 on your answer sheet.

Warm air leaves the offices through **6**.....

The warm air leaves the building through **7**.....

Heat from the sun is prevented from reaching the windows by **8**.....

When the outside temperature drops **9**..... bring air in from outside.

On cold days **10**..... raise the temperature in the offices.

Questions 11-13

Instructions to follow

- Answer the question below, using **NO MORE THAN THREE WORDS** from the passage for each answer.
- Write your answers in boxes **11-13** on your answer sheet.

Which **three parts** of the Eastgate Building reflect important features of Zimbabwe's history and culture?

- A. entrances
- B. quill
- C. cages
- D. elevators
- E. fan covers
- F. stone

Passage 2

Multitasking

A. Do you read while listening to music? Do you like to watch TV while finishing your homework? People who have these kinds of habits are called multi-taskers. Multitaskers are able to complete two tasks at the same time by dividing their focus. However, Thomas Lehman, a researcher in Psychology, believes people never really do multiple things simultaneously. Maybe a person is reading while listening to music, but in reality, the brain can only focus on one task. Reading the words in a book will cause you to ignore some of the words of the music. When people think they are accomplishing two different tasks efficiently, what they are really doing is dividing their focus. While listening to music, people become less able to focus on their surroundings. For example, we all have experience of times when we talk with friends and they are not responding properly. Maybe they are listening to someone else talk, or maybe they are reading a text on their smart phone and don't hear what you are saying. Lehman called this phenomenon "email voice"

B. The world has been changed by computers and its spin offs like smart-phones or cellphones. Now that most individuals have a personal device, like a smart-phone or a laptop, they are frequently reading, watching or listening to virtual information. This raises the occurrence of multitasking in our day to day life. Now when you work, you work with your typewriter, your cellphone, and some colleagues who may drop by at any time to speak with you. In professional meetings, when one normally focuses and listens to one another, people are more likely to have a cell phone in their lap, reading or communicating silently with more people than ever, live inventions such as the cordless phone has increased multitasking. In the old days, a traditional wall phone would ring, and then the housewife would have to stop her activities to answer it. When it rang, the housewife will sit down with her legs up and chat, with no laundry or sweeping or answering the door. In the modern era, our technology is convenient enough to not interrupt our daily tasks.

C. Earl Miller, an expert at the Massachusetts Institute of Technology, studied the prefrontal cortex, which controls the brain while a person is multitasking. According to his studies, the size of this cortex varies between species, He found that for humans, the size of this part constitutes one third of the brain, while it is only 4 to 5 percent in dogs, and about 15% in monkeys. Given that this cortex is larger on a human, it allows a human to be more flexible and accurate in his or her multitasking.. However, Miller wanted to look further into whether the cortex was truly processing information about two different tasks simultaneously. He designed an experiment where he presents visual stimulants to his subjects in a way that mimics multi-tasking. Miller then attached sensors to the patients' heads to pick up the electric patterns of the brain. This sensor would show if " the brain particles, called neurons, were truly processing two different tasks. What he found is that the brain neurons only lit up in singular areas one at a time, and never simultaneously.

D. Davis Meyer, a professor of University of Michigan, studied the young adults in a similar experiment. He instructed them to simultaneously do math problems and classify simple words into different categories. For this experiment. Meyer found that when you think you are doing several jobs at the same time, you are actually switching between jobs. Even though the people tried to do the tasks at the same time, and both tasks were eventually accomplished, overall, the task took more time than if the person focused on a single task one at a time.

E. People sacrifice efficiency when multitasking, Gloria Mark set office workers as his subjects. He found that they were constantly multitasking. He observed that nearly every 11 minutes people at work were disrupted. He found that doing different jobs at the same time may actually save time. However, despite the fact that they are faster, it does not mean they are more efficient. And we are equally likely to self-interrupt as be interrupted by outside sources. He found that in office nearly every 12 minutes an employee would stop and with no reason at all, check a website on their computer, call someone or write an email. If they concentrated for more than 20 minutes, they would feel distressed. He suggested that the average person may suffer from a short concentration span. This short attention span might be natural, but others suggest that new technology may be the problem. With cellphones and computers at our sides at all times, people will never run out of distractions. The format of media, such as advertisements, music, news articles and TV shows are also shortening, so people are used to paying attention to information for a very short time.

F. So even though focusing on one single task is the most efficient way for our brains to work, it is not practical to use this method in real life. According to human nature, people feel more comfortable and efficient in environments with a variety of tasks, Edward Hallowell said that people are losing a lot of efficiency in the workplace due to multitasking, outside distractions and self-distractions. As a matter of fact, the changes made to the workplace do not have to be dramatic. No one is suggesting we ban e-mail or make employees focus on only one task. However, certain common workplace tasks, such as group meetings, would be more efficient if we banned cell-phones, a common distraction. A person can also apply these tips to prevent self-distraction. Instead of arriving to your office and checking all of your e-mails for new tasks, a common workplace ritual, a person could dedicate an hour to a single task first thing in the morning. Self-timing is a great way to reduce distraction and efficiently finish tasks one by one, instead of slowing ourselves down with multi-tasking.

Questions 14-18

Reading Passage 2 has six paragraphs, **A-F**

Instructions to follow

- Write the correct letter, A-F, in boxes 14-18 on your answer sheet.

Which paragraph contains the following information?

- 14.** a reference to a domestic situation that does not require multitasking
- 15.** a possible explanation of why we always do multitask together
- 16.** a practical solution to multitask in work environment
- 17.** relating multitasking to the size of prefrontal cortex
- 18.** longer time spent doing two tasks at the same time than one at a time

Questions 19-23

Instructions to follow

- Look at the following statements (Questions 19-23) and the list of scientists below. Match each statement with the correct scientist, **A-F**.
- Write the correct letter, A-E, in boxes 19-23 on your answer sheet.
- NB You may use any letter more than once.

List of Scientists

- A.** Thomas Lehman
- B.** Earl Miller
- C.** David Meyer
- D.** Gloria Mark
- E.** Edward Hallowell

- 19.** When faced multiple visual stimulants, one can only concentrate on one of them.
- 20.** Doing two things together may be faster but not better.
- 21.** People never really do two things together even if you think you do.
- 22.** The causes of multitask lie in the environment.
- 23.** Even minor changes in the workplace will improve work efficiency.

Questions 24-27

Complete the sentences below.

Instructions to follow

- Choose **NO MORE THAN TWO WORDS** from the passage for each answer.
- Write your answers in boxes 24-26 on your answer sheet.

A term used to refer to a situation when you are reading a text and cannot focus on your surroundings is **24**..... The **25**..... part of the brain controls multitasking. The practical solution of multitask in work is to curb

26.....by not allowing the use of cellphone in **27**.....

Passage 3

The Pursuit of Happiness

"New research uncovers some anti-intuitive insights into how many people are happy - and why."

A. Compared with misery, happiness is a relatively unexplored terrain for social scientists. Between 1967 and 1994, 46,380 articles indexed in Psychological Abstracts mentioned depression, 36,851 anxiety, and 5,099 anger. Only 2,389 spoke of happiness, 2,340 life satisfaction, and 405 joy.

B. Recently we and other researchers have begun a systematic study of happiness. During the past two decades, dozens of investigators throughout the world have asked several hundred thousand Representative sampled people to reflect on their happiness and satisfaction with life or what psychologists call "subjective well-being". In the US the National Opinion Research Center at the University of Chicago has surveyed a representative sample of roughly 1,500 people a year since 1957; the Institute for Social Research at the University of Michigan has carried out similar studies on a less regular basis, as has the Gallup Organization. Government-funded efforts have also probed the moods of European countries.

C. We have uncovered some surprising findings. People are happier than one might expect, and happiness does not appear to depend significantly on external circumstances. Although viewing life as a tragedy has a long and honorable history, the responses of random samples of people around the world about their happiness paints a much rosier picture. In the University of Chicago surveys, three in 10 Americans say they are very happy, for example. Only one in 10 chooses the most negative description "not too happy". The majority describe themselves as "pretty happy", ...

D. How can social scientists measure something as hard to pin down as happiness? Most researchers simply ask people to report their feelings of happiness or unhappiness and to assess how satisfying their lives are. Such self-reported well-being is moderately consistent over years of retesting. Furthermore, those who say they are happy and satisfied seem happy to their close friends and family members and to a psychologist-interviewer. Their daily mood ratings reveal more positive emotions, and they smile more than those who call themselves unhappy. Self-reported happiness also predicts other indicators of well-being. Compared with the depressed, happy people are less self-focused, less hostile and abusive, and less susceptible to disease.

E. We have found that the even distribution of happiness cuts across almost all demographic classifications of age, economic class, race and educational level. In addition, almost all strategies for assessing subjective well-being - including those that sample people's experience by polling them at random times with beepers - turn up similar findings. Interviews with representative samples of people of all ages, for example, reveal that no time of life is notably happier or unhappier. Similarly, men and women are equally likely to declare themselves "very happy" and "satisfied" with life, according to a statistical digest of 146 studies by Marilyn J. Haring, William Stock and Morris A. Okun, all then at Arizona State University.

F. Wealth is also a poor predictor of happiness. People have not become happier over time as their cultures have become more affluent. Even though Americans earn twice as much in today's dollars as they did in 1957, the proportion of those telling surveyors from the National Opinion Research Center that they are "very happy" has declined from 35 to 29 percent.

G. Even very rich people - those surveyed among Forbes magazine's 100 wealthiest Americans - are only slightly happier than the average American. Those whose income has increased over a 10-year period are not happier than those whose income is stagnant. Indeed, in most nations the correlation between income and happiness is negligible - only in the poorest countries, such as Bangladesh and India, is income a good measure of emotional well-being.

H. Are people in rich countries happier, by and large, than people in not so rich countries? It appears in general that they are, but the margin may be slim. In Portugal, for example, only one in 10 people reports being very happy, whereas in the much more prosperous Netherlands the proportion of very happy is four in 10. Yet there are curious reversals in this correlation between national wealth and well-being - the Irish during the 1980s consistently reported greater life satisfaction than the wealthier West Germans. Furthermore, other factors, such as civil rights, literacy and duration of democratic government, all of which also promote reported life satisfaction, tend to go hand in hand with national wealth. As a result, it is impossible to tell whether the happiness of people in wealthier nations is based on money or is a by-product of other felicities.

I. Although happiness is not easy to predict from material circumstances, it seems consistent for those who have it. In one National Institute on Aging study of 5,000 adults, the happiest people in 1973 were still relatively happy a decade later, despite changes in work, residence and family status. From "The Pursuit of Happiness" by David G. Myers and Ed Diener. Copyright © May 1996 by Scientific American, Inc. All rights reserved.]

Questions 28-30

Instructions to follow

• Choose the appropriate letters A-D and write them in boxes 23-30 on your answer sheet.

28 What point are the writers making in the opening paragraph?

- A. Happiness levels have risen since 1967.
- B. Journals take a biased view on happiness.
- C. Happiness is not a well-documented research area
- D. People tend to think about themselves negatively.

29.What do the writers say about their research findings?

- A. They had predicted the results correctly.
- B. They felt people had responded dishonestly.
- C. They conflict with those of other researchers.
- D. Happiness levels are higher than they had believed.

30 In the fourth paragraph, what does the reader learn about the research method used?

- A. It is new.
- B. It appears to be reliable.
- C. It is better than using beepers.
- D. It reveals additional information.

Questions 31-34

Instructions to follow

• According to the passage, which of the findings below (31-34) is quoted by which Investigative Body (A-G)?

• Write your answers in boxes 31-34 on your answer sheet.

• **NB** There are more Investigative Bodies than findings, so you do not have to use all of them.

31. Happiness is not gender related.

32. Over fifty percent of people consider themselves to be 'happy'.

33. Happiness levels are marginally higher for those in the top income brackets.

34. Happy' people remain happy throughout their lives.

Investigative Bodies

- A. The National Opinion Research Center, University of Chicago
- B. Arizona State University
- C. The Institute for Social Research, University of Michigan
- D. Forbes Magazine
- E. The National Institute on Aging
- F. The Gallup Organization
- G. The Government

Questions 35-40

Instructions to follow

- Complete the summary of Reading Passage 20 below. Choose your answers from the box at the bottom of the page and write them in boxes 35-40 on your answer sheet
- **NB** There are more words than spaces so you will not use them all. You may use any of the words more than once.

HOW HAPPY ARE WE?

Example: Our happiness levels are by relatively few factors.

Answer: Affected

For example, incomes in the States have **35**..... over the past forty years but happiness levels have **36**..... over the same period. In fact, people on average incomes are only slightly **37**..... happy than extremely rich people and a gradual increase in prosperity makes **38**..... difference to how happy we are. In terms of national wealth, populations of wealthy nations are **39**..... happier than those who live in poorer countries. Although in some cases this trend is **40**..... and it appears that other factors need to be considered.

List of words			
Stopped	Slightly	too	great
Doubled	Significant	similar	some
Stabilized	Remarkably	reversed	dropped
No	Less	much	affected
Crept up	Slowed down	more	clearly