

SECTION A. LISTENING (50 points)

*The listening section is in **FOUR** parts. You will hear each part **TWICE***

Part 1. You will hear part of a talk about Tardigrades. For questions 1-5, complete the notes below. Write NO MORE THAN THREE WORDS AND/ OR A NUMBER for each answer. Write your answers in the corresponding numbered spaces on your answer sheet. (10 points)

Tardigrades

- More than 1,000 species, 0.05- (1)_____ millimetres long
- Also known as water ‘bears’ (due to how they move) and ‘moss piglets’.

Physical appearance

- A short, round body and four pairs of legs
- Claws or (2)_____ for gripping
- Absence of respiratory organs
- Body filled with a liquid that carried both (3)_____
- Mouth shaped like a tube with teeth called stylets.

Habitat

- Often found at the bottom of a lake or on plants
- Very resilient and can endure temperatures as low as (4) _____ °C

Cryptobiosis

- In dry conditions, they roll into a ball called a ‘tun’.
- They stay alive with a much lower (5) _____ than usual.
- A type of protein ensures their DNA is not damaged.
- Research is underway to find out how many days they can stay alive in space.

Your Answers

1.	2.	3.	4.	5.
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Part 2. You will hear a talk about Africa. For questions 6-10, decide whether the following statements are True (T), False (F) or Not Given (NG). Write T, F, or NG in the corresponding numbered boxes in your answer sheet. (10 points)

6. African countries with elderly presidents are consistently authoritarian.

7. Paul Biya's hospitalization in Switzerland has hindered the functioning of Cameroon's government.
8. More than three out of four Africans support the idea that their leaders should stop serving after a certain age.
9. The young generation in some African countries feel that the leadership does not resonate with them.
10. Both Senegal and Guinea experienced social unrest during their generational change in leadership.

Your Answers

6.	7.	8.	9.	10.
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Part 3. You will hear a radio interview with a chef about the process of eating. For questions 11-15, choose the answer (A, B, C or D) which fits best according to what you hear. Write the correct answers in the numbered boxes provided. (10 points)

00. Heston mentions eating fish from a paper plate with a plastic knife and fork
- A. because it is something listeners may have done.
 - B. because doing so made him think about the process of eating.
 - C. as an example of an unpleasant eating experience.
 - D. as an example of what influences the eating experience.

Example: 00. D

11. What does Heston say about taste?
 - A. Fat should be considered a taste.
 - B. Taste and flavour are separate from each other.
 - C. The sense of smell is involved in it.
 - D. The number of taste buds gradually decreases.
12. The experiment involving salt and other foods shows that
 - A. it is possible to taste something that you can't smell.
 - B. the sense of smell is not as powerful as other senses.
 - C. food can taste better when you can't smell it.
 - D. the flavour of food can change as you eat it.
13. The story about the trainee waiters illustrates that
 - A. certain colours are more appealing than others.
 - B. something can seem to taste good because of its appearance.
 - C. one sense can strongly influence another.
 - D. some people can perceive taste better than others.
14. What does Heston say about bitterness?

- A. It can give a false impression that something is harmful.
 B. It can become the main reason why people like something.
 C. Reactions to it can change over time.
 D. Its function is widely misunderstood.
15. The problem with the dish Heston describes was caused by
 A. its appearance. B. the taste of it.
 C. its combination of flavours. D. the fact that people ate it repeatedly.

Your answers

11.	12.	13.	14.	15.
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Part 4. You will listen to a talk about biomimicry. For questions 16-25, complete the summary by writing NO MORE THAN THREE WORDS in each gap. Write your answers in the corresponding numbered boxes on your answer sheet. (20 points)

Biomimicry is a field where humans learn from nature, which is described as a (16) _____. Over billions of years, nature has been (17) _____ its designs through evolution.

For example, spider webs inspire stronger materials used in industries such as (18) _____. In Japan, the bullet train was redesigned after engineers studied the kingfisher, solving the issue of a (19) _____ when exiting tunnels.

In hot environments, termites construct (20) _____ that remain cool naturally, influencing energy-efficient buildings. Scientists have also developed (21) _____ inspired by geckos, allowing robots to climb vertical surfaces.

Additionally, shark skin, with its (22) _____, has led to innovations in sportswear and hygiene. Butterfly wings, which manipulate light instead of using pigments, have inspired (23) _____ for currency security.

Looking ahead, scientists are exploring ideas such as plant-based energy solutions and (24) _____ that mimic human skin. Ultimately, biomimicry helps humans develop (25) _____ for the future.

Your answers

16.	21.
17.	22.
18.	23.
19.	24.
20.	25.

SECTION B. LEXICO-GRAMMAR (40 points)

Part 1. For questions 26-45, choose the best option A, B, C, or D to complete the following sentences. Write your answers in the corresponding numbered boxes on your answer sheet. (20 points)

26. _____ repeatedly warned about the risks, the committee chose to proceed with the plan.

- A. Having been B. Being C. To have been D. Having

27. He _____ the implications of the policy; otherwise, he wouldn't have endorsed it so readily.

- A. must have overlooked B. should have overlooked
C. might overlook D. would overlook

28. The more sophisticated the algorithm, _____ its vulnerability to subtle manipulation.

- A. the greater is B. the greater C. the greater it is D. greater is

29. Walking through the ancient ruins, _____.

- A. the sense of history was overwhelming.
B. a deep sense of history overwhelmed me.
C. the ruins were felt full of history.
D. I was overwhelmed by a deep sense of history.

30. Only after food has been dried or canned _____.

- A. that it should be stored for later consumption
B. should be stored for later consumption
C. should it be stored for later consumption
D. it should be stored for later consumption

31. Despite initial skepticism, the scientist's groundbreaking theory gradually gained _____ within the academic community.

- A. traction B. friction C. inertia D. velocity

32. The politician's attempt to justify the controversial policy was seen as a mere _____ to distract public attention from deeper issues.

- A. stratagem B. ploy C. ruse D. gambit

33. Her argument was so _____ that even the most seasoned critics found it difficult to refute.

- A. specious B. cogent C. tenuous D. nebulous

34. The CEO's remarks were deliberately _____, leaving stakeholders uncertain about the company's future direction.

- A. unequivocal B. lucid C. ambiguous D. explicit

35. The historian sought to _____ the long-standing myth by presenting newly discovered archival evidence.

A. perpetuate B. debunk C. corroborate D. vindicate

36. Despite initial skepticism, the committee eventually _____ the proposal after several revisions addressed their concerns.

A. came down on B. came around to C. came up with D. came out against

37. His argument was persuasive at first, but it quickly _____ under closer scrutiny.

A. fell through B. fell apart C. fell back on D. fell in with

38. The CEO's attempt to justify the controversial decision did little to _____ the growing discontent among employees.

A. smooth over B. bring about C. lay out D. carry off

39. Many traditional practices are gradually being _____ as modernization accelerates.

A. edged out B. brought about C. taken in D. run across

40. His proposal was initially dismissed as unrealistic, but it later turned out to be _____.

A. a blessing in disguise B. a storm in a teacup

C. a drop in the ocean D. a shot in the dark

41. When the negotiations reached a deadlock, both parties realized they would have to _____ if any agreement was to be reached.

A. make ends meet B. meet halfway C. go off the rails D. take sides

42. The minister's resignation was widely seen as an attempt to _____, preventing further damage to the administration's reputation.

A. pass the buck B. take the fall C. rock the boat D. steal the show

43. The board's decision to ignore early warning signs may prove to be _____, as the financial crisis deepens.

A. opening a can of worms B. a storm in a teacup

C. the tip of the iceberg D. a recipe for disaster

44. Despite his confident presentation, many experts felt that his arguments did not _____ and lacked solid empirical support.

A. hold water B. break the ice

C. hit the nail on the head D. go the extra mile

45. After years of struggling to gain recognition, the artist finally _____ when her work was exhibited internationally.

A. turned over a new leaf B. came into her own

C. went off the rails D. bit off more than she could chew

Your Answers:

26.	30.	34.	38.	42.
27.	31.	35.	39.	43.

28.	32.	36.	40.	44.
29.	33.	37.	41.	45.

Part 2. For questions 46-55, fill each gap with the correct form of the word in brackets. Write your answers in the corresponding numbered boxes on your answer sheet. (10 points)

46. Instead of giving a direct answer, the politician _____ avoided the question by discussing unrelated issues. (CIRCUIT)
47. Education was once the _____ of the elite (INTERROGATE)
48. The exam is strictly _____ and its scoring process is blind (VIGIL)
49. The museum faced criticism for its _____ of colonial artifacts without proper historical context. (DISPLAY)
50. Despite his impressive qualifications, his _____ refusal to accept constructive criticism undermined his credibility in professional settings. (INFANT)
51. The policy was widely criticized for its _____, as it disproportionately affected marginalized communities. (EQUITABLE)
52. The negotiations broke down due to the _____ of both parties to compromise. (YIELD)
53. His delicate gestures and soft-spoken manner were often perceived as _____, though they had no bearing on his strength or capabilities. (FEMININE)
54. Having an IQ of 200, Anna is confident of never being intellectually _____. (MANOEUVRE)
55. Her memories of childhood were _____, filled with blurred images of summer days and the scent of freshly baked bread rather than specific details. (IMPRESS)

Your Answers:

46.	51.
47.	52.
48.	53.
49.	54.
50.	55.

Part 3. The passage below contains FIVE grammatical mistakes. For questions 56-60, WRITE THE LINE NUMBER of each mistake and its CORRECT FORM in the numbered boxes provided on your answer sheet. The first one has been done as an example. (10 points)

Example: 0. Line 1: type → types

1	The rarest and most expensive type of mushrooms in the world are called
2	truffles and are deemed a great delicacy. Like the mushrooms we eat most of
3	the time, which grow above the ground, truffles grow underground in natural
4	woodland. They have a lumpy, irregular shape and vary from the size of a
5	walnut to the size of a man's fist. To date, no one has been able to cultivate
6	truffles – they grow wildly and have to be hunted for. Ripe truffles produce a
7	characteristic odour. If harvested before this odour develops, the truffle will
8	not be mature enough to eat. Only when it is fragrant is it truly flavourful. It
9	is therefore no surprise that it is the smell of the truffle that leads the hunter
10	to the right place. Dogs, with their keen noses, have been entrusted to the
11	responsibility of truffle hunting. After all, a dog's sense of smell is up to
12	10,000 times better than a human. Pigs are also used to hunt truffles, but they
13	are far from ideal. If they can successfully seek out and locate the truffle,
14	they often eat it too.

Your Answers:

Question	Line	Mistakes	Corrections
56			
57			
58			
59			
60			

SECTION C. READING (60 points)

Part 1. For questions 61-70, read the following passage and decide which option (A, B, C, or D) best fits each gap. Write your answers in the corresponding numbered boxes on your answer sheet. (10 points)

The notion of lifelong learning has gained momentum in the 21st century, particularly as economies shift towards knowledge-based models. Individuals are now expected not only to acquire formal qualifications, but also to demonstrate the (61) _____ to continually upgrade their skills.

This paradigm shift has altered how education systems operate. Institutions once focused solely on early academic achievement are being urged to promote adaptability and critical thinking, (62) _____ the unpredictability of future job markets. Employers, likewise, seek candidates who are proficient in learning autonomously – a trait that (63) _____ strongly with long-term professional success.

Nevertheless, not all learners have equal access to such opportunities. Socio-economic disparity remains a decisive factor, (64) _____ determines who benefits most from educational reforms. Some critics even argue that the emphasis on self-direction unfairly (65) _____ individuals who lack access to digital tools or stable learning environments.

One response to this challenge is the development of open learning platforms. These systems often incorporate interactive content and adaptive feedback, allowing learners to (66) _____ progress at their own pace while still receiving meaningful guidance.

Yet questions remain about their effectiveness. While such platforms increase access, they may also widen the achievement gap if learners are not (67) _____ prepared for independent study – a skill that traditional schooling does not always cultivate.

Furthermore, educational theorists continue to debate (68) _____ digital tools should complement or replace classroom instruction. What remains clear is that any reform must be inclusive, flexible, and firmly (69) _____ in pedagogical research rather than commercial interest.

Ultimately, as the nature of work continues to evolve, so too must our understanding of what it means to be educated – a concept far more nuanced than a degree (70) _____ on a wall.

- | | | | |
|-------------------------|-------------------------|---------------|----------------|
| 61. A. possibility | B. credibility | C. capacity | D. eligibility |
| 62. A. given | B. due to | C. on account | D. seeing |
| 63. A. accelerates | B. separates | C. correlates | D. advocates |
| 64. A. whom | B. which | C. that | D. what |
| 65. A. impairs | B. discourages | C. penalizes | D. undermines |
| 66. A. monitor | B. measure | C. moderate | D. manifest |
| 67. A. alertly | B. timely | C. finely | D. adequately |
| 68. A. the way by which | B. the point from which | | |
| | C. the extent to which | | |
| 69. A. framed | B. grounded | C. formed | D. based |
| 70. A. hung | B. which hang | C. is hung | D. to hang |

Your Answers:

61.	62.	63.	64.	65.
66.	67.	68.	69.	70.

Part 2. For questions 71-80, fill each blank with ONE suitable word. Write your answers in the corresponding numbered boxes on your answer sheet. (10 points)

In a world increasingly dominated by digital filters and curated realities, the pursuit of perfection has (71) _____ from a personal ambition into a cultural expectation.

Social media, in particular, has amplified this phenomenon, encouraging individuals to present an idealized version of their lives that often bears little resemblance (72) _____ reality. Perfectionism, once regarded as a harmless drive for excellence, is now being re-examined through a more critical lens. Psychologists warn that it is (73) _____ longer a benign trait, but rather a potentially debilitating mindset that fosters anxiety, procrastination, and burnout. Many individuals struggle to complete tasks (74) _____ fear that their work will fall short of an impossible standard. This relentless drive can be traced, in part, to societal pressures. People are often conditioned to conflate worth with achievement, to the (75) _____ that failure is not viewed as a stepping stone, but as a definitive verdict on one's character. In such a climate, mistakes are not just learning opportunities—they are liabilities to be (76) _____ at all costs. Ironically, the more one strives for flawlessness, the more one becomes susceptible to feelings of inadequacy. The gap (77) _____ who we are and who we believe we ought to be becomes a source of chronic discontent. A growing number of voices now advocate for a shift in perspective: from perfection to progress, from comparison to compassion. (78) _____ embracing imperfection, we reclaim the freedom to grow, fail, and try again—without shame. After all, it is often (79) _____ our flaws and stumbles that we forge authenticity. The pursuit of perfection may be seductive, (80) _____ it is in our humanity that we are most compelling.

Your Answers:

71.	72.	73.	74.	75.
76.	77.	78.	79.	80.

Part 3. For questions 81-90, read the following passage and circle the best answer to each of the following questions. Write your answers in the corresponding numbered boxes provided on your answer sheet. (15 points)

Exploring the Potential of Ocean Energy

In recent years, the oceans have been seen as a potential source of energy. Oceans are huge reservoirs of renewable energy, which have yet to be properly harnessed. Some estimates say that during the second decade of this century, ocean energy sources will generate more than 1,000 megawatts of electricity, which is enough to power a million homes in the industrialized world. Several technologies have been developed for exploiting these resources in a practical way, among which ocean thermal energy conversion (OTEC) is one of the most promising. Experimental OTEC plants have been constructed using different operating principles, although as yet no large-scale commercially **viable** plant has been launched.

The basic operation behind this system uses the heat energy stored in the oceans as a source of power. The plant exploits the difference in water temperature between the warm surface waters heated by the sun and the colder waters found at ocean depths. A minimum temperature difference of 20 degrees Celsius between surface and depth is required for efficient operation, and this situation is typically found only in tropical and subtropical regions of the world. There are two basic kinds of OTEC system, the open cycle system and the closed cycle system. In the open cycle system, the warm surface water is converted into steam in a partial vacuum and this steam drives a turbine connected to an electrical generator. In a closed cycle system, the warm surface water is used to boil a fluid, such as ammonia, which has a low boiling point. In both systems cold water pumped up from the ocean depths condenses the vapor. In the open system, the steam is condensed back into a liquid by cold water pumped from deep-ocean water and then discharged. In the closed system, the condensed ammonia is used to repeat the cycle continuously. Various hybrid systems using characteristics of both open and closed cycle plants have also been designed.

The OTEC system is potentially an important source of clean, renewable energy, which could significantly reduce our reliance on fossil fuels and nuclear fission. [A] Unlike other forms of renewable energy, such as those provided directly by the sun and wind, OTEC plants can generate power 24 hours per day, 365 days per year. Furthermore, the design of this technology avoids any significant release of carbon dioxide into the atmosphere. OTEC can offer other important benefits apart from power production. [B] Aquaculture is one important spinoff. [C] It may also be economically feasible to extract minerals from the pumped seawater. [D] Freshwater for drinking and irrigation is another by-product, and this will be an important advantage in regions where freshwater is limited.

Some drawbacks to this form of power generation have been noted. Perhaps the biggest drawback at present is present is the high capital cost of initial construction due mainly to the expense of the large pipeline used to pump water from 1,000 meters below the surface. Furthermore, the conversion of thermal to electrical energy in the OTEC system works at very low efficiency, which means that these plants will have to use a lot of water to generate practical amounts for the power grid. For this reason, the net power output is reduced; since a significant portion of the output must be used to pump water. **There are also potential ecological drawbacks, since the water discharges will change the water temperature and disturb some marine habitats.** This impact could, however, be minimized if the water is discharged at greater depths.

The main obstacle created by high initial expenses will have to be met before OTEC completes with conventional alternatives, and until such time, OTEC will remain

restricted to experimental plants. When technology permits lower start-up costs, this technology will make an important contribution to world energy requirements.

81. According to the passage, what can be inferred about the factor that allows the ocean to be used as an energy source?

- A. The oceans are vast enough to generate significant energy.
- B. In polar climates, the sun does not sufficiently heat the deeper water for practical energy use.
- C. The oceans can store vast amounts of heat energy to be used to run basic electricity plants.
- D. The plants are typically located in the tropical and subtropical regions of the world because of the warm weather.

82. The word “**viable**” in the paragraph 1 is closest in meaning to _____.

- A. impractical
- B. feasible
- C. optimistic
- D. irrelevant

83. According to the passage, in what way are the basic kinds of OTEC systems similar?

- A. They transform surface water into steam.
- B. They discharge unused water into the ocean.
- C. They utilize cold water to cause condensation.
- D. They convert water in a vacuum.

84. The phrase “**other forms**” in the paragraph 3 refers to energy produced through _____.

- A. fossil fuels and nuclear fission
- B. chemical reactions
- C. OTEC systems
- D. sun and wind

85. In paragraph 3, why does the author write about aquaculture and mineral extractions?

- A. To explain how using clean renewable energy can improve the environment.
- B. To demonstrate what other activities can be done in the ocean.
- C. To highlight the benefits of OTEC in regions of limited resources.
- D. To give examples of possible developments related to OTEC.

86. According to the passage, all of the following are problems with the OTEC system as a power-generating system EXCEPT _____.

- A. the costs of construction the power system
- B. the damage caused to fishing grounds
- C. the effect of discharged water on the environment
- D. the amount of water needed to produce a useful amount of electricity

87. The word “**conventional**” in the paragraph 5 is closest in meaning to _____.

- A. conservative
- B. traditional
- C. extravagant
- D. experimental

88. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? **There are also potential ecological drawbacks, since the water discharges will change the water temperature and disturb some marine habitats.**

- A. Water outflow temperatures could upset local marine life.
- B. Water discharges will disturb the ecology of the oceans.
- C. The OTEC system tends to negatively impact marine environments.
- D. Outflows of water will affect the ocean temperature at great depths.

89. Which of the following statements most accurately reflects the author's opinion about OTEC technology?

- A. OTEC will eventually meet the majority of the world's energy demands.
- B. The disadvantages of OTEC energy outweigh its advantages.
- C. Only very large OTEC plants can be made efficient.
- D. OTEC technology plays an important role in overall energy generation.

90. Look at the four squares [■] that indicate where the following sentence could be added to the passage.

“The nutrient-rich cold water is an excellent medium for growing phytoplankton, which provides support for various commercially exploitable fish and shellfish.”

Where would the sentence best fit? Choose the letter of the square that shows where the sentence should be added.

- A. [A]
- B. [B]
- C. [C]
- D. [D]

Your Answers:

81.	82.	83.	84.	85.
86.	87.	88.	89.	90.

Part 4. For questions 96-105, read the passage and do the following tasks. Write your answers in the corresponding numbered boxes on your answer sheet. (15 points)

Dementia - A spiralling public health crisis

A. Primarily affecting older people, dementia is the name given to several neurodegenerative diseases responsible for cognitive deterioration. The hallmark of the condition is memory loss and confusion, but depression, anxiety and behavioural problems are equally common for many people diagnosed. As the global population continues to age, we can expect the problem to worsen, with experts warning of a huge increase in dementia-related cases in developed countries. In the UK alone, 800,000 people are currently living with the devastating effects of the condition, with projections suggesting this number could rise to a staggering 1.6 million by 2040.

Therefore, providing appropriate care, support and treatment remains a top priority for policy makers who will soon be facing a public health crisis.

B. The exact cause of dementia is poorly understood by the scientific community, but, together with some lifestyle factors, age remains the greatest risk factor. However, several psychological elements may also play an important role, and increasingly the link between emotional suffering and dementia is being made. The influence of personality characteristics is one area receiving much attention. For example, being overly negative or having high anxiety levels appear to increase a person's risk of developing the condition — highlighting the importance of adopting a more positive outlook on life. Additionally, a history of depression may predispose a person to the condition. There is even some evidence to suggest that, if a person experiences multiple depressive episodes throughout life, their risk of dementia is even greater. While the exact processes taking place here are unclear, one explanation relates to the cortisol hormone — a type of hormone released when a person experiences stress. Some believe this causes damage to the brain responsible for issues with cognition. This suggests a need to develop effective medication to help stop the release of this potentially harmful hormone for people at risk. Equally, more focus is needed to ensure psychological treatment is more widely accessible for people with mental health issues, as successfully managing depressive symptoms when they occur may halt the development of dementia in later life.

C. Given the unpleasant side effects of some medication, the use of psychotherapy in alleviating symptom burden is very promising. In care homes for the elderly, it is estimated that 80% of residents experience dementia to some degree and therefore the effectiveness of such therapies has been widely investigated in this setting. Several have been developed to include a reminiscence component — where the person reflects on their past in a therapeutic context. This is often done with the use of pictures or objects to aid memory recall, and in some cases family members are present. Such therapies have been shown to reduce depression, bolster self-esteem and even help the individual maintain a sense of identity. The added benefit is that potentially any health care professional can be easily trained to deliver these therapies, thereby increasing availability. There is evidence of the usefulness of such treatment and its positive impact on well-being, yet these therapies are not appropriate for those with more advanced stages of dementia, as memory recall may be too difficult and therefore cause distress. Likewise, a more severe decline in cognition may mean a person is unable to communicate at the level required for these therapies to be successful.

D. The debilitating nature of dementia not only has a profound effect on the individual, but also on family members, who often undertake the role of informal caregiver — a

person responsible for personal care needs. As the condition mainly affects older people, the caregivers themselves are often elderly, and therefore more likely to suffer age-related illness. The physical and psychological demands of caring are challenging, which means caregiver burden is high. Stress and depression are common among carers who often overlook their own health needs due to their caregiving responsibilities. Moreover, having less time to engage in previously enjoyed hobbies and interests can also take a toll on overall well-being. Despite this, many do gain a huge sense of satisfaction from their role, and value the opportunity to care for their loved one during their time of need. The involvement of family members in the care of people with dementia is an important one, as it saves the government billions in care-related costs each year.

E. With no cure, and the number of cases set to rise, more prominence needs to be given to methods of prevention; indeed, many cases of dementia are avoidable if simple lifestyle modifications are made. Obesity, together with the consumption of an unhealthy diet, are further risk factors, therefore eating well and taking regular exercise throughout life should be promoted. The use of psychology is further reinforced, as health psychologists play a significant role in helping people achieve this via health promotion initiatives. Other methods to ward off a decline in cognitive performance, such as crosswords and continued learning, particularly in old age, are considered important in helping to maintain the brain's ability to function normally for longer. Perhaps most importantly, people should be encouraged to maintain strong interpersonal relationships throughout life. An integral part of being human is the need and desire to interact with others; as social beings, if this need is not met, people are at risk of their psychological health being eroded. As loneliness continues to be one of the biggest modern-day social issues, achieving this is a challenge. Given the combination of factors which may result in dementia, tackling the problem from several angles is proposed.

Questions 91-95 The Reading Passage has five paragraphs, A—E.

Choose the correct heading for the paragraphs from the list of headings below.

List of Headings

- i. The relationship between emotion and illness
- ii. Struggling with overwhelming duties
- iii. Current views on effective caregiving
- iv. Promoting avoidance
- v. The role of the clinical psychologist
- vi. The alarming rate of dementia
- vii. Methods to increase life expectancy

viii. Non-pharmaceutical treatment and its effectiveness

91. Paragraph A _____

92. Paragraph B _____

93. Paragraph C _____

94. Paragraph D _____

95. Paragraph E _____

Questions 96–100: Do the following statements agree with the information in the passage?

Write:

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

96. The anticipated rise in dementia cases is largely attributed to increasing life expectancy rather than improvements in diagnostic techniques.

97. High levels of cortisol are conclusively proven to be a primary biological cause of dementia.

98. Psychological interventions may contribute not only to symptom management but also to delaying the onset of dementia.

99. Reminiscence therapy is considered unsuitable primarily because it can intensify negative emotions in all dementia patients.

100. Despite the challenges involved, informal caregivers generally experience more positive than negative effects from their role.

Your Answers:

91.	92.	93.	94.	95.
96.	97.	98.	99.	100.

Part 5. The passage below consists of five sections marked A-E. For questions 101-110, read the passage and do the task that follows. Write your answers (A-E) in the corresponding numbered boxes provided. (10 points)

Vacuum Trains: Space-Age Travel on Earth

Vacuum trains work on a very simple principle of physics, namely, it's easier to move an object through a vacuum than it is through a medium, such as air. Are vacuum trains the future of travel?

A. When compared to the many other scientific and technological advances of the late 20th and early 21st centuries, it could be said that little progress has been made in the field of mass transit systems. But for Concorde, the turbo-jet powered airplane which retired due to budgetary concerns in 2003, and the bullet trains of Japan, little has

changed in the way that groups of people travel to far-off destinations. By and large, we still use the same transport technologies and travel at the same speeds to those of fifty years ago. In times of scientific and technological sluggishness, it's often best to permit 'blue-sky' thinkers to take the stage. One such individual whose creative thinking was not limited by current wisdom or beliefs was the American physicist Robert H. Goddard (1882-1945). Known as the father of modern rocket propulsion, Goddard was often mocked during his lifetime for the seemingly pie-in-the-sky nature of his proposals. The ridicule caused Goddard to become increasingly reticent about the nature of his work over the course of his career; so much so that many of his designs did not come to light until after his death. Among Goddard's revolutionary ideas was one for a high-speed train known as vacuum tube train, or 'vactrain' for short.

B. The central rationale behind a vactrain as conceived by Goddard in the 1910s, is that trains could travel considerably faster and use up appreciably less energy if they were not held back by air resistance. A conventional train pushes a wall of air ahead of it and in doing so causes an area of low pressure to form behind it. Both these phenomena end up 'pulling' the train back and necessitate huge amounts of energy to be expended in order to counteract the forces. But by placing a train line within a sealed tunnel and voiding the tunnel of all air (i.e. creating a vacuum), this rolling resistance is nullified. The sealed tunnel can be placed above ground or even in underground bored rock, the latter hypothetically enabling cross-oceanic travel at speeds once thought the sole domain of science fiction. Such technology has the potential to unequivocally supplant the aircraft as the world's fastest mode of mass transit. Goddard's early designs, for instance, proposed the possibility of travelling from Boston to New York in just 12 minutes at speeds averaging around 1,000 mph (1,600 km/h). In actual fact, by combining vactrain technology with another form of technology known as maglev, such trains could travel a great deal faster.

C. Maglev (short for magnetic levitation) trains are trains that float on a bed of magnets thus negating the recurrent friction that conventional trains experience from running on tracks using mechanical apparatuses such as wheels, axles and bearings. By causing the train to, in effect, fly along its route, albeit just inches from the surface of a magnetic line, maglev trains can travel at speeds of up to 361 mph (581 km/h). Maglev trains are currently operational (albeit in small numbers) in Japan, Korea and China. Although still a nascent venture, they have not as yet proved to merit any undue concerns in terms of safety. But what if a maglev train was placed within a vacuum? Some believe such trains could reach speeds of more than 4,000 km/h, allowing passengers to travel from Europe to North America in under an hour.

D. Certainly, much interest has been shown by scientists and innovators eager to cash in on the 'next big thing'. Indeed, several patents have already been taken out proposing various uses for the merger of vactrain and maglev technologies. One scientist in the front line of such research is American engineer, Daryl Oster, who holds a patent for what he calls 'Evacuated Tube Transport' (ETT). Oster's proposes using relatively small six-person automated capsules that could travel up to 4,000 km/h on maglev lines within vacuumed tunnels. His research has piqued the interest of the Chinese government who acquired a license to use ETT technology in combination with their own pre-existent maglev research. According to Oster, the world could be using ETT for world travel within the next 10 years.

E. So, is ETT really a feasible transportation technology for the future? Some put paid to the idea because of its prohibitive cost. For instance, a hypothetical underground ETT line from Los Angeles to New York City would cost an estimated US\$1 trillion, with an elevated surface level alternative only lessening the brunt of the cost by a third. Hence, the apathetic response most governments, bar the Chinese government perhaps, give to ETT proposals. But some futurologists point to the mother of all invention: necessity. The carbon footprint of current mass transit systems is considerable and must be reduced. Fossil fuels deposits are dwindling and energy-efficient alternatives will soon be required. Vactrains run entirely on electricity so there would be no carbon footprint whatsoever. Thus, while construction would be expensive, supporters of ETT technology emphasise the long-term cost-effectiveness of the venture - in terms of the environment, energy usage, and the economic advantages attainable by a world having a speedier mass transit infrastructure. Still, it remains to be seen who, if anyone, will take the plunge. ETT technology could well remain just a pipe dream.

In which section is the following mentioned?

- 101. an instance in which an individual felt averse to divulge certain information
- 102. the potential of a means of transport to carry cargo at high speeds
- 103. the necessity to overhaul contemporary transit systems
- 104. an instance in which an individual underestimated the potential of a technology
- 105. a means of transport which has recently been put to public use
- 106. a collaborative effort at developing rapid transit technology
- 107. the view that contemporary transports systems are underdeveloped
- 108. uncertainty as to whether funds will be available to finance a project
- 109. the potential of a technology to surpass conventional expectations
- 110. the extent to which a proposed transit system could reduce ecological damage

Your answers:

101.	102.	103.	104.	105.
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Part 2. (30 points)

Some people believe that artificial intelligence should be allowed to evolve freely, while others argue that strict regulations are necessary to prevent misuse. Discuss both views and give your own opinion.

Write an essay of about 250 words to answer the above question. Give reasons and include any relevant examples and explanations to support your answer.

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