

## **READING COMPREHENSION (PASSAGES)**

**1. Read the passage given below and answer the questions that follow. 12 Marks**

### **The Discovery of Penicillin**

1. The Scottish bacteriologist Dr Alexander Fleming (1881-1955) is credited with the discovery of penicillin in London in 1928. He had been working at St Mary's Hospital on the bacteriology of septic wounds. As a medic during World War I, he had witnessed the deaths of many wounded soldiers from infection and he had observed that the use of harsh antiseptics, rather than healing the body, actually harmed the blood corpuscles that destroy bacteria.

2. In his search for effective antimicrobial agents, Fleming was cultivating staphylococcus bacteria in Petri dishes containing agar. Before going on holiday in the summer of 1928, he piled up the agar plates to make room for someone else to use his workbench in his absence and left the windows open. When he returned to work two weeks later, Fleming noticed mould growing on those culture plates that had not been fully immersed in sterilising agent. This was not an unusual phenomenon, except in this case the particular mould seemed to have killed the staphylococcus aureus immediately surrounding it. He realised that this mould had potential.

3. Fleming consulted a mycologist called C J La Touche, who occupied a laboratory downstairs containing many mould specimens (possibly the source of the original contamination), and they concluded it was the Penicillium genus of ascomycetous fungi. Fleming continued to experiment with the mould on other pathogenic bacteria, finding that it successfully killed a large number of them. Importantly, it was also non-toxic, so here was a bacteria-destroying agent that could be used as an antiseptic in wounds without damaging the human body. However, he was unsuccessful in his attempts to isolate the active antibacterial element, which he called penicillin. In 1929, he wrote a paper on his findings, published in the British Journal of Experimental Pathology, but it failed to kindle any interest at the time.

4. In 1938, Dr Howard Florey, a professor of pathology at Oxford University, came across Fleming's paper. In collaboration with his colleague Dr Ernst Chain, and other skilled chemists, he worked on producing a usable drug. They experimented on mice infected with streptococcus. Those untreated died, while those injected with penicillin survived. It was time to test the drug on humans but they could not produce enough – it took 2,000 litres of mould culture fluid to acquire enough penicillin to treat a single patient. Their first case in 1940, an Oxford police officer who was near death as a result of infection by both staphylococci and streptococci, rallied after five days of treatment but, when the supply of penicillin ran out, he eventually died.

5. The standardization and large-scale production of the penicillin drug during World War II and its availability for treating wounded soldiers undoubtedly saved many lives. Penicillin proved to be very effective in the treatment of pneumococcal pneumonia – the death rate in World War II was 1% compared to 18% in World War I. It has since proved its worth in the treatment of many life-threatening infections such as tuberculosis, meningitis, diphtheria and several sexually-transmitted diseases.

6. Fleming has always been acknowledged as the discoverer of penicillin. However, the development of a commercial penicillin drug was due to the skill of chemical scientists Florey, Chain and others who overcame the difficulties of converting it into a usable form.

**Based on your understanding of the passage, answer the questions given below.**

**i. What prompted Dr Alexander Fleming to search for antimicrobial agents? 2**

**ii. The mould growing on the culture plates in Fleming's lab \_\_\_\_\_ . 1**

- a. had the potential to kill the staphylococcus bacteria
- b. had the potential to cultivate staphylococcus bacteria
- c. had no influence on any bacteria
- d. had nothing to do with penicillin

**iii. Identify the option similar in meaning of the word 'non-toxic' given in paragraph – 3. 1**

- a. adulteration                      b. pollution                      c. detoxification                      d. non-poisonous

**iv. State two characteristics of the mould which Fleming observed. (40 words) 2**

**V. Complete the following statement with a relevant idea from paragraph – 3. 1**

That hard work sometimes results in a setback is evident from the fact that\_\_\_\_\_.

**vi. Those untreated died, while those injected with penicillin survived refers to \_\_\_\_\_ . 1**

- a. soldiers who fought in World War I                      b. Oxford police officer and people like him  
c. Mice                      d. Chemists

**vii. Why was it a mammoth task to produce penicillin drug initially? 1**

**viii. Which instance in the passage makes it evident that shortage of penicillin resulted in fatality? 1**

**ix. How has penicillin proved its worth in the field of medicine? (40 words) 2**

**2. Read the passage given below and answer the questions that follow. 12 Marks**

1. Ammon means "fragrant spice plant" in Arabic and Hebraic and in Italian, canella means "little tube". These are a few of the many terms given to the popular spice known as cinnamon. Dating back as far as 2800 B.C., Chinese writings describe cinnamon as an important part of the culture, so much so that over the years this spice was traded right up there with silver. Nowadays we find it in sweetened cereals, baked goods and sprinkled on various foods such as yoghurt. Yet, many do not consider its wealth of healing capabilities including the potential as a weight loss remedy.

2. Cinnamon is derived from the inner bark of the cinnamon tree grown and harvested mostly in Sri Lanka but also found in Brazil, Indonesia, Vietnam, China and Burma. After a cinnamon tree grows for about six to eight years it is cut down leaving a stump to allow it to grow again making it a very sustainable practice. It is then stripped from the bark, dried and packaged as sticks for export.

3. Several studies have been published regarding the weight loss properties of cinnamon which include its unique ability to be used for type 2 diabetes which is a disease often resulting from obesity. When eaten, the spice seems to slow down glucose absorption within the intestines while stimulating insulin production. This normalizes blood glucose levels which in turn can indirectly decrease weight gain.

4. "The results of study demonstrate that intake of 1, 3 or 6 g of cinnamon per day reduces serum glucose, triglyceride, LDL cholesterol and total cholesterol in people with type 2 diabetes and suggest that the inclusion of cinnamon in the diet of people with type 2 diabetes will reduce risk factors associated with diabetes and cardiovascular diseases".

5. A study from the Department of Family and Consumer Sciences, called "Effect of ground cinnamon on after-meal blood glucose level in normal-weight and obese adults" found that cinnamon may be effective in moderating post-meal glucose level in normal weight and obese adults.

6. Columbia University nutritionist Tara Ostrowe comments to Reader's Digest on the benefits of this spice: "Cinnamon really is the new skinny food ...Scientists already credit cinnamon with helping lower blood sugar concentration and improving insulin sensitivity. When less sugar is stored as fat, this translates into more help for your body when it comes to weight loss".

7. Talk to your doctor about adding cinnamon daily into your healthy diet and exercise program. Add it to your tea, oatmeal, fruit, toast or anything else you can think of, as a small amount will go a long way and potentially assist in your weight loss mission.

**Based on your understanding of the passage, answer the questions given below.**

**i. Cinnamon is called \_\_\_\_\_ in Hebraic.**

**1**

- a. little tube                      b. canella                      c. Ammon                      d. a fragrant spice plant

**ii. In 'Yet, many do not consider its wealth of healing capabilities' the writer refers to the word 'wealth' to \_\_\_\_\_ .**

**1**

- a. the payment in silver                      b. the cost of cinnamon  
c. health of people                      d. the healing power of cinnamon

**iii. An expression opposite in meaning to 'sustainable' is \_\_\_\_\_ .**

**1**

- a. short lived                      b. which can be continued for long  
c. interesting                      d. insupportable

**iv. What benefits of cinnamon do you consider will improve people with diabetes? Discuss in about 40 words.**

**2**

**v. How does cinnamon help fitness conscious people?**

**1**

**vi. How is cinnamon got? What is amazing about the growth of a cinnamon tree? (40 words)**

**2**

**vii. How do Chinese associate cinnamon with culture?**

**1**

**viii. Cinnamon is essential for a healthy diet. Support this statement with ideas from the passage.**

**2**

**ix. How does cinnamon attract youngsters?**

**1**

**3. Read the passage given below and answer the questions that follow. 12 Marks**

Amelia was an amateur astronomer who spent her nights gazing at the stars through her trusty telescope. The night sky was her sanctuary, a place of endless wonder where she often found solace and inspiration. Tonight, she was particularly excited because a rare celestial event was about to occur—a meteor shower that happened only once every decade. She had read about it in her cherished astronomy books and marked her calendar for this special night. As she peered through her telescope, a streak of light illuminated the darkness. The meteor shower had begun. Amelia marveled at the beauty of nature's fireworks display as meteors streaked across the heavens, leaving shimmering trails of stardust in their wake. Each meteor felt like a cosmic brushstroke on a vast canvas. She felt a deep connection to the cosmos, a sense of being part of something much larger than herself.

Amelia's passion for astronomy had grown over the years. She had joined a local astronomy club, attended stargazing parties, and even given talks at schools about the wonders of the universe. The night sky had become a canvas where she painted her dreams and shared her knowledge with others. It was not just a hobby; it was her life's purpose.

The meteor shower reached its peak, and the sky was alive with celestial activity. Amelia's telescope captured the breathtaking scene, and she couldn't help but feel a sense of fulfillment. She had pursued her passion, often against the skepticism of others, and it had rewarded her with a front-row seat to one of the universe's grand spectacles.

As the meteor shower waned and the last streak of light vanished into the darkness, Amelia felt a bittersweet mix of emotions. The event she had eagerly anticipated was over, but the memories and the sense of awe it had instilled in her would stay with her forever. In those fleeting moments, she had felt closer to the cosmos than ever before, and she knew that her journey under the stars would continue, for there was always something new to discover in the boundless expanse of the universe.

Amelia's story became an inspiration to many, proving that pursuing one's passion, no matter how niche or unconventional, could lead to a lifetime of wonder and fulfillment. The night sky, which had once been her personal sanctuary, had become a beacon for others to explore the

mysteries of the universe. She welcomed newcomers to the astronomy club and shared her knowledge, igniting their curiosity about the cosmos.

The meteor shower of that night had not only painted the sky with streaks of light but had also illuminated the path of countless dreamers who, like Amelia, sought to uncover the secrets of the night sky. It was a reminder that the universe had much more to offer to those who were willing to look up and wonder.

**Based on your understanding of the passage, answer the questions given below.**

**i. Select the option that best characterizes Amelia's emotions and motivations as she gazes at the meteor shower.** **1**

- |                            |                                   |
|----------------------------|-----------------------------------|
| a. Fear and trepidation    | b. Awe and fulfillment            |
| c. Disinterest and boredom | d. Frustration and disappointment |

**ii. What is the significance of the night sky for Amelia?** **1**

- |                                      |   |
|--------------------------------------|---|
| a. It is a place of fear and danger. | b. It is a canvas for her dreams.             |
| c. It is a source of boredom.        | d. It is a place to escape from her problems. |

**iii. Share evidence from the text, in about 40 words, to support the view that the writer's writing style is descriptive and evocative.** **2**

**iv. Complete the sentence appropriately with a characteristic or its description. Based on the information given in the excerpt.** **1**

Amelia's passion for astronomy can be described as \_\_\_\_\_.

**v. Select the option that is similar in meaning to "The night sky was her sanctuary."1**

- |                                     |                                 |
|-------------------------------------|---------------------------------|
| a. The night sky was her prison.    | b. The night sky was her home.  |
| c. The night sky was her workplace. | d. The night sky was her enemy. |

**vi. Explain, in about 40 words, how the passage conveys a sense of Amelia's deep connection to the cosmos.** **2**

**vii. In the line, "As she peered through her telescope, a streak of light illuminated the darkness," what atmosphere or mood is created by the phrase "illuminated the darkness"? **1****

**viii. How does the following, impact the reader?. Answer in 40 words.** **2**

"The meteor shower had begun. Amelia marveled at the beauty of nature's fireworks display as meteors streaked across the heavens, leaving shimmering trails of stardust in their wake

**ix. Read the five headlines 1 to 5 , given below:** **1**

1. "Astronomy Enthusiast Witnesses Rare Meteor Shower"
2. "Amelia's Lifelong Journey Under the Stars"
3. "Local Astronomy Club Welcomes New Members"
4. "The Night Sky: A Source of Fear or Wonder?"
5. "Meteor Shower Event Draws Crowds from Near and Far"

Identify the option that displays the headline/s that corresponds with occurrences in the passage.

- |           |            |           |            |
|-----------|------------|-----------|------------|
| a. Only 1 | b. 1 and 2 | c. Only 3 | d. 1 and 5 |
|-----------|------------|-----------|------------|

**4. Read the passage given below and answer the questions that follow. 10 Marks**

1. In recent years, the realm of communication has undergone a profound transformation, shaped by the relentless march of technology. The advent of social media platforms, messaging apps, and digital connectivity has not only redefined how individuals interact but has also blurred the lines between personal and professional communication. To better understand the shifting landscape of communication preferences, a comprehensive survey was conducted among a diverse group of adults aged 25-40. The survey aimed to explore their

choices and recorded the percentage variation for 10 key factors that influence these preferences.

2. Among those who favor face-to-face communication, a deep-seated yearning for genuine, in-person connections emerged as the primary motivation (55%.. The ability to interpret and respond to non-verbal cues was a close second, with 48% of respondents valuing this aspect. Furthermore, those who favored face-to-face communication extolled the intimate and profound nature of conversations (42%., which often led to meaningful and lasting connections. Many cited the opportunity to establish trust more effectively (36%. as a defining characteristic of this mode of interaction.

3. In contrast, digital communication enthusiasts cited convenience and speed as their primary reasons for favoring this medium (58%.. The ability to keep a record of conversations for future reference was another key factor (50%.. The prospect of reaching a broader audience through digital means resonated with 44% of respondents. Moreover, digital communication provided the unique ability to multitask, enabling individuals to engage in multiple conversations concurrently (32%..

4. Interestingly, both groups shared common ground when it came to privacy and security concerns. A

substantial 45% of face-to-face communicators and 42% of digital communicators were equally focused on ensuring that their communications remained private and secure. Similarly, both groups held dear the freedom to express themselves openly (38% for face-to-face communicators and 35% for digital communicators..

5. Nonetheless, significant disparities existed between the two groups. Face-to-face communicators prioritized the formation of personal connections and relationships (40%. to a greater extent than their digital counterparts (25%.. In contrast, digital communicators valued efficiency and the ability to get things done (30%., which outweighed similar considerations among face-to-face communicators (18%..

6. The survey findings reveal a complex tapestry of communication preferences. They suggest that both face-to-face and digital communication have distinct advantages that cater to different preferences and priorities, reflecting the multifaceted nature of human interaction in today's interconnected world.

**Based on your understanding of the passage, answer the questions given below.**

**i. Infer two possible ways that the survey, mentioned in paragraph (1 could be beneficial.** **1**

**ii. Which communication choice point of the survey would influence technology companies to enhance their messaging apps with features like read receipts and message archiving?** **1**

- a. Ability to maintain a record of conversations
- b. Desire for genuine, in-person connections
- c. Privacy and security concerns
- d. Building personal connections and relationships

**iii. What do the top choices in the survey, for face-to-face and digital communication, suggest about communication preferences among adults aged 25-40?** **2**

**iv. Identify the face-to-face communicator from the following three individuals.** **1**

- a. Sarah - I prefer texting because I can respond while I'm at work or on the go.
- b. John - I enjoy meeting people in person, understanding their body language and expressions.
- c. Emily - I use video calls for important conversations; it feels more personal.

**v. Which of the following is an example of an advantage of digital communication mentioned in paragraph - 2?** **1**

- a. Ability to express oneself freely
- b. Ability to multitask and manage multiple conversations
- c. Reading non-verbal cues
- d. Building personal connections and relationships

**vi. How might the differences in communication priorities between face-to-face and digital communicators impact the way companies develop new communication tools and platforms?** 2

**vii. The similarities in the percentage of both face-to-face and digital communicators interested in maintaining privacy and security in their communications may be due to \_\_\_\_\_.** 1

**viii. The title, "The Changing Landscape of Communication Preferences Among Adults Aged 25-40," is appropriate for this passage. State TRUE or FALSE:** 1

**5. Read the passage given below and answer the questions that follow. 10 Marks**

1. A large majority of the elderly in India does not get long-term and palliative care, revealed a study conducted for the United Nations. The survey of more than 10,000 respondents across Northern, Southern, Western, Eastern and Central India during May-June 2018, showed that 62.1% of the elderly did not get such care. More than half of these people, 52.4%, said they primarily need traditional family support, says a study by Age well Research and Advocacy Centre.

2. Older people in India often face problems such as disability, restricted mobility, loneliness, poverty and lack of awareness on accessing old-term care. With a fast growing population of older people, the ever increasing gap between generations and the fast and demanding lifestyle of young people, for a majority of older people, life is still a struggle for independence.

3. "According to 64% of elderly respondents, loneliness, marginalisation and isolation are the most critical issues faced by bedridden, elderly patients as they cannot visit, meet or interact with their relatives, friends and neighbours," said Himanshu Rath, founder of Age well Foundation.

4. The elderly have to compromise and make adjustments in their lifestyle according to the wishes of the younger members of their families to ensure they are cared for, the study revealed. It highlighted that

67.6% of the elderly being taken care of their family members have to look after the children of the families. They have to perform tasks such as babysitting in return for proper care and support.

5. "Around 73.7% said they have to take care of the house and other properties of their younger family members to ensure long-term and palliative care in old age", the study report said. "Over 75% of respondents have to limit their personal social interactions as their family members direct them to do so, otherwise their family members can avoid providing their basic needs of food and medicines." "Most elderly respondents (68.5%) said breaking up of the joint family system is one of the biggest factors for the challenges they face in getting long-term palliative care.

6. Healthcare equipment such as wheelchairs, relief material such as adult diapers and care-giving service should be provided on a regular basis to destitute older people, who are bedridden and suffering from acute mobility issues, the report said.

"Though providing long-term and palliative care to older persons comes in the purview of family responsibilities in India, it is observed that older persons, who are financially independent, have a high net worth or hold property entitlements, are treated comparatively well by their family members" said Rath.

7. "Managing home care for the elderly is a massive challenge as multiple service providers-nursing agencies, physiotherapists and medical suppliers-are small scale and unorganised and, therefore, provide incomplete care," he said. "In India, health insurance coverage is essentially limited to hospitalisation. The concept of geriatric care has remained a neglected area of medicine so far in the country."

**Based on your understanding of the passage, answer the questions given below.**

**i. List two essential requirements for older people suffering from mobility issues. 2**

**ii. Select the option that displays the reason behind financially independent elderly being better off.** **1**

- a. They are seen as one to be revered.
- b. They are treated with much more care and respect.
- c. They have money to meet their financial needs.
- d. They have medical expenses.

**iii. According to the passage, what do you think is the primary need of all the elderly people in India?** **1**

**iv. According to the study, long-term and palliative care comes under the purview of \_\_\_\_\_.** **1**

a. government responsibilities                      b. liabilities                      c. social responsibilities

**v. Select the option that displays the most likely reason for stating that older people who live with family are no better.** **1**

- It is so because \_\_\_\_\_.
- a. they have additional burden of responsibility
  - b. they have no one who loves or cares for them
  - c. they also suffer from loneliness
  - d. All of the above

**vi. State a point to challenge the given statement.** **2**

Joint Family System along with the need for private space has brought challenges to the long term elderly care.

**vii. Complete the given sentence with an appropriate inference from the last paragraph of the passage.** **1**

The concluding paragraph of the passage makes a clear case for \_\_\_\_\_.

**viii. State whether the given statement is TRUE or FALSE.** **1**

In order to get proper care and support, the old people have to adjust their lifestyle as per the wishes of their children.

**6. Read the passage given below and answer the questions that follow.      10 Marks**

1. Competition, deregulation, and intervention are all crucial to South Africa's Road to a true broadband infrastructure. As of this year, SA had some 67,000 ADSL subscribers. This represents about 0.4% of the worldwide total, and supports the statement that SA remains, and will remain, way behind the rest of the world for a long time to come.
2. Broadband penetration in households varies globally, with Korea being the world leader with a penetration of 68%, the USA having 28%, and the UK 16%. SA shamefully has a broadband household penetration of 0.3%. The question posed here is why South Africa is so far behind... The answer lies not, in the unavailability of the technology, but simply in the pricing. Many people think that Telkom's ADSL solution is one-step closer to a true broadband solution in this country. However, many industry specialists disagree.
3. "Telkom's ADSL offerings are great; however, they just cost too much, and are not viable solutions for many home users," says Dave Gale, business development manager at Storm. "South Africa's broadband costs may be the butt of global jokes, but to local users, especially individuals, schools, small businesses and current ADSL users, the affordability factor just makes one's blood boil," says Michelle Branco; product-marketing manager at Internet Solutions.
4. According to Elia Tsouros, an executive at UUNET, the broadband penetration in SA is abysmal compared to that of other countries. One contributing factor is Telkom's pricing structure, and, the fact that SA is so large, and has such a distributed population. The ramifications are vast - a slowing down of broadband uptake; a barrier for educational institutions; limitation for learners to gain access to the Internet; poor response times for researchers; limited business and marketing opportunities and the list goes on. The absence of

a wholesale facilities leasing regime for ADSL in South Africa makes it difficult for ISPs to get a significant portion of the ADSL revenue. ISPs are not entitled to ADSL line rentals at wholesale prices, and thus subscribers have to rent the line directly from the incumbent, Telkom. This then further negates the opportunity for ISPs to bundle value-added offerings, such as video and voice services with the ADSL line. Coupled with the high cost of line rentals is that of international bandwidth.

Telkom international bandwidth charges on the SAT-3 cable are very high, and it is common knowledge that even though both Telkom and British Telecom's purchase their bandwidth from the same supplier; Telkom marks up its costs by 80%, and British Telecoms by only 20%.

5. Roman Hough, product development manager at M-Web Business, says that Icasa should have the power to audit how much Telkom charges for the cable.

**Based on your understanding of the passage, answer the questions given below.**

**i. Suggests two possible reasons in about 40 words behind the statement, 'SA remains, and will remain, way behind the rest of the world for a long time to come.' 2**

**ii. Which hindrances contribute to the broadband infra of SA? 2**

- |                               |   |
|-------------------------------|---|
| a. Huge population            | b. Competition, interference and irregularity |
| c. Unaffordability of telecom | d. Lack of video services                     |

**iii. Justify the statement, 'a barrier for educational institutions : What does the speaker want to convey? 1**

**iv. Select the correct statement. 1**

- a. Small businesses and the common users can afford broadband width easily.
- b. In the absence of getting revenue, ISP's have to pay the rent directly for the Telkom.
- c. Telkom and the British Telecom purchase the bandwidth from the same supplier.

**v. Which of the following country has become the second most powerful country in terms of computation? 1**

- |          |          |        |                |
|----------|----------|--------|----------------|
| a. India | b. Korea | c. USA | d South Africa |
|----------|----------|--------|----------------|

**vi. Based on the understanding of the above extract, suggest any similarity or dissimilarity between Telkom and British Telecom. Answer in about 40 words. 2**

**vii. Complete the sentence appropriately. 1**

As the population of SA is so large, the perception of broadband has become \_\_\_\_\_ when we compare to rest of the countries.

**viii. State TRUE or FALSE. 1**

The title, 'What caused the decline of South Africa, is appropriate for this passage.