

## I. LISTENING (5.0 points)

### HƯỚNG DẪN PHẦN THI NGHE HIỂU

- Bài nghe gồm 4 phần; mỗi phần được nghe 2 lần, mỗi lần cách nhau 10 giây; mở đầu và kết thúc mỗi phần nghe có tín hiệu.
- Mở đầu và kết thúc bài nghe có nhạc hiệu. Thí sinh có 02 phút để hoàn chỉnh bài trước nhạc hiệu kết thúc bài nghe.
- Mọi hướng dẫn cho thí sinh đã có trong bài nghe.

**PART 1: You will hear an extract from an interview in the podcast "How Gen Z and TikTok are changing the way we speak". Listen to the interview and answer the questions below.**

**For questions 1–5, decide whether the following ideas are mentioned by only one interviewee or by both.**

**Write:**

- **M** if the idea is mentioned by the male interviewee only
  - **F** if it is mentioned by the female interviewee only
  - **B** if it is mentioned by both interviewees.
1. A communication habit influenced by platforms like TikTok
  2. A pronunciation trend that weakens the boundary between dialects
  3. A linguistic transformation where nouns are turned into verbs
  4. A belief that future generations will invent unfamiliar expressions
  5. A concern that digital influence may contribute to language extinction

**PART 2: You will hear a short academic report about the history of medicine. Match each item in Column I (6–10) with one statement from Column II (A–J).**

Column I	Column II
<ol style="list-style-type: none"><li>6. Ancient Egypt</li><li>7. Hippocrates</li><li>8. Islamic scholars</li><li>9. The 19th century</li><li>10. The 21st century</li></ol>	<ol style="list-style-type: none"><li>A. Advocated hygiene as a way to reduce infection in hospitals.</li><li>B. Laid the groundwork for understanding the circulation of blood.</li><li>C. Preserved and translated ancient medical knowledge while advancing surgical techniques.</li><li>D. Saw rapid medical advancement due to scientific methods and imaging technologies.</li><li>E. Produced early written records on treating illness using herbs and rituals.</li><li>F. Emphasized the spiritual over scientific approaches to healing.</li><li>G. Explored how environmental and lifestyle factors contributed to illness.</li><li>H. Developed personalized treatments based on a person's genetics and habits.</li><li>I. Performed dissections to better understand internal human anatomy.</li><li>J. Developed antiseptics and the first antibiotics to cure infections.</li></ol>

**Part 3. For questions 11–15, listen to a talk about coral bleaching and write the letter A, B, C, or D in the numbered boxes provided to indicate the correct answer to each of the following questions according to what you hear.**

11. What role do zooxanthellae play in coral reefs?
- A. They act as a protective barrier for corals against environmental threats.
  - B. They are bacteria that purify the water surrounding coral ecosystems.

- C. They supply energy to corals through photosynthesis in exchange for shelter.  
 D. They feed on coral tissue and absorb sunlight to regulate temperature.
12. What happens when ocean temperatures rise significantly?  
 A. Corals migrate to deeper and cooler ocean layers.  
 B. The algae exit the coral, resulting in color loss.  
 C. Corals absorb more sunlight to maintain energy production.  
 D. The water becomes too acidic for coral structures to survive.
13. What is the long-term consequence if warm conditions persist?  
 A. Coral colonies become more adaptive and self-sustaining.  
 B. Algae reproduce rapidly and overpopulate the reef.  
 C. The coral's energy source is depleted, leading to potential death.  
 D. Bleached corals recover naturally without intervention.
14. Which of the following is NOT mentioned as a reason coral reefs are important?  
 A. They regulate atmospheric carbon levels globally.  
 B. They host a large proportion of marine species.  
 C. They offer both economic and environmental value.  
 D. They occupy a small area but support immense biodiversity.
15. What can be inferred from the speaker's message?  
 A. Coral reefs will vanish within decades, no matter what conservation is attempted.  
 B. Future coral conservation depends heavily on combating ocean temperature rise.  
 C. All coral species are already resistant to changes in their environment.  
 D. Coral bleaching events are mostly caused by natural geological cycles.

**Task 4: For questions 16–25, listen to a conversation about global population trends and complete the summary. Write NO MORE THAN FOUR WORDS taken from the recording for each answer.**

Although population shifts are generally slow, they often get noticed when (16) \_\_\_\_\_ occurs. While fertility rates are falling, the world population is still (17) \_\_\_\_\_. A family example showed that even when individual family sizes shrink, population can grow through (18) \_\_\_\_\_. Many countries seeing fast growth are located (19) \_\_\_\_\_. Yet, even there, fertility is on a (20) \_\_\_\_\_ path. Projections indicate that by 2050, most nations will face a (21) \_\_\_\_\_. To maintain stability, each couple must have around (22) \_\_\_\_\_ children. But rising (23) \_\_\_\_\_ discourages many from having kids. For example, in the UK, raising a child costs about (24) \_\_\_\_\_ pounds. Financial insecurity, high housing and education costs, and delayed home ownership contribute to this trend, especially among (25) \_\_\_\_\_ in developed nations.

## **II. READING (8.0 points)**

### **II.1. LANGUAGE IN USE (3.0 points)**

**PART 1. For questions 26-35 read the text below and decide which answer (A, B, C, or D) best fits each space. Write the letter A, B, C or D in the numbered boxes provided.**

#### **Social Problems**

Ask most people for their list of Top ten fears, and you'll be sure to find (26) \_\_\_\_\_ burgled fairly high on the list. An informal survey I carried out among friends at a party last week revealed that eight of them had had their homes broken into more than twice, and two had been burgled five times. To put the record straight, (27) \_\_\_\_\_ of my friends owns valuable paintings or a sideboard full of family silverware. Three of them are students, in fact. The most typical (28) \_\_\_\_\_, it seems, involves the (29) \_\_\_\_\_ of easily transportable items – the television, the video, even food from the freezer. This may have something to do with the fact that the average burglar is in his (or her) late teens, and probably wouldn't know what to do with a Picasso, whereas selling a Walkman or a vacuum cleaner is a much easier (30) \_\_\_\_\_. They are perhaps not so (31) \_\_\_\_\_ professional criminals, as hard-up young people who need a few pounds and some excitement. Not that this makes having your house turned upside down and your favourite things stolen any easier to (32) \_\_\_\_\_. In most cases, the police have no luck (33) \_\_\_\_\_ any of the stolen goods. Unless there is any definite evidence, they are probably unable to do anything at all. And alarms or special locks don't seem to help either. The only advice my friends could (34) \_\_\_\_\_ was "Never live

on the ground floor” and “Keep two or three very fierce dogs”, which reminded me of a case I read about, where the burglars’ (35) \_\_\_\_\_ included the family’s pet poodle.

- |                     |                |                  |                |
|---------------------|----------------|------------------|----------------|
| 26. A. been         | B. having      | C. being         | D. out         |
| 27. A. none         | B. some        | C. all           | D. few         |
| 28. A. burglary     | B. item        | C. one           | D. invariably  |
| 29. A. carrying     | B. robbing     | C. example       | D. theft       |
| 30. A. matter       | B. price       | C. event         | D. one         |
| 31. A. many         | B. much        | C. that          | D. rarely      |
| 32. A. believe      | B. accept      | C. do            | D. attempt     |
| 33. A. taking       | B. about       | C. tracking      | D. recovering  |
| 34. A. come up with | B. get by with | C. bring up with | D. put in with |
| 35. A. takings      | B. profit      | C. loot          | D. receipts    |

**PART 2. For questions 36 – 40, read the passage, then fill in each of the numbered spaces with the correct form of the words from the list below. Write your answers in the numbered boxes provided.**

QUIET	STAND	APPREHEND	POWER	WIELD
LOGIC	NUMBER	AIR	EXPERT	MANAGE

More people fly today than ever before, yet many – experienced air travelers as well as novices – suffer anguish and (36) ..... at the mere thought of flying. As many as one out of seven people are thought to experience anxiety when flying, with women (37) ..... men two to one in these feelings of (38) .....

A certain amount of concern is understandable. The sheer size of modern jet aircraft, which appear awkward and (39) ..... on the ground, makes one wonder how they will manage to get into the air – and stay there. Most of these fears are illogical and are perhaps based on the knowledge that once in the aircraft, we, as, passengers, are powerless to control our fate, which depends solely on the (40) ..... of the crew. There is little comfort for us in the numerous statistical compilations which show that modern air transport is many times safer than transport by car or rail.

Most people’s fear remains on a manageable scale. For others, however, the anxiety can become an overwhelming fear, known as *aviophobia*. Symptoms include feelings of panic, sweating, palpitations, depression, sleeplessness.

**PART 3. The passage below contains FIVE mistakes. For questions 41 – 45, UNDERLINE the mistakes and WRITE THEIR CORRECT FORMS in the numbered boxes provided. (0) has been done as an example.**

Such far all attempts relating the bird’s navigational ability to electric forces and magnetic activity failed. Magnets, and minute radio transmitters, attaching to the bird’s body, do not interrupt or influence migration. Radar beams bombarding the bird visible have no known effect. Rotation of migrants in covered cages during transport by car or plane does not confuse them on release. One look on the celestial clues, their sky compass, and the really expert long-distance birds are away in the correct direction. Birds are not proved to carry a magnetic compass.

Example: 0. So

## II.2. READING COMPREHENSION (5.0 points)

**PART 1. For questions 46 – 55, read the following passage and fill in each of the numbered spaces with ONE suitable word. Write your answers in the numbered boxes provided.**

### DO YOU LIKE YOUR BOSS?

Gemma was delighted when she got her new job. Unfortunately, she soon discovered that her boss was a (46) \_\_\_\_\_ in sheep's clothing. While he appeared helpful and kind in public, he would 'forget' to give her key information for her job so that she made a lot of mistakes. If it (47) \_\_\_\_\_ not for him, the job would have been perfect. It was no (48) \_\_\_\_\_ just watching him. She had to do something about the situation, (49) \_\_\_\_\_ she would be forced to leave the company. However, that would only be as a (50) \_\_\_\_\_ resort because she really liked her work! So, one evening, she hid a camera in a cupboard. The next day she got into work early to check the recording. (51) \_\_\_\_\_ astounded was she at what she saw that she froze, before the anger started. She saw her boss creep into the room and look about in (52) \_\_\_\_\_ anyone was watching; to her horror, he logged onto her computer with her personal password. She watched as he deleted files or changed information in the remaining files.

No (53) \_\_\_\_\_ had she seen the video clip, than she copied it onto a memory stick. (54) \_\_\_\_\_ was no doubt he was behaving unethically, but what should she do? Finally, she decided to approach him directly and present him with the evidence. She promised that she wouldn't show it to his boss, on (55) \_\_\_\_\_ that he resigned immediately. She stood over him while he wrote the email, with a copy to her.

It had done her the world of good to finally turn the tables on the man who had made her working life a misery.

**Part 2: For questions 56-68, read the following passage and do the tasks that follow.**

**Does water have memory?**

The practice of homeopathy was first developed by the German physician Samuel Hahnemann. During research in the 1790s, Hahnemann began experimenting with quinine, an alkaloid derived from cinchona bark that was well known at the time to have a positive effect on fever. Hahnemann started dosing himself with quinine while in a state of good health, and reported in his journals that his extremities went cold, he experienced palpitations, an "infinite anxiety", a trembling and weakening of the limbs, reddening cheeks and thirst – "in short", he concluded, "all the symptoms of relapsing fever presented themselves successively..." Hahnemann's main observation was that things which create problems for healthy people cure those problems in sick people, and this became his first principle of homeopathy: *similia similibus* (with help from the same). While diverging from the principle of apothecary practice at the time – which was *contraria contrariis* (with help from the opposite) – the efficacy of *similia similibus* was reaffirmed by subsequent developments in the field of vaccinations.

Hahnemann's second principle was minimal dosing – treatments should be taken in the most diluted form at which they remain effective. This negated any possible toxic effects of *similia similibus*.

In 1988 the French immunologist Jacques Benveniste took minimal dosing to new extremes when he published a paper in the prestigious scientific journal *Nature* in which he suggested that very high dilutions of the anti-IgE antibody could affect human basophil granulocytes, the least common of the granulocytes that make up about 0.01% to 0.3% of white blood cells. The point of controversy, however, was that the water in Benveniste's test had been so diluted that any molecular evidence of the antibodies no longer existed. Water molecules, the researcher concluded, had a biologically active component that a journalist later termed "water memory". A number of efforts from scientists in Britain, France and the Netherlands to duplicate Benveniste's research were unsuccessful, however, and to this day no peer-reviewed study under broadly accepted conditions has been able to confirm the validity of "water memory".

The third principle of homeopathy is "the single remedy." Exponents of this principle believe that it would be too difficult, if not impossible, to ascertain the potential effects of multiple homeopathic remedies delivered simultaneously. If it did work, they suggest, one could not know quite why it worked, turning homeopathy into an ambiguous guessing game. If it did not work, neither patient nor practitioner would know whether the ingredients were all ineffective, or whether they were only ineffective in combination with one another. Combination remedies are gaining in popularity, but classical homeopaths who rely on the single remedy approach warn these are not more potent, nor do they provide more treatment options. The availability of combination remedies, these homeopaths suggest, has been led by consumers wanting more options, not from homeopathic research indicating their efficacy.

Homeopathy is an extremely contentious form of medicine, with strong assertions coming from both critics and supporters of the practice. "Homeopathy: There's nothing in it" announces the tagline to 10:23, a major British anti-homeopathy campaign. At 10.23 a.m. on 30 January 2010, over 400 supporters of the 10:23 stood outside Boots pharmacies and swallowed an entire bottle each of homeopathic pills in an attempt to raise awareness about the fact that these remedies are made of sugar and water, with no active components. This, defenders of homeopathy say, is entirely the point. Homeopathic products do not rely on ingredients that become toxic at high doses, because the water retains the "memory" that allows the original treatment to function.

Critics also point out the fact that homeopathic preparations have no systematic design to them, making it hard to monitor whether or not a particular treatment has been efficacious. Homeopaths embrace this. While results may be less certain, they argue, the non-toxic nature of homeopathy means that practitioners and patients can experiment until they find something that works without concern for side effects. Traditional medicine, they argue, assaults the body with a cocktail of drugs that only tackles the symptoms of disease, while homeopathy has its sights aimed on the causes. Homeopaths suggest this approach leads to kinder, gentler, more effective treatment.

Finally, critics allege that when homeopathy has produced good results, these are exceedingly dependent on the placebo effect, and cannot justify the resources, time and expense that the homeopathic tradition absorbs. The placebo effect is a term that describes beneficial outcomes from a treatment that can be attributed to the patient's expectations concerning the treatment rather than from the treatment itself. Basically, the patient "thinks" himself into feeling better. Defenders suggest that homeopathy can go beyond this psychological level. They point to the successful results of homeopathy on patients who are unconscious at the time of treatment, as well as on animals.

**For questions 56-62, decide whether the following statements are True (T), False (F) or Not Given (NG).**

56. Samuel Hahnemann developed his principles based on an existent set of rules at his time.
57. The existence of a biologically active part in water has yet to be conclusively proven.
58. The single remedy serves to preclude the unforeseeable outcomes of remedial combinations.
59. It has been suggested that the practice of applying several treatments at the same time becomes more common due to endorsements by scientists.
60. The uncertainty of preparations for homeopathy is perceived by both supporters and opponents of it.
61. Patients' feelings are affected by the outcomes of the treatments they receive.
62. Abortive attempts of homeopathic treatment are used to corroborate its opponents' arguments.

**For questions 63-68, complete the following paragraph with words taken from the passage (NO MORE THAN THREE WORDS for each blank).**

There are three principles behind the practice of homeopathy. The first one, *similia similibus*, was developed by Samuel Hahnemann after experimentation in which he observed that problem-inducing factors could become treatments for suffering people. While marking a departure from that of (63) \_\_\_\_\_, this principle of homeopathy was substantiated by further advancements. The second principle, minimal dosing, serves to avert (64) \_\_\_\_\_ that can be caused by *similia similibus*. The attempt for its furtherance was made by Jacques Benveniste, but controversy was sparked as there was a lack of (65) \_\_\_\_\_ in the used water. Moreover, a result from his experiment termed "water memory" had received (66) \_\_\_\_\_ to the moment of writing. The third principle named "the single remedy" works on the ground that application of multiple treatments at the same time can make homeopathy become a(n) (67) \_\_\_\_\_ even when the results are desirable.

Homeopathy is a controversial remedy. While there are arguments in favour of it, critics have suggested weaknesses in the treatment including its components, lack of systemic design and the reliance on (68) \_\_\_\_\_ of its feasible positive effects.

**Part 3. You are going to read an extract from an article about a famous historical figure. Seven paragraphs have been removed from the extract. Choose from the paragraphs A-H the one which fits each gap (69-75). There is one extra paragraph which you do not need to use.**

Divers in America have found the wreck of the Queen Anne's Revenge, the flagship of the infamous pirate, Captain Blackbeard. It lies on the sea bed, in just six metres of water, a mere one hundred and eighty metres offshore in Beaufort Inlet, North Carolina. Around it, half-buried in the yellow sand, lie cannon, a blunderbuss and cannonball have been brought to the surface. So has the ship's beil. It is marked: 1709.

69.	
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Blackbeard, or Captain Edward Teach, valued his fearsome reputation and enhanced it. He had a powerful physique and would plait his beard into pigtails, tie them with coloured ribbon and twist some braids behind his ears. Before battle he would light several slow-burning matches and tuck them in his hat, so wisps of smoke curled around his scarred face. He wore pistols, daggers and a cutlass in a belt and across his chest he wore a sling that held three more pairs of pistols, all primed, cocked and ready to fire.

70.	
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They spent much of their time drunk, and tortured and murdered anyone who resisted. Forget swashbuckling. Here was a man who knew the value of unmitigated terror. If Blackbeard could cow an enemy into surrender, he would have an undamaged ship to plunder, with undamaged booty. But captains who put up heroic resistance were not appreciated by Blackbeard.

71.	
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He set to sea in a skop, and soon had a fotilla of four vessels. He intercepted the large French ship Concorde sailing towards Martinique. He found her well provisioned-food, water and sailing gear were the biggest needs that pirates faced, other ships and navies were trifles to be sacrificed compared to supplying a ship when all ports were barred to you.

72.	
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In the infamous trade where the slaves were picked up off Senega, speed was the most important requirement before the valuable 'cargo chained below decks all died, and she underwent rigging refinements to speed her. When Blackbeard captured her she had twenty cannon. He almost doubled the number and then added more guns on the rails and fixed brass blunderbusses. He then increased his pirate crew to around three hundred.

73.	
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But with Blackbeard, nothing was exaggerated. He marooned men for real. After one infamous raid, he had a large fleet, much booty - but too many men, all wanting a share of it. His solution was simple, and brutal.

74.	
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The Queen Anne's Revenge sank in the summer of 1718. She may have foundered on a sandbank in one of the hurricanes of that year. Blackbeard transferred to the Adventure, a sloop of ten guns, and it was on the Adventure that he fought his last battle. Blackbeard's final stand is recorded in the logbooks of the Royal Navy and the Battle of Ocracoke Creek. Extraordinarily, the Navy had to hire the ships to fight it-their own were too deep to enter the sandy shallows where Blackbeard was hiding.

75.	
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Blackbeard was beheaded and his head was stuck on the bowsprit of the Adventure and sailed back to Virginia. So Blackbeard passed his last voyage, the dead, staring eyes gazing at the sea. But the Queen Anne's Revenge still lay where she had foundered three months before. And there she has lain, a playground for the fishes, undisturbed, her grim secrets safe. Until now....

## PARAGRAPHS

- A. He ran two of his ships aground off the coast of Carolina with their crew, to be rid of them, then forced seventeen men A from the Queen Anna's Revenge to disembark upon a small sandy island offshore. "It was several miles from the main, where there was neither bird, beast nor herb for their

subsistence,” reported the General History of the Pirates, published in 1724. They must have died in extreme agony of thirst and exposure, some days later.

- B. The ship they hired had no cannon so they had to come alongside, board the pirate ship and light hand-to-hand with pistols and swords. By the end of the battle, twenty bodies, naval and pirate, lay in blood on the decks or rotting among the shallows and sandbanks.
- C. He fought on as other bullets hit him from all around, cursing furiously, seemingly unstoppable. His hand was cocking the pistol even as he fell dead. Five bullets and twenty sword-cuts were found in Blackbeard’s corpse.
- D. Her size made her ideal as his flagship. He took her over and gave her the new name, the Queen Anne’s Revenge. She was British, built of best white oak in 1710. She had been acquired by a Frenchman and modified to a two hundred tonner operating as a slave ship out of Nantes, France.
- E. They would be brutally tortured, as a deterrent to others. Teach was born Edward Drummond in Bristol in 1680. He left a wife and children behind in London when he departed for his career on the high seas. The first we hear of him is as a privateer - an officially sanctioned pirate, attacking enemy ships for the British during the War of the Spanish Succession. In 1713, peace was declared but Teach saw no reason to stop taking ships - any ships.
- F. Pirates today are for children’s tales. But Blackbeard was no fairy tale. He was the most notorious pirate of all, and the most terrifying. In his time, he held a whole British colony to ransom. He outfought a Royal Navy ship and sent it running to harbour and safety. And his death, when it happened, was as grisly as they come. Keep in mind then, that this is not legend, but blood-soaked history.
- G. Contemporary accounts said of Blackbeard that he was a “frightful meteor who frightens America more than any comet which has appeared there”. The appearance of his pirates was almost as fierce. Their language was coarse, their manners barbaric. Their faces and arms were burned by the sun and sea. Many had scars and missing limbs due to battles at sea.
- H. They were a tough, brutal mixture of seasoned seamen from ports around the world. They slept in hammocks in shifts to maintain constant watch on deck for merchantmen laden with riches heading for ports in Europe and the Americas. Of course it is part of the pirate legend that they marooned their enemies on desert islands.

**Part 4: For questions 76-85, read a passage on the human immune system and choose the answer (A, B, C or D) which fits best according to the passage.**

**The secrets of how sharks survived so many of Earth’s mass extinctions**

*Vegetarianism and underwater volcanoes have helped sharks survive for half a billion years. But can they use their skills to cope with climate change?*

The beach at Muizenberg outside Cape Town is a Mecca for wannabe surf bums. But when the beach siren sounds, surfers and swimmers alike tend to lose their cool. That distinctive rolling wail is a warning that sharks may be nearby. Everyone knows the drill – get out of the water as quickly as you can.

[A] The mere suggestion of a shark is enough to conjure fear in many of us. [B] But sharks also inspire awe. It isn’t just their elegance or physicality; equally impressive is their tenacity. [C] That makes them older than humanity, older than Mount Everest, older than dinosaurs, older even than trees. [D] It is possible that sharks just got lucky in the lottery of life. But over the past few years, scientists have discovered that the fish possess some unusual qualities that allow them to be super-adaptable in the face of change, including a fondness for hanging out around underwater volcanoes. The big question now is whether these qualities will help sharks survive the current sixth mass extinction, **triggered** by human activities. Today, sharks face a new challenge, far deadlier than any they have ever encountered.

Sharks, along with rays, skates and chimaeras, make up a group of fish known as chondrichthyes, characterised by a cartilaginous skeleton. Fossil scales found in Siberia indicate that sharks originated in the Silurian period, which began about 440 million years ago. It was a time when the world was warm, sea levels were high and corals reefs were starting to appear. Since then, thousands of shark species have existed, culminating in a golden age about 360 million years ago, when they dominated the oceans, taking many weird and wonderful forms. Today, there are more than 450 shark species, ranging from well-known ones such as great whites and hammerheads to the exotic and bizarre, including goblin

sharks, cookiecutter sharks and Japanese wobbegong.

Of course, many shark species are now extinct, but that is to be expected. It is estimated that extinction has been the fate of more than 99 per cent of all plants and animals that have ever lived. The puzzle instead is how sharks as a group have survived for so long. Palaeoecologist Sora Kim at the University of California, Merced, who studies ancient and modern sharks, sees one clue in their faeces. “When a shark poops, there’s hardly any solids,” she says. “It’s more of a clearish goo.” This indicates that they possess a highly efficient digestive system able to process almost all of what they eat. That can be helpful if food gets scarce, says Kim, which is likely to happen during a mass extinction event. Earth’s third and biggest mass extinction, for example, which happened about 252 million years ago, saw upwards of 96 per cent of all marine life disappear.

As well as letting very few nutrients go to waste, sharks are also surprisingly unfussy eaters. A few years ago, Kim and her colleagues studied the diet of great white sharks by analysing chemical signatures in their backbones. “When I started the project, I thought, well, white sharks **devour** seals and sea lions,” she says. That was the received wisdom. “I was really surprised that that’s not what I saw.” They don’t turn their nose up at these animals, but they seem just as happy consuming other prey such as squid. “Even though we think of them as being apex predators at the top of the food chain, they definitely aren’t that all of the time,” says Kim. In fact, research published last year reveals one shark species, the bonnethead, is omnivorous, consuming copious amounts of seagrass along with shellfish. Such dietary flexibility would have worked in sharks’ favour when the going got tough.

More evidence of shark adaptability comes from their teeth. Unlike their cartilaginous skeleton, the teeth are extremely hard, which gives them a good chance of being preserved in the fossil record. In Canada’s Northwest Territories, teeth belonging to sand tiger sharks litter ancient sediments near the Muskox and Eames rivers. They are between 53 and 38 million years old, dating from the Eocene, an epoch when Earth was about 9°C to 14°C warmer than it is today. Ice caps melt in warmer worlds, and their freshwater drains into the oceans. This makes ocean water less salty, which can be a problem for fish species that require specific salt levels to survive. But it doesn’t seem to have bothered the Eocene sand tiger shark: the chemistry of its teeth suggests that it was living in far less salty waters than its counterparts inhabit today.

76. According to the passage, why does the writer say swimmers “lose their cool”?

- A. They feel scared due to the temporary siren sounds.
- B. They are suddenly conscious of the threat in the area.
- C. They become exhausted after hearing the warning sounds.
- D. They are concerned about potential surfers frequenting the shore.

77. Which of the following square brackets [A], [B], [C], or [D] best indicates where in the paragraph the sentence “**As a group, sharks have been around for at least 420 million years, meaning they have survived four of the “big five” mass extinctions.**” can be inserted?

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

78. According to paragraph 3, sharks \_\_\_\_\_.

- A. have been very fortunate in their annual reproduction
- B. have had certain peculiar characteristics
- C. have attributes enabling them to ensure its stability
- D. want to reside close to underwater volcanoes

79. The word **triggered** in paragraph 3 is CLOSEST in meaning to \_\_\_\_\_.

- A. stimulated                      B. possessed                      C. eliminated                      D. impressed

80. According to paragraph 4, what can be inferred about sharks?

- A. They could have evolved during another epoch apart from the Silurian period.
- B. They would probably adapt themselves to cold climates and low-level water.
- C. There would probably be other types of sharks that have not been identified.
- D. There might be some sharks that contribute to the disappearance of coral reefs.

81. According to paragraph 5, what is true about sharks?

- A. It is a possibility that many of their species could suffer a threat of extinction.
- B. More than 99 per cent of those that have ever lived are thought to have died out.



- C. A palaeoecologist disagrees that scarcely any solids are present in a shark's excrement.  
 D. They have a very effective digestive system that can break down practically all of their food.
82. The word **devour** in paragraph 6 is CLOSEST in meaning to \_\_\_\_\_.  
 A. mistake                      B. hunt                      C. raise                      D. eat
83. According to paragraph 6, Kim asserts that \_\_\_\_\_.  
 A. the received wisdom is surprising to her and her colleagues  
 B. sharks are equally content to eat other types of animals  
 C. sometimes sharks are hunted by other animals at the top of the food chain  
 D. sharks used to be omnivorous due to their nutritional adaptability
84. According to the passage, what characteristics do sharks' teeth have?  
 A. ability to defossilise      B. durability      C. flexibility                      D. reusability
85. According to the passage, the Muskox and Eames rivers are where \_\_\_\_\_.  
 A. sharks survived fossilisation and preserved their teeth  
 B. sand tiger shark teeth are scattered throughout the old sediments  
 C. salt content of ocean water can be problematic for shark species  
 D. freshwater drains into the oceans, leading to much less salinity

**PART 5. You are going to read an article about innovation. For questions 86-95, choose from the sections (A-F). The sections may be chosen more than once.**

#### **ARE WE REACHING THE LIMITS OF INNOVATION?**

- A. Were there far fewer undiscovered ideas out there than in our more primitive past, how would people know? This is not an idle question; decoding the mysteries of nature, from atmospheric pressure to electricity to DNA, allowed people to bend the natural world to their will, and to grow richer in the process. A dwindling stock of discoverable insights in the pipeline would mean correspondingly less scope for progress in the future - a dismal prospect. And some signs suggest that the well of our imagination is about to run dry. Though ever more researchers are digging for insights, according to new research, the flow of new ideas is flagging.
- B. But is it? A recent paper by Nicholas Bloom, Charles Jones and Michael Webb of Stanford University, and John Van Reenen of the Massachusetts Institute of Technology provides relevant evidence. Though striking an agnostic position as to whether humanity has used up all its eureka moments, they nonetheless conclude that new ideas are getting more expensive to find. The authors consider four different case studies, within which they compare research 'inputs' (such as the money spent on researchers and lab equipment) and outputs. For instance, the number of transistors that can be squeezed onto a microchip has doubled with reassuring regularity for half a century, every two years or so - a phenomenon known as Moore's Law (after Gordon Moore, a founder of Intel). But companies have run up against a vexing problem: to continue achieving this success, they have to pour more and more resources into the effort over time. The research productivity of each scientist participating in the battle to cram in transistors has correspondingly tumbled.
- C. Analysing the supply side of the innovation equation in isolation can also be misleading. The demand for new ideas, and, correspondingly, the incentive to tackle difficult questions, also matters. In his analysis of the Industrial Revolution, Robert Allen, then an economic historian at Oxford, sought to explain why it started in Britain rather than anywhere else. Supply-side factors, such as improved literacy and stronger property rights, certainly played a part. But it was the demand for labour-saving innovation, prompted by Britain's relatively high wages at the time, which gave tinkerers a strong incentive to develop and hone the steam engine and its applications.
- D. Researchers are often like the man searching for his keys under the streetlight, because that is where the light is. Until some pressure is applied to encourage him to look elsewhere, the search will often prove fruitless. It is easy to see why firms might take a lackadaisical approach to some research questions. Disappointing wage growth across advanced economies is a deterrent to the invention and use of labour-saving innovations. Persistently high rates of profit give big firms plenty of money to plough into fancy research labs, but also suggest that the competitive pressures which might prompt them to exploit the resulting discoveries are weak.

E. Despair is premature, however. The effort to find new, growth-boosting ideas is not necessarily hopeless, just complicated. Whether herding more researchers into the laboratory raises growth might depend on how intensively the resulting brainstorming is used. Across the global economy, many countries have yet fully to exploit ideas already in use by firms at the cutting edge of scientific knowledge. The problem, in other words, is not that oranges are in short supply or are already squeezed dry, but rather that of the ten workers at the juice bar, only one has learned to do the squeezing. Investments in education and training, to expand the share of workers that can use new ideas, or in the quality of management, to improve how effectively ideas are applied within firms, would do wonders for growth, even if the world's scientists are idly scratching their heads.

F. In some ways, the accumulation of knowledge can hold back progress. 'The more that is known, the more researchers must absorb before they can add to the stock of human knowledge - or the more they must collaborate with other researchers to combine their areas of expertise. But the incomplete exploitation of currently available knowledge is in some way reassuring. It suggests that people are underperforming relative to their potential: both in how they use available ideas and in how they uncover new ones.

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### In which section are the following mentioned?

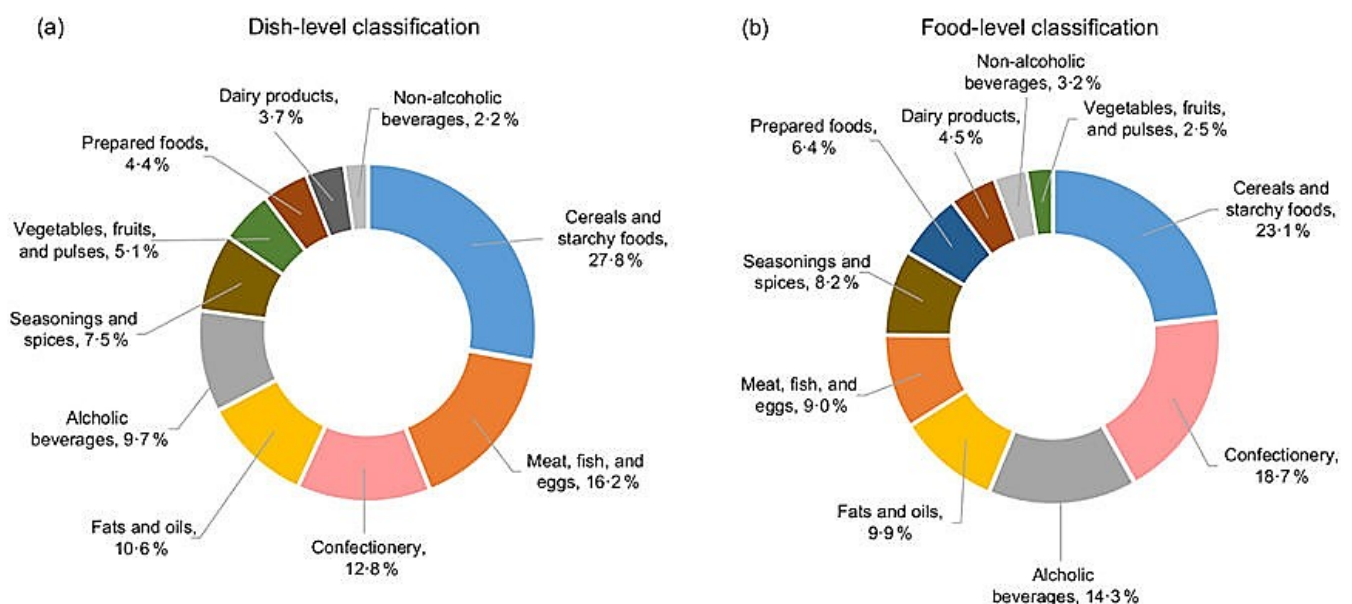
86. an unwillingness on the part of certain researchers to commit to an opinion
87. the beneficial effects of improved administration at companies
88. the desire to reduce the number of workers needed to do certain jobs
89. a falling benefit-cost ratio
90. the growing need for experts to work together
91. a narrow perspective leading to an incorrect assumption
92. the potential downsides of strong economic performance
93. economic gains resulting from humans altering their environment
94. the failure to take full advantage of innovations that already exist
95. a lack of enthusiasm for innovation at some companies

### III. WRITING (5.0 points)

**PART 1: The charts below show the relative contribution of each food group to the total energy intake from highly processed foods among a population of 388 people in Japan. The data is categorized by dish-level and food-level classification.**

Summarize the information by selecting and reporting the main features, and make comparisons where relevant.

Write at least 150 words.



**Source:** Shinozaki, N., Murakami, K., Asakura, K., Masayasu, S., & Sasaki, S. (2023). *Consumption of highly processed foods in relation to overall diet quality among Japanese adults: A nationwide study*. Public Health Nutrition. doi:10.1017/S1368980023000721.

**PART 2. Write an essay of at least 300 words on the following topic:**

Some people believe that achieving peace of mind is more important than material success in today's fast-paced world.

Others argue that financial stability and career progress are essential for a peaceful life.

Discuss both these views and give your own opinion.