

## **Reading Comprehension**

"The water was as clear as glass till 20 years ago, when the drains were cleaner. We could see coins at the bottom of the river. We could drink directly from the Yamuna," says fisherman Raman Haldar, scooping a cupped palm into the muddy waters, bringing it near his mouth to emphasize the point. Seeing our mortified look, he lets it run down his fingers with a wistful laugh. In today's Yamuna, plastics, foil wrappers, muck, newspapers, concrete debris, cloth scraps, slush, rotting food and dead flowers from puja offerings, wandering coconuts, chemical foam and water hyacinth offer up a dark reflection of the capital city's consumption. (Para 1)

The Yamuna flows through the National Capital Territory for 22 kilometres, 1.6% of the river's length. But the wastes and poisons emptied into that little stretch account for close to 80% of all pollution in the 1,376-kilometre river. Acknowledging this, the monitoring committee report of the National Green Tribunal (NGT) in 2018 pronounced the river in Delhi a 'sewer line'. (Para 2)

The resulting severe depletion of oxygen levels in the water causes large-scale deaths of fish. Last year, thousands of fish were found dead at the Kalindi Kunj Ghat on the southern stretch of the river in Delhi. For a river ecosystem to survive, it needs a Dissolved Oxygen (DO) level of 6 and above. Fish require a DO level of at least 4-5. In the Delhi part of Yamuna, the DO is between 0 to 0.4," says Priyank Hirani, director of the Water-to Cloud project of the Tata Centre for Development at the University of Chicago. The project maps real-time pollution in rivers. (Para 3)

At the Ram Ghat bank, 52-year-old Haldar says, "I moved here from Kalindi Kunj Ghat three years ago. There's no fish there, earlier there was plenty. Only some catfish remain now. Quite a few of these are dirty and cause allergy, rash, fever and diarrhoea," he says, untangling a puffy handmade net. Unlike other species that live deeper in the water, the catfish is able to float to the surface and breathe, and so survives better than the others. Predators in this ecosystem, explains Delhi-based marine conservationist Divya Karnad, concentrate toxins in their body because of eating fish lower down in the food chain exposed to those poisons. "So, people eating the scavenger-carnivore catfish suffer reactions." Haldar's sons, unable to take up his occupation, sell mobile phone accessories and momos for a living. Nearby, 35-year-old Sunita Devi says her fisherman husband Naresh Sahni is away, seeking work as a daily labourer. (Para 4)

Nearly 87 per cent of India's fish catch potential is available within waters of a 100-metre depth. Most of that is within reach of the country's fishing communities. It fosters not just food, but also daily lives and cultures. "Now you're breaking the small-scale economy of the fishers," points out Pradip Chatterjee, head of the National Platform for Small Scale Fish Workers. "They supply local fish to local markets. If they don't find fish, they will bring it from faraway places, using transport which aggravates the crisis." Increased use of groundwater too requires more energy and interferes with the water cycle. "Water bodies will get affected, and rivers won't get recharged. Still more energy, from conventional sources, will be needed to fix this and get clean, potable water from the river. We are breaking nature-based economies forcibly, and putting labour, food and production into a corporate cycle that is energy and capital intensive." A climate crisis, with its fluctuations in rainfall and temperatures, adds layers to the Yamuna problem, says senior environmental consultant Dr. Radha Gopalan, since the quantity and quality of the water is compromised. (Para 5)

1) According to the information in the passage, which of the following is true:

- A) The waste in the Jamuna accounts for close to 80% of the total pollutants in the National Capital Region.
- B) Nearly 40% of the waste in the Yamuna is emptied into it during its flow through the National Capital Region.
- C) The National Capital Region accounts for most of the waste in the Yamuna.
- D) The Yamuna runs through the National Capital Region for 1376 kilometres.

2) According to the passage:

- A) The Dissolved Oxygen Level of the Yamuna is above 6.
- B) The Yamuna waters dissolve oxygen at the rate of 4 or 5.
- C) The Dissolved Oxygen Level is one of the ways in which scientists check for whether water can sustain fish.
- D) Fish do not survive in water with a DO level of 6 and above.

3) According to the passage, which of the following is a likely chain reaction?

- A) Catfish eat other carnivores → humans eat the same carnivores → humans fall sick
- B) Humans eat small fish → humans fall sick
- C) Catfish eat small fish → humans eat catfish → humans fall sick
- D) Small fish eat catfish → humans eat catfish → humans fall sick

4) What is the main idea of the passage?

- A) The Yamuna is polluted and therefore the fish in it die.
- B) The pollution in the Yamuna causes the death of fish, a shortage of edible fish and loss of livelihoods.
- C) Global warming acts on the Yamuna waters to cause the loss of livelihoods.
- D) The pollution in the Yamuna is caused by a shortage of rainwater.

5) The author of this passage is likely to support:

- A) Policies that encourage the transportation of fish from seaports to the National Capital Region
- B) Policies that encourage consumption of local food produce
- C) Policies that encourage the use of the Yamuna banks for religious purposes
- D) Policies that limit employment potential for those who previously used to be fishermen

6) Which of the following words is closest in meaning to the word “depletion” as used in the sentence “The resulting severe depletion of oxygen levels in the water causes large-scale deaths of fish.”(Para 3)

- A) increase
- B) maintenance
- C) theft
- D) reduction

7) “If they don't find fish, they will bring it from faraway places, using transport which aggravates the crisis”. If action in this sentence happened in the past, which of the following would be the most correct way to rewrite the sentence?

- A) If they will not find fish, they will be bringing it from faraway places, using transport which aggravates the crisis.
- B) If they didn't find fish, they would be bringing it from faraway places, using transport which aggravated the crisis.
- C) If they did not find fish, they would bring it from faraway places, using transport which aggravated the crisis.

D) If they don't find fish, they are bringing it from faraway places, using transport which aggravates the crisis.

8) Which of the following words is the closest in meaning to the word “aggravates” as used in the sentence “If they don't find fish, they will bring it from faraway places, using transport which aggravates the crisis ...” (Para 5)

- A) Worsens
- B) Improves
- C) Reduces
- D) Benefits

9) Which of the following phrases is the closest antonym (opposite) of the word “fluctuation” as used in the sentence beginning: “A climate crisis, with its fluctuations in rainfall and temperatures...”? (Para 5)

- A) Changing levels
  - B) Repetitive actions
  - C) Maintaining a steady level
  - D) Causing a continuous reduction
- 

The most fascinating journeys are those that lead us backwards in time. Throw in some boulders and slippery rocks and you are in Hampi, Karnataka's spectacular World Heritage Site. Navigating Hampi's ancient ruins on the rocky banks of the Tungabhadra calls for some nimbleness. Spread over 30 acres, Hampi is often associated with the resplendent 14<sup>th</sup> to 17<sup>th</sup> century Vijaynagara empire. But the complex dates back to a much earlier past. (Para 1)

The sprawling ruins tantalize your imagination, nudging you to reconstruct that remote past. There are relatively recent temples decorated with delicate etchings, prehistoric pottery fragments, Mauryan cave engravings and edicts, all kinds of scarred sculpture and shattered structures, spanning centuries and defying easy categorization. (Para 2)

Hampi is an open-air museum, a puzzle to the historians and archaeologists who throng here. But it also offers something for everyone. For young motor-bikers and Youtubers, stunning locations and lookout points yield selfies against a blue sky. Fancy eateries cook up many cuisines to an international clientele. Adventure-seekers trek up the jutting rocks, cyclists speed through picturesque streets, the pious offer prayers. I am none of these; I am here to drink deep of antiquity, to retrace the steps of traders through the grand marketplace, to skip lightly down the stone stairs where bejewelled feet once walked, to capture on camera the curvaceous maidens populating the *mandapa* pillars, and to imbibe the ambience of the tranquil village palms and paddy fields. (Para 3)

The gopuram of the Virupaksha temple, garishly whitewashed, cranes over everything. Dedicated to Shiva, the temple is said to have been built by Lakkan Dandesha, a chieftain under Deva Raya II. However, it has probably existed in some basic form from the seventh century, when it used to be dedicated to Pampadevi, goddess of the Tungabhadra. Legend even links Hampi to the ancient Kishkinda kingdom of the Ramayana. Over the centuries, the temple expanded; major and minor shrines were installed near the main shrine during the Chalukya and Hoysala periods, culminating in the majesty of the Vijayanagara era. Subsequent additions were the Queen's Bath and the Elephant Stables, which blend the best of Islamic and Hindu architecture. (Para 4)

What sets Hampi apart is that despite having been built over many centuries and being ruled by many dynasties, including Muslim ones, the architecture is distinctly Dravidian, and all the structures are constructed of local stone. The Ashokan rock edicts of 269-232 BCE in nearby Nittur and Udegolan suggest that this region was then part of the Mauryan Empire. Sixth century Chalukyan inscriptions in

Badami also refer to Pampapura. By the 10th century, under the Kalyana Chalukyas, Hampi was a religious and educational centre; later inscriptions mention royal gifts to Hampadevi. The Hoysalas built temples to Durga, Hampadevi and Siva, according to an inscription dated 1199 C.E. Hampi became the second royal residence; Hoysala kings were known as HampeyaOdeya, "Lord of Hampi". (Para 5)

According to popular legend, Harihara and Bukka founded the Sangama dynasty in 1323, renaming Hampi Vijayanagara, City of Victory. From 1323 to 1565, under four successive dynasties, Vijayanagara became one of the richest and most famous empires. Peace and prosperity under enlightened rulers who encouraged the arts, learning and architecture made Vijayanagara a splendid city, rivalled only by Peking, and reaching its zenith under Krishna Deva Raya in the sixteenth century. (Para 6)

This flourishing empire attracted thinkers, philosophers, and artists, but also merchants bearing precious metals, bales of silk, skilled woodcraft and bushels of grain. In the sprawling market square ringed by impressive columns, I close my eyes and imagine the haggling voices, the bustle of commerce, the clattering chariots, the songs of minstrels, a city alive and throbbing. (Para 7)

1) According to the information provided in this passage, which of these is true?

- A) The earliest we can know for sure that Hampi existed was in the 14<sup>th</sup> century.
- B) Hampi has existed from time immemorial.
- C) Hampi, though referred to by other names, has existed at least from the 3<sup>rd</sup> century BCE.
- D) Hampi was built in the 3<sup>rd</sup> century BCE.

2) What do you think is the main point of Paragraph 2?

- A) There are many kinds of monuments and fragments in the Hampi complex.
- B) The remnants of old Hampi are truly picturesque
- C) The entire Hampi complex was very likely built by the Mauryan kings.
- D) Reconstructing the history of the city from what remains of it today has been a challenging but fascinating task.

3) Which of the following ideas does Paragraph 3 emphasize?

- A) Foreign tourists are attracted by Hampi's many famous restaurants.
- B) Hampi has sights and experiences that interest many different kinds of people.
- C) The pillars in Hampi often feature bejewelled dancing women.
- D) The villages around Hampi have green paddy field and palm trees.

4) What is the author mainly trying to do in Paragraph 5?

- A) Give us information about Hampi so that we know why tourists go there today.
- B) Give us information about Hampi so that we get a sense of how old it is and how it has developed over time.
- C) Give us information about Hampi so that we get a sense of how prosperous it was.
- D) Give us information about Hampi so that we can see how it was a centre for trade.

5) Which of the following phrases best describes the mood of Paragraph 7?

- A) Scholarly and analytical
- B) Light and humorous

- C) Dreamy and nostalgic
- D) Angry and resentful

6) Which of the following words is the closest in meaning to the word “sprawling” as used in the sentence that begins “The sprawling ruins tantalize your imagination...”? (Para 2)

- A) spread out in an irregular way over a large area
- B) built a long time back
- C) giving evidence of modern engineering techniques
- D) carefully planned constructions

7) Which of the following is closest in meaning to the word “distinctly” as used in the sentence ending “the architecture is distinctly Dravidian, and all the structures are constructed of local stone ...”? (Para 5)

- A) A noun that describes the architecture of the Chalukya ruler
- B) A pronoun that indicates who built the later Hampi structures
- C) An adverb that means ‘clearly’ or ‘easily evident’
- D) A verb that shows how early Muslims in India also worshipped in some of the Hindu temples in Hampi.

8) “Peace and prosperity under enlightened rulers who encouraged the arts, learning and architecture made Vijayanagara a splendid city, rivalled only by Peking, and reaching its zenith under Krishna Deva Raya in the sixteenth century.” (Para 6). If this sentence was to be written in the future tense, which of the following would be a correct version?

- A) Peace and prosperity under enlightened rulers who encourage the arts, learning and architecture will make Vijayanagara a splendid city, rivalled only by Peking, and reaching its zenith under Krishna Deva Raya in the sixteenth century. (Para 6)
- B) Peace and prosperity under enlightened rulers who had encouraged the arts, learning and architecture made Vijayanagara a splendid city, rivalled only Peking, and will reach its zenith under Krishna Deva Raya in the sixteenth century. (Para 6)
- C) Peace and prosperity under enlightening rulers who will be encouraging the arts, learning and architecture will be making Vijayanagara a splendid city, rivalled only by Peking, and it will be reaching its zenith under Krishna Deva Raya in the sixteenth century. (Para 6)
- D) Peace and prosperity under enlightened rulers who are encouraging the arts, learning and architecture have made Vijayanagara a splendid city, rivalled only by Peking, and reaching its zenith under Krishna Deva Raya in the sixteenth century. (Para 6)

9) Which of the following phrases is the closest antonym (opposite) of the word “zenith” as used in the sentence ending “reaching its zenith under Krishna Deva Raya in the sixteenth century”? (Para 6)

- A) middle level
  - B) lowest point
  - C) highest point
  - D) approaching the end
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Why is it that humans always seem to get separated out from other animal species? Humans are the only ones who will read these sentences. We're also the only ones who wear hats. But the list of attributes once thought to be unique to our species—from using tools to waging war—is not only rapidly shrinking, but starting to sound less and less impressive when we compare them with other animals' powers. Spiders grow new limbs. Octopuses change colour and shape. Insects and amphibians metamorphose from one distinct form to another. Human accomplishments pale! It is surely time to put humans back into the animal world and bring animals into the human world—where we all belong. (Para 1)

Think of it: For all but the last few moments of our existence as a species, from an evolutionary perspective, humans have been hunter-gatherers. We depended directly on our observations of the natural world—the real world—for everything: food, shelter, clothing, medicine, even art, worship, and inspiration. The natural world is where our kind perfected “the wholeness of all we think of as culture,” wrote Paul Shepard, the scholar of human ecology. And humans, as we now know, are not the only animals with culture by a long shot. (Para 2)

How different are we from other creatures? Humans are so closely related to apes you can share a blood transfusion from a chimp. We share 90 percent of our genetic material with all placental mammals (and 40 percent with a banana!). Even the word person does not derive from the single meaning “human”. Person comes from the word for mask, as in the Christian mystery of “God in Persons Three” (Father, Son, and Holy Spirit). A person means merely one of the many masks that God wears in this world—animal or human. This truth has long been recognized in many cultures, particularly indigenous societies. Many of these tribes tell creation stories that portray animals as the First People. In mythologies throughout the world, the theme re-emerges: Animals nurture and inspire us. (Para 3)

From Russia, Turkey, Liberia, India, Chile, and Greece, we find stories of animals who adopt human babies and raise them in their world. We read of monkey boys, gazelle girls, even an ostrich boy. From the Roman Romulus and Remus, the human twins raised by wolves, to the Sundarbans' Bonobibi, the orphaned-girl-become-goddess rescued by wild deer, our kind honors a kinship between humans and animals—and the special powers accorded to humans raised by our wild kin. Our fellow animals also sometimes frighten and repel us. (Para 4)

But even this can be instructive and often tells us more about ourselves than the objects of our fear. We interact continuously with fellow species, often in surprising ways. Both evolution and our sacred creation stories tell us that we belong together with our fellow animals, and that without them, we cannot be whole. (Para 5)

1) According to the information in the passage, which of the following is not considered a unique human attribute any longer?

- A) Using tools
- B) Flying aeroplanes
- C) Changing body colour
- D) Growing new limbs

2) According to the author, humans learned their culture:

- A) By hunting and gathering
- B) By observing the natural world
- C) By mining
- D) By farming

3) In the passage, the origin of the word “person” also suggests:

- A) A human being
- B) God
- C) An animal
- D) A mask that god wears

4) What does the passage tell us about human beings?

- A) Human beings have evolved independently from other mammals.
- B) Human beings are unique in their genetic material.
- C) Human beings share their genetic material with planetary mammals.
- D) Human beings are bananas.

5) According to the passage what can we learn from both evolutionary and mythological tales?

- A) Human beings are complete.
- B) Human beings are incomplete without fellow species.
- C) Human beings can survive without animals.
- D) Human beings should establish control over fellow species.

Which of the following words is closest in meaning to the word “metamorphose” as used in the sentence “Insects and amphibians metamorphose from one distinct form to another.” (Para 1)

- A) Transform
- B) Transplant
- C) Transport
- D) Transcribe

7) “Humans are so closely related to apes you can share a blood transfusion from a chimp”. If this sentence were rewritten to begin in the simple past tense, which of the options below would be the most correct version?

- A) Humans would be so closely related to apes you could share a blood transfusion from a chimp.
- B) Humans were so closely related to apes you could have shared a blood transfusion from a chimp.
- C) Humans will be so closely related to apes you can share a blood transfusion from a chimp.
- D) Humans are being so closely related to apes you can share a blood transfusion from a chimp.

8) Which of the following words is closest in meaning to the term “kinship” as used in the sentence ending “...our kind honors a kinship between humans and animal—and the special powers accorded to humans raised by our wild kin”. (Para 4)

- A) Love
- B) Variance
- C) Bond

D) History

9) Which of the following words is the closest antonym (opposite) of the word “repel” as used in the sentence “Our fellow animals also sometimes frighten and repel us.” (Para 4)

- A) Avoid
  - B) Disgust
  - C) Allure
  - D) Defy
- 

This is the dictionary definition of the word “nightie”: Noun. A woman’s nightgown or nightdress; a dresslike garment worn to bed. Here is an example of how the word is used in a sentence: “I was too embarrassed to answer the door in my nightie.” Obviously, this entry was not written by an Indian. (Para 1)

Indians are not embarrassed to do ANYTHING in a nightie. They wear them while leaning on the front gate and chatting with neighbours. They wear nighties to the grocery store, or to drop their children off to school. The nightie is a great social leveller, one of the most democratic items of clothing. (Para 2)

One brave school in Bangalore is now trying to put an end to this. Rosebuds school has issued a dress regulation for parents: No more dropping off your children in your nightwear. As expected, there has been complaint and criticism. “Setting rules for students is alright in order to maintain decency and discipline but enforcing such conditions on parents is illogical,” fumes one parent. “We should be concentrating on issues like punctuality and not what parents wore while dropping children off,” concurs another. (Para 3)

Rosebuds obviously does not realise the importance of the nightie. In the West, a nightie is a nightgown. But in India, the nightie has a new national reincarnation. When I was growing up my mother changed from her night-sari to her morning-sari every day. That was the way we marked the beginning of the day. Now, it is no longer bedtime attire: all those aunties, from Patiala to Mysore, run around all day with their nighties aflapping. (Para 4)

As the writer Santosh Desai explains in *The Wonderful World of the Indian Nightie*, the Indian nightie is careful to steer clear of anything lacy or transparent. It is firm in its modesty and feminine enough without really looking attractive. Fashion experts complain loudly against the nightie as some western import gone horribly wrong, like a dangerous weed that has taken over our cultural traditions. What these nightie-haters don’t realise is that the nightie is actually a triumph of Indian creativity and resourcefulness. It is now as Indian as khadi. The Indian woman has taken a piece of clothing and made it completely her own. She has adapted it to fit her own needs and comfort. “Its popularity has been generated not by any clever marketing but entirely by the user, who has seen in it a value not originally intended,” writes Desai. It is the shortest dress route to women’s liberation! (Para 5)

My aunt has various grades of nighties – from goodenough-to-receive-the-courier-in to good-enough-to-meet-her-son’s-classmates. Sabyasachi would certainly not design one, yet there are shops in Kolkata’s Gariahat and Bangalore’s Commercial Street that sell nothing but nighties. Kareena Kapoor does not advertise it on television but women still flock to buy it. No other article of clothing, not even the sari, enjoys such appeal all over the country. (Para 6)

Sneer all you want, but the humble nightie is the great leveller of classes. The daily household helper wears one. Her employer wears one. And often, there’s not that much difference between the two nighties. Surely, that’s something to cheer about in a country where the gap between the rich and the poor keeps getting more shockingly obvious. Let’s just make the nightie our national dress! (Para 7)



1) According to the author of this passage:

- A) The nightie is a convenient item of clothing but not many Indian women wear it.
- B) Nighties should be worn outside the home.
- C) Women in India often wear nighties when going out of their homes.
- D) An Indian man is usually embarrassed if his wife wears a nightie outside their home.

2) According to the passage, which of the following is true?

- A) Schools in Bangalore have always disallowed nighties.
- B) Bangalore schools have no dress rules for either children or parents.
- C) Parents of Bangalore school children now insist on dress regulations.
- D) Some parents are upset about the new dress rules for parents laid down by a school.

3) Which of the following ideas does the passage support?

- A) The nightie will always be something that marks out women as belonging in an elite class.
- B) Women from less privileged backgrounds can never afford nighties.
- C) Because so many women from different sections of society wear nighties in India, it is an item of clothing that promotes equality between women.
- D) Indian fashion designers are entering the nightie market with exclusive prints and patterns.

4) Which of the following is the main idea that the passage seeks to convey?

- A) While the nightie was originally a western item of clothing, it has now become a very Indian one.
- B) Western women also wear nighties outside their homes.
- C) The nightie is an adaptation of an old Indian dress called the maxi, which the British took back with them to England.
- D) The popularity of the nightie has spread worldwide in the 20th century.

5) Which of the following is an opinion held by the author of this passage?

- A) All schools should allow mothers of their students to wear nighties while dropping their children to school.
- B) Fathers should take responsibility for dropping their children to school, as mothers get busy in the morning with cooking and other housework.
- C) The huge demand for nighties arises from their extreme usefulness and comfort.
- D) Shops should sell salwar-kameez sets or saris because these are more decent clothes than nighties.

6) Which of the following words is the closest in meaning to the word “embarrassed” as used in the sentence: “I was too embarrassed to answer the door in my nightie”? (Para 1)

- A) unconcerned
- B) puzzled
- C) ashamed
- D) Disgusted

7) Which of the following phrases is the closest in meaning to the word “fumes” as used in the sentence ending “...fumes one parent”? (Para 3)

- A) says something worriedly
- B) says something angrily
- C) says something calmly
- D) says something acceptingly

8) Which of the following options would be a correct version of the following sentence if it was rewritten in -

the present tense: “My mother changed from her night sari to her morning sari every day.”

- A) My mother is going to change from her night-sari to her morning sari every day.
- B) My mother is changing from her night-sari to her morning sari every day.
- C) My mother changes from her night-sari to her morning sari every day.
- D) My mother will change from her night-sari to her morning sari every day.

9) Which of the following words is an antonym (opposite) of the word “triumph” as used in the sentence ending: “...a triumph of Indian creativity and resourcefulness”? (Para 5)

- A) defeat
  - B) success
  - C) fame
  - D) victory
- 

Researchers have uncovered traces of a lost continent that disappeared about 120 million years ago under what is today Europe. Geologists have seen hints of the continent, dubbed Greater Adria, for years. But the Mediterranean area is incredibly complicated, so piecing together its history took a decade of academic detective work. “The Mediterranean region is quite simply a geological mess,” geologist Douwe van Hinsbergen of Utrecht University, first author of the study says. “Everything is curved, broken, and stacked.” (1)

The story that the rocks tell begins on the supercontinent Gondwana, which would eventually split into Africa, South America, Australia, Antarctica and India. Greater Adria broke away from the mother continent about 240 million years ago, beginning a slow drift northward. Roughly 140 million years ago, it was about the size of Greenland, mostly submerged in a tropical sea, collecting sediment that hardened into rock. Then, roughly 100 to 120 million years ago, it hit the southern edge of future Europe, spinning counter-clockwise and moving at about 3 to 4 centimetres per year. (2)

As Robin George Andrews at National Geographic reports, the destruction of Greater Adria was complex. It hit several subduction zones, or areas where tectonic plates meet. In this case, the Greater Adria plate was trumped by the European plate, and most of it dove down into Earth’s mantle. The overlying plate scraped the top layers of Great Adria off. That debris eventually formed mountain ranges in Italy, Turkey, Greece, the Balkans and in the Alps. A few bits of Greater Adria escaped the plunge into the mantle and still exist in Italy and Croatia. (3)

Figuring out the story of Greater Adria was difficult, not only because of the geology but also due to human factors. Information about the continent is spread across many countries, from Spain to Iran. “Every country has their own geological survey and their own maps and their own stories and their own continents,” Hinsbergen tells Yasemin Saplakolu at LiveScience. “[With this study] we brought that all together in one big picture.” (4)

They also spent time constructing the continent's history by examining the orientation of tiny magnetic minerals created by bacteria trapped in the Adria rocks. From that data they were able to understand how much the rock layers rotated over time. They also pieced together structures like strings of volcanoes and coral reefs. New, more powerful software developed over the last 15 years or so also aided in reconstructing the lost land mass. (5)

The new study, apparently, isn't the only evidence for Greater Adria. In 2016, another team identified slabs of the continent in Earth's mantle using seismic waves. Nor is it the only "lost continent" out there. A large land mass called Zeelandia is submerged under two-thirds of a mile of water in the South Pacific and is considered the "eighth continent" by some researchers. In 2017, other scientists announced that they found a sunken "minicontinent" under the island of Mauritius in the Indian Ocean. (6)

(From: 'Study Reveals Lost Continent' by Jason Daley)

1) According to the passage, what is the name of the continent that broke into many continents?

- A) Greater Adria
- B) Gondwana
- C) Greenland
- D) Zeelandia

2) According to the passage, which of the following is true?

- A) Roughly 140 million years ago, Greenland was submerged in a tropical sea.
- B) About 100 million years ago, the northern edge of Africa hit the southern edge of Europe.
- C) About 120 million years ago, Europe began spinning counter-clockwise and moving at about 3 to 4 centimetres per year.
- D) About 240 million years ago, Greater Adria began to move towards the north.

3) Which of the following theories does the passage support?

- A) Europe was formed because Greater Adria moved to a place of tectonic pressure.
- B) The European continental plate was originally to be found close to the Earth's mantle in the Mediterranean.
- C) The European continental plate was stronger than that of Greater Adria.
- D) Debris from the shifting of the European plate is still to be found in Italy and Croatia.

4) Which of the following is the main idea that the passage seeks to convey?

- A) From a geological viewpoint, the Mediterranean region is a mess.
- B) Geologists now know of at least three "lost continents".
- C) There is evidence of a lost continent in the Mediterranean region, but tracing the history of that continent is difficult.
- D) Geologists have spent much time constructing the continent's history by examining the orientation of tiny magnetic minerals created by bacteria.

5) Which of the following is an opinion held by the author of this passage?

- A) Every country has their own geological survey and their own maps and their own stories and their own continents
- B) Everything in the Mediterranean area is curved, broken, and stacked.
- C) Human factors can sometimes complicate the reconstruction of our geological past.
- D) Zeelandia is the eighth continent.

6) Which of the following words is the closest antonym (opposite) of the word “submerged” as used in the sentence beginning:

“A large land mass called Zeelandia is submerged under two-thirds of a mile of water ...”? (Para 6)

- A) soaked
- B) floating
- C) discovered
- D) visible

7) Which of the following words or phrases is the closest in meaning to the word “sediment” as used in the

sentence ending “...collecting sediment that hardened into rock.”? (Para 2)

- A) reddish material found in continental plates
- B) clay particles that cling loosely together
- C) matter that settles at the bottom of a liquid
- D) thick, sticky fluid in the Earth’s mantle

8) What is the present tense of the word “dove”, used in the sentence ending “most of it dove down into Earth’s mantle”? (Para 3)

- A) dive
- B) drive
- C) diver
- D) divert

9) Which of the following words is the closest in meaning to the word “survey” as used in the sentence starting:

“Every country has their own geological survey”? (Para 4)

- A) study
  - B) collection
  - C) ascent
  - D) descent
-

To do something well you have to like it. That idea is not exactly novel. We've got it down to four words: "Do what you love." But it's not enough just to tell people that. Doing what you love is complicated. (1)

The very idea is foreign to what most of us learn as kids. When I was a kid, it seemed as if work and fun were opposites by definition. Life had two states: some of the time adults were making you do things, and that was called work; the rest of the time you could do what you wanted, and that was called playing. Occasionally the things adults made you do were fun, just as, occasionally, playing wasn't—for example, if you fell and hurt yourself. But except for these few anomalous cases, work was pretty much defined as not-fun. (2)

And it did not seem to be an accident. School, it was implied, was tedious because it was preparation for grownup work. The world then was divided into two groups, grownups and kids. Grownups, like some kind of cursed race, had to work. Kids didn't, but they did have to go to school, which was a diluted version of work meant to prepare us for the real thing. Much as we disliked school, the grownups all agreed that grownup work was worse, and that we had it easy. (3)

Teachers in particular all seemed to believe implicitly that work was not fun. Which is not surprising: work wasn't fun for most of them. Why did we have to memorize state capitals instead of playing dodgeball? For the same reason they had to watch over a bunch of kids instead of lying on a beach. You couldn't just do what you wanted. (4)

I'm not saying we should let little kids do whatever they want. They may have to be made to work on certain things. But if we make kids work on dull stuff, it might be wise to tell them that tediousness is not the defining quality of work, and indeed that the reason they have to work on dull stuff now is so they can work on more interesting stuff later. (5)

Once, when I was about 9 or 10, my father told me I could be whatever I wanted when I grew up, so long as I enjoyed it. I remember that precisely because it seemed so strange. It was like being told to use dry water. Whatever I thought he meant, I didn't think he meant work could literally be fun—fun like playing. It took me years to grasp that. (6)

By high school, the prospect of an actual job was on the horizon. Adults would sometimes come to speak to us about their work, or we would go to see them at work. It was always understood that they enjoyed what they did. In retrospect I think one may have: the private jet pilot. But I don't think the bank manager really did. The main reason they all acted as if they enjoyed their work was presumably the upper-middle class convention that you're supposed to. It would not merely be bad for your career to say that you despised your job, but also socially embarrassing. (7)

Why is it conventional to pretend to like what you do? The first sentence of this essay explains that. If you have to like something to do it well, then the most successful people will all like what they do. That's where the uppermiddle class tradition comes from. Just as houses all over America are full of chairs that are, without the owners even knowing it, nth-degree imitations of chairs designed 250 years ago for French kings, conventional attitudes about work are, without the owners even knowing it, nthdegree imitations of the attitudes of people who've done great things. (8)

What a recipe for feeling like misfits. By the time they reach an age to think about what they'd like to do, most kids have been thoroughly misled about the idea of loving one's work. School has trained them to regard work as an unpleasant duty. Having a job is said to be even harder than schoolwork. And yet all the adults claim to like what they do. You can't blame kids for thinking "I am not like these people; I am not suited to this world." (9)

Actually they've been told three lies: the stuff they've been taught to regard as work in school is not real work; grownup work is not (necessarily) worse than schoolwork; and many of the adults around them are lying when they say they like what they do. (10)

(Adapted from: 'How To Do What You Love' by Paul Graham)

1) The author of the above passage is likeliest to be:

- A) a person with no particular interest in the question of career choices
- B) a person with fairly well defined views on career choices
- C) a middle school student with some part time summer work experience
- D) a person of little education or significant work experience

2) According to the author of this passage, if children work on dull material in school:

- A) It is to make them ready for a career that will be even duller.
- B) They should be made aware that this is only in preparation for more interesting work in future.
- C) It is because teachers don't enjoy their work and take this out on students.
- D) It is because teachers cannot teach well enough or select the right material.

3) The passage states that:

- A) Work can never be enjoyable.
- B) Work is always enjoyable.
- C) Work should always be enjoyable.
- D) Work should be enjoyable but is not often so.

4) According to the author of this passage, children have the wrong idea about what work is like mainly because:

- A) They have no experience of the world outside school.
- B) They are told untruths about what work can be like by the adults around them.
- C) They are misfits.
- D) They do not pay attention in their school's career counselling sessions.

5) According to the author of this passage:

- A) People claim to enjoy their work because, in their minds, liking what one does is closely linked with success.
- B) People claim to enjoy their work because it is not as hard as getting an education
- C) People claim to enjoy their work because we can't all be private jet pilots.
- D) People claim to enjoy their work because, as bank managers, they control so much money

6) Which of the following words is the closest in meaning to the word "anomalous" as used in the sentence beginning:

"Except for these few anomalous cases..."? (Para 2)

- A) recent
- B) general
- C) true
- D) odd

7) Which of the following words is the closest in meaning to the word “foreign” as used in the sentence beginning

“The very idea is foreign....”? (Para 2)

- A) international
- B) domestic
- C) strange
- D) familiar

8) Which of the following words or phrases is the closest antonym (opposite) of the word “diluted” as used in the phrase

“a diluted version of work”? (Para 3)

- A) Misleading
- B) Concentrated
- C) Unnatural
- D) Early

9) The word “conventional” in the phrase

“conventional attitudes about work....” (Para 8):

- A) is the name of an object, and is therefore a noun
  - B) describes something, and is therefore an adjective
  - C) represents an action, and is therefore a verb
  - D) is a substitute for the name of an object, and is therefore a pronoun
- 

When Indian nationalist leaders assembled the jigsaw puzzle of diversities to define the nation, some pieces got left out of consideration. Among those were the country's original tribal inhabitants, now called Adivasis. Taken together, the Adivasis numbers match the population of Germany or Vietnam, but they are so various and widely dispersed that it is nonsensical to speak of them as a single group. One experience many Adivasis do share, however, is the overriding of their rights in the name of development and in the interests of other Indians, especially those with more money, who began to cover the bauxite, iron and coal in the forests inhabited by Adivasis. Although Adivasi efforts to defend their lands date back centuries, accounts of many of those struggles are lost to history. The life of one nineteenth-century rebel, Birsa Munda, is an exception. (1)

Born in 1875 in Chotanagpur, in present day Jharkhand, and raised in a bamboo hut, the young Birsa Munda herded sheep, played the flute and learned the medicinal power of local plants. In adulthood, he was known as a healer and mystic, and ultimately as a defender of his people against the British, their Indian middlemen and Christian missionaries. His was a firework of a life – he was dead by the age of twenty-five – but the embers of his struggle still burn. (2)

Birsa's family of tribes, the Kols, have occupied their land for more than 2,000 years. But by the nineteenth century this was a continuity under threat. The Kols' sense of being exploited and driven away was in part caused by a fundamental change in the British relationship to Indian land. Until the arrival of Wellesley as Governor General in 1798, the British had considered India a profitable trading post, and used local zamindars to collect taxes from the peasants. From then on, however, India was a territory to be possessed. Wellesley's land grabs included Mysore, the Maratha Deccan and many densely forested areas that were often amorphously controlled. By the nineteenth century the East India Company had seized huge chunks of Indian territory, including bits of princely India through such questionable legal tools as the Doctrine of Lapse. (3)

Birsa Munda's region, Chotanagpur, was seized in the 1860s under a series of laws called the Forest Acts. After this, tribes could no longer freely forage for food, collect firewood or graze livestock in their forests. Meanwhile, the British encouraged Indian outsiders, middlemen and merchants – 'Dikus', the Kol Mundas called them – to settle on the edges of the forests, assigning them rights to land that Kols considered common property. The Kols periodically tried to expel the British and the zamindars, most famously in the 1831 Great Kol Rising. (4)

By his early twenties, Birsa was involved in agitations against the British, Dikus and missionaries. The British arrested and sentenced him to two years in jail. This heightened the leader's popular mystique and his antipathy to the government. After his release, he ordered the burning of effigies representing the British Empire as the demon Ravana, and Queen Victoria as the demon queen Mandodari. In December 1899, he did exactly what the British had feared: he led his people to rebellion. Armed with axes and slingshots in addition to bows and arrows, Birsa's followers attacked the British, Dikus and Christians for the next few weeks. A police squad was confronted; a constable was cut to pieces. By January, the British were firing on mobs, catching innocent people in the crossfire. The uprising, which the Mundas called the Ulgulan, or Great Tumult, did not last long: colonial power crushed a people who had believed their leader's prophecy that British bullets would turn to water. Birsa fled to the jungle but was captured in March 1900. Three months later, possibly suffering from cholera, he died in his jail cell. (5)

Adapted from "Birsa Munda"; From Incarnations: India in 50 Lives by Sunil Khilnani

1) The author of the above passage believes that:

- A) Adivasis have been given their fair share of resources and facilities.
- B) Adivasis own most of the large mines and mining projects in the country
- C) Land and resources that belonged to Adivasis have been unfairly taken away from them.
- D) The profits of mining have been shared with Adivasis in an equitable way

2) When the author refers to Birsa Munda's as "a firework of a life", he means that:

- A) Birsa owned and was used to handling all kinds of firearms
- B) The Kol Munda community regularly asked Birsa to be the chief guest at Diwali celebrations
- C) Explosives used for mining purposes were stored in a dangerous manner behind Birsa's house
- D) Birsa lived a short but intense life

3) From the late 18th century onwards, the new British approach to land on the subcontinent led them to:

- A) Take control of extended areas once owned by local rulers



- B) Tax tribal communities at a higher rate than others
- C) Cancel the Doctrine of Lapse
- D) Return territories that had been grabbed by Wellesley

4) Which of the following statements would the author of this passage agree with?

- A) The British troops suffered defeat at Kol Munda hands.
- B) The uprising led by Birsa Munda was courageous and enthusiastic but based on an erroneous understanding of the capabilities of both sides in the conflict.
- C) The uprising led by Birsa Munda was always destined to succeed; only a last-minute hitch caused it to collapse.
- D) Birsa Munda was one of the best strategic military leaders in Indian history.

5) Which of the following words or phrases is closest in meaning to the word “dispersed” as used in the sentence ending “they are so various and widely dispersed that it is nonsensical to speak of them as a single group” (Para 1)?

- A) Concentrated
- B) Violent
- C) Superstitious
- D) Spread out

6) Which of the following words or phrases is closest in meaning to the word “amorphous” as used in the sentence ending many densely forested areas that were often amorphously controlled” (Para 3)?

- A) Unchanging
- B) Unclear
- C) Forced to submit
- D) Rebellious

7) Which of the following words or phrases is the closest antonym (opposite) in meaning to the word “antipathy” as used in the sentence “This heightened the leader’s popular mystique and his antipathy to the government.” (Para 5)?

- A) Liking
- B) Unpopularity
- C) Unfamiliarity
- D) Hatred

8) “In December 1899, he did exactly what the British had feared: he led his people to rebellion.” If this sentence were to be written in any of the future tenses, which of the following would be the best option?

- A) In December 1899, he had done exactly what the British had feared: he had led his people to rebellion.
- B) In December 1899, he would do exactly what the British had feared: he had led his people to rebellion.

- C) In December 1899, he would do exactly what the British feared: he would lead his people to rebellion.
- D) In December 1899, he did exactly what the British were fearing: leading his people to rebellion.

The origins of Indian cricket – as distinct from cricket in India – lie in an expanse of green ground at the southern end of the island of Mumbai, now ringed by those colossal colonial structures, the High Court, the University, St Xavier's and Victoria Terminus. Two hundred years ago the roads and buildings did not exist, and the grass was continuous. This ground was just outside the walls of the fort of black basalt within which lay the city's first settlement. In 1772, fearing a French attack, the British levelled and cleared the area to provide a clear range of fire. By 1800 the French threat had receded. Meanwhile the population of the fort, white as well as brown, had grown steadily. The acres of green grass now found more creative peacetime uses. The area was known to the Army as the Parade Ground, to the English civilians and their ladies as the Esplanade, and to everybody else as the Maidan. From the early 1800s the natives flocked to the Maidan in search of exercise and recreation. In a city sited on a long but narrow sliver of land, it was the only place to which they could go. (1)

European soldiers played cricket on the northern end of the Esplanade, with bats and ball imported from England and with their ladies in attendance. They soon found their imitators. Parsi boys were playing cricket here as early as the 1830s, their chimneypots serving as wickets and their umbrellas as bats in hitting balls stuffed with old rags and sewn by cobblers. These cricketers did not wear the regulation trouser-and-shirt; the pioneer Parsi cricketer went to the wicket with a white band around his forehead and a still whiter apron dangling from his waist, which was encircled by the sacred thread of his faith. (2)

For Parsi boys, cricket would very easily supplant *gilly danda* and *asookh mahasookh*. The first implements were of their own making, and the turf was not as smoothly cultivated as they would have wished. As one historian colourfully put it, it was on a "broken, irregular and rough ground overgrown with coarse grass that the pioneer Parsee cricketers learnt the alphabet of the noble English game, an inconvenience worsened by other circumstances". All day, one chunk of the Maidan was occupied by Muslim dyers, who spread out long strips of cloth coloured with indigo. Cricket balls occasionally wandered on to the drying cloth, which led to fights when the dyers threatened to confiscate them. More damagingly, a flying ball once struck the wife of a European constable out on her evening walk. After this incident, the Parsi cricketers were temporarily banned from the Maidan. (3)

Around 1848 the Parsi young men founded their first club, the Oriental Cricket Club. This was replaced by the Young Zoroastrian Club, which was funded by the emerging business houses of the Tatas and Wadias and is still going strong. At least thirty Parsi clubs were formed in the 1850s and 1860s, named for Roman gods and British statesmen: Jupiter, Mars, Gladstone, Ripon. The new prosperous Parsis welcomed the growth of cricket for strengthening ties with the colonial administrators. (4)

Annual prize matches between 1868 and 1877 enormously consolidated the Parsi interest in cricket. Individual achievement meshed nicely with community solidarity. Thus, when the Zoroastrian Cricket Club won the tournament in 1869, it distributed its 100 rupees prize as follows: 25 rupees for a new Parsi gymnasium, 20 rupees for Parsis recently impoverished by cholera, 5 rupees for the poor box, 20 rupees to buy bats, and 30 rupees for the club's reserve kitty. The prize worked marvellously in overcoming any residual inhibitions that the orthodox had as regards the English game. Old folks who were always denouncing "ball-bat" were seen wending their way to the cricket ground in the morning, basking there in the sunshine and watching the prize-matches. The conservatism of culture was easily vanquished by the spirit of competition. (5)

Adapted from *A Corner of Foreign Field: Indian History of a British Sport*, by Ramchandra Guha

1) The author of the above passage speaks of the early Parsi players of cricket in India with:

- A) Deep-rooted dislike
- B) Affection and gentle humour

- C) Distaste and suspicion
- D) Scorn or disdain

2) Which of the following statements is true according to the passage?

- A) Old Mumbai (or Bombay) had many spaces for inhabitants to participate in sports.
- B) Englishmen and Parsis played cricket in mixed teams for most of the 17<sup>th</sup> century
- C) The Maidan was one of the few places in the city where people could come to play or walk.
- D) The Parsis, being wealthy, were able to immediately start playing the game with the best possible bats

3) What were two of the obstacles faced by the early Parsi cricket players?

- A) Being disallowed from play for wearing religious symbols and traditional Parsi outfits.
- B) The danger of their balls landing on freshly dyed clothes and of possibly hitting people walking on the Esplanade.
- C) Not having proper bats and balls and having to pay a tax for playing cricket on the Maidan.
- D) Being forced to name their clubs first after Roman gods and then after British statesmen.

4) According to the author of the passage, which of the following statements is not true?

- A) Traditional Parsis did not approve of cricket, partly because it was a foreigners' game.
- B) All Parsis, young and old, immediately appreciated and welcomed the new game.
- C) Prize money played a part in the growing popularity of cricket among Mumbai Parsis.
- D) The Parsi clubs plowed their prize earnings back into activities and purchases that benefited the whole community.

5) Which of the following words or phrases is closest in meaning to the word "colossal" as used in the sentence ending "now ringed by those colossal colonial structures, the High Court, the University, St Xavier's and Victoria Terminus" (Para 1)?

- A) Huge
- B) Impressive
- C) Traditional
- D) British

6) Which of the following words or phrases is closest in meaning to the word "implements" as used in the sentence beginning "The first implements were of their own making" (Para 3)?

- A) Space
- B) Rules
- C) Equipment
- D) Prizes

7) Which of the following words or phrases is the closest antonym (opposite) of the word "vanquished" as used in the sentence "The conservatism of culture was easily vanquished by the spirit of competition" (Para 5)?

- A) Ignored
- B) Emphasized

- C) Defeated
- D) Victorious

8) "Meanwhile the population of the fort, white as well as brown, had grown steadily." If this sentence was written in the past continuous tense, which of the following would be the most correct version?

- A) Meanwhile the population of the fort, white as well as brown, grew steadily.
- B) Meanwhile the population of the fort, white as well as brown, had been growing steadily.
- C) Meanwhile the population of the fort, white as well as brown, was growing steadily.
- D) Meanwhile the population of the fort, white as well as brown, would be growing steadily.

In the early morning of April 28, 2017, a small fireball crept across the sky over Kyoto, Japan. And now, thanks to data collected by the SonotaCo meteor survey, researchers have determined that the fiery space rock was a shard of a much larger asteroid that might, far down the road, threaten Earth. (1)

The meteor that burned over Japan was tiny. Studying the SonotaCo data, the researchers determined that the object entered the atmosphere with a mass of about 1 ounce (29 grams) and was just 1 inch (2.7 centimeters) across. It didn't threaten anyone. But small meteors like this are interesting because they can offer data on the bigger objects that spawn them. And in this case, the researchers tracked the little rock back to its parent: an object known as 2003 YT1. (2)

2003 YT1 is a binary asteroid, composed of one large rock about 1.2 miles (2 kilometers) across orbited by a smaller asteroid that's 690 feet (210 meters) long. Discovered in 2003, the binary system has a 6% chance of hitting Earth at some point in the next 10 million years. That makes the object what researchers call a "potentially hazardous object," even though it's unlikely to hurt anyone in your lifetime. The binary didn't pass by Earth in 2017, so there wasn't an immediately obvious link between the meteor and its parent. But the researchers studied how the fireball moved across the sky and were able to reverse-engineer the object's orbit through space, pinning it to 2003 YT1 with a high degree of certainty. (3)

The researchers said they aren't sure how the little rock split off from 2003 YT1 but believe it's part of a larger stream of dust that got flung off of the asteroid. And they offered a few potential explanations for how that stream formed: Maybe tiny micrometeorites routinely strike the bigger asteroid in the binary, fragmenting it like bullets striking a rock wall. Or maybe changes in heat cracked one of the asteroid's surfaces, spitting small pieces into the dark. (4)

One scenario the authors offered is that the shards are a result of the process that formed the 2003 YT1 system in the first place. Most people likely imagine asteroids as great, big rocks, scaled-up versions of the stones they'd find here on Earth. But 2003 YT1, the authors wrote, is more likely a "rubble pile," a jumble of stuff loosely bound together by gravity that coalesced into two orbiting bodies at some point in the last 10,000 years. The forces holding the masses together as individual asteroids are likely weak, and as the two piles spin chaotically around one another, every couple of hours they could fling more of themselves into space. (5)

There are other, more exotic possibilities, the authors wrote. Water ice might be sublimating (turning from solid to gas) off one of the asteroids' surfaces and reforming as small balls of ice in open space. But that and other models are unlikely, the researchers wrote. For now, we know that Earth has been visited by a little part of a big asteroid. And that little part is likely itself a part of a stream of other little pieces that sometimes enter the Earth's atmosphere unnoticed. And at some point, far down the road, that big asteroid might follow its small children and slam into Earth. That fireball would be much, much bigger. (6)

(From: 'Fireball That Flew Over Japan' by Rafi Letzter )

1) According to the above passage, the fireball that flew over Kyoto:

- A) had a mass of about 27 grams and was 2.9 centimeters long.
- B) was small, yet large enough to threaten air safety for planes flying over the city.
- C) could tell us something scientifically valuable about its parent object.
- D) was one of the two bodies of a binary asteroid.

2) According to the passage, researchers are:

- A) not yet decided on the question of the origin of the fireball.
- B) undecided on whether the fireball can be conclusively traced to 2003YT1
- C) fairly certain that 2003YT1 is the origin of the fireball.
- D) fairly certain that 2003YT1 is a large asteroid.

3) The passage goes on to claim that:

- A) 2003YT1 is potentially harmless.
- B) The chances of 2003YT1 colliding with the earth are minimal because it is a binary asteroid.
- C) There is a small possibility of 2003YT1 colliding with the earth.
- D) There is a strong possibility of 2003YT1 colliding with the earth in our lifetime.

4) According to the passage, researchers believe that the Kyoto fireball:

- A) was definitely formed as a result of changes in temperature.
- B) is one of multiple possible fragments of the larger asteroid.
- C) has been conclusively proved to be the result of tiny meteorites striking the asteroid.
- D) is the only existing part of its parent object to be found in space.

5) In explaining how the Kyoto fireball came to be created, one possibility suggested by researchers is:

- A) Since the parent binary object is a loosely bound mass of material, its particles can regularly fly off as a result of its spinning movement.
- B) As the originating asteroid is a densely bound mass of material, its particles are held together by centripetal force.
- C) Because the larger asteroid is a binary entity, its two parts are in constant friction with each other, causing fragments to be created.
- D) Small balls of ice become strong enough in open space to batter against and begin breaking up much larger objects.

6) Which of the following words is closest in meaning to the word "shard" as used in the phrase "a shard of a much larger asteroid" (Para 1)

- A) Evidence
- B) Piece
- C) Solution
- D) Garbage

- 7) Which of the following words is closest in meaning to the word “spawn” as used in the sentence ending “...the bigger objects that spawn them.” (Para 2)
- A) Defeat
  - B) Nourish
  - C) Explain
  - D) give birth to
- 8) Which of the following phrases has the closest opposite meaning to the word “fragmenting” as used in the phrase: “..fragmenting it like bullets striking a rock wall.” (Para 4)
- A) breaking into small pieces
  - B) causing something to weaken
  - C) helping to hold together
  - D) converting solids into gases
- 9) What is the present tense of the word “sublimating” as used in the sentence beginning “Water ice might be sublimating ....” (Para 6)
- A) Sublime
  - B) Subliminal
  - C) Sublimate
  - D) Sublimity
- 

Each individual human being has a unique ancestral history, but a group of researchers set out to answer the ultimate question: Where do all humans come from? And it looks like they might have figured it out. Researchers claim in a new study that they have successfully traced the homeland of all modern humans to a region in northern Botswana. “We’ve known for a long time that modern humans originated in Africa roughly 200,000 years ago,” said the study’s co-author, geneticist Vanessa Hayes of the Garvan Institute. “But what we hadn’t known until the study was where exactly this homeland was.” The area that scientists have traced our supposed origins to is a place called Makgadikgadi-Okavango, where an enormous lake once stood. Scientists believe the area was home to a population of modern humans for at least 70,000 years. “It’s an extremely large area, it would have been very wet, it would have been very lush,” Hayes said. “And it would have actually provided a suitable habitat for modern humans and wildlife to have lived.” (1)

Some of the population began to migrate about 130,000 years ago after the region’s climate started to change, thus sparking the first migration of humans out of the continent. Scientists suspect there were waves of separate migrations, first toward the northeast and then toward the southwest. These early waves of human migration were determined based on hundreds of mitochondrial DNA — the part of a person’s genes passed down from their mother — of living Africans. (2)

So how did the scientists trace our common ancestors back to Botswana? According to the study published in the journal *Nature* researchers used modern genetic distributions to trace a specific lineage all the way back to its homeland origins. In this case, they analyzed DNA samples from 200 Khoisan people, an ethnic group in South Africa and Namibia, who carry a high amount of the L0 DNA. The L0 DNA is believed to be the oldest traceable DNA present among modern-day humans. Researchers then compared DNA samples with data from other external factors, such as climate change, geographical distribution, and archaeological shifts to create a genomic timeline. The timeline suggested a sustained lineage of L0 that stretched back 200,000 years. (3)

One of the biggest hurdles for scientists in tracing human ancestry is navigating the different migrations that occurred when ancient humans were roaming the Earth. But Hayes sees these migration events as “timestamps” on our DNA. “Over time our DNA naturally changes, it’s the clock of our history,” Hayes explained to AFP. (4)

It’s an exciting discovery for humankind, no doubt. But not everyone is convinced of the study’s conclusion. For one, there have been humanoid fossil remains believed to pre-date the L0 lineage benchmark. There are also complexities brought on by several factors that researchers need to consider when trying to narrow down the source of our collective DNA, as researcher Chris Stringer from the UK’s Natural History Museum pointed out. (5)

“Like so many studies that concentrate on one small bit of the genome, or one region, or one stone tool industry, or one ‘critical’ fossil, it cannot capture the full complexity of our mixed origins, once other data are considered,” Stringer said in a statement posted on Twitter. Stringer argued that previous findings have suggested that the Y-chromosome in modern humans likely came from West Africa, not Southern Africa where Botswana is, which underscores the possibility that our ancestors came from multiple homelands instead of one. (6)

He also cited a separate study published in the journal Science that suggested “Southern African populations did not represent ancestors for the rest of humanity, and out-of-Africa populations originated in East Africa.” In any case, both of Stringer’s arguments could potentially rule out Botswana as the origins of modern humans. There is still much debate on the subject — and more research to be done — but studies that seek to determine where we came from all help us get closer to finding out our prehistoric origins. (7)

(From ‘Researchers Traced The Ancestral Homeland of Modern Humans to Botswana’ by Natasha Ishak)

1) The above passage refers to a study that makes the following important claim:

- A) Modern humans originated in Asia roughly 200,000 years ago.
- B) Modern humans definitely originated in North Africa.
- C) Modern humans originated in a place in Botswana that was once a large forest.
- D) Modern humans originated in a place in Botswana that was once the site of a large lake.

2) According to the passage, the same study suggests that:

- A) The first humans were born in Africa about 130000 years back.
- B) Early humans migrated out of their first homeland about 130000 years ago.
- C) It took 70000 years for our early ancestors to evolve into full humans.
- D) The region’s climate started to change about 70000 years ago.

3) Explaining how researchers came to formulate their theory, the author of the passage tries to show the connection between:

- A) Ancient humans and our prehistoric animal ancestors
- B) Ancient humans and their early homeland
- C) Modern humans and prehistoric humans linked by a particular DNA strand
- D) Modern humans and their fertile environment

- 4) According to the author of the passage, which of the following may disprove the theory cited in the early paragraphs?
- A) Some fossil remains are believed to contain more convincing evidence than L0 DNA.
  - B) The Y-chromosome is not found in L0 DNA.
  - C) The L0 DNA is believed to be the oldest traceable DNA present among modern-day humans.
  - D) Some fossil remains are believed to contain DNA that is older than L0 DNA.
- 5) The author cites the opinion of an expert to support the idea that:
- A) A single piece of evidence is always crucial to decisions about tracing DNA.
  - B) When forming a theory about DNA, a single piece of evidence is not enough to correctly reflect the varied nature of human origins.
  - C) Researchers are in complete agreement on what constitutes evidence in respect of the DNA of our early ancestors.
  - D) There are no other significant factors that might change theories about origins that are based on tracing DNA.
- 6) Which of the following sentences contains the future tense of the phrase: "...it would have been very lush." (Para 1)
- A) it was very lush
  - B) it was going to be very lush
  - C) it will be very lush
  - D) it was becoming very lush
- 7) Which of the following word or phrases is closest in meaning to the word "habitat" as used in the phrase  
"a suitable habitat for modern humans and wildlife". (Para 1)
- A) an area good for hunting and fishing
  - B) a fertile territory for agriculture
  - C) a place to live in
  - D) a location in which human remains were discovered
- 8) Which of the following words or phrases is closest in meaning to the word "navigating" as used in the phrase  
"navigating the different migrations". (Para 4)
- A) sailing a ship
  - B) choosing a direction
  - C) coming to a conclusion
  - D) finding no proof



- 9) Which of the following phrases is closest in meaning to the word “underscores” as used in the sentence ending “which underscores the possibility that our ancestors came from multiple homelands instead of one.” (Para 6)
- A) makes an idea clearer
  - B) emphasizes or draws attention
  - C) denies the truth of an idea
  - D) adds additional evidence
- 

In the ship’s cockpit we talk about flotsam: things that find their way into the vastness of the seas, and float and float, and finally maybe wash ashore. Below, in the green glow of the navigation station, the captain plots our course: east through the South Atlantic, north to Ascension Island. On board is Marcus Eriksen, an eco-stuntman, who drifts on rafts across seas and down rivers, as well as a serious scientist, commissioning vessels and plying his plankton trawls, collecting data, and speaking about the threat of plastic pollution in the sea. Thanks to environmental gadflies like him, and emotionally affecting documentaries about wildlife deaths from plastic ingestion and entanglement, this is a well-known phenomenon, if still under-studied and vastly underestimated. (1)

For the quantities in play now beggar the human imagination. Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash has been amassing since World War II in floating dumps, some of which exceed millions of square miles. Round and round the all-too-durable plastic goes, huge quantities caught up in the great oceanic gyres. These “garbage patches,” are out of sight and out of mind, but not entirely inactive. Like all things the sea claims, plastic too suffers a sea change. And the ultimate harm our throw-away effluvia might yet do, to the health of the sea and the human future, nobody knows for sure. (2)

Though Marcus has voyaged to four of the world’s five major gyres (the North Pacific, South Pacific, North Atlantic, and Indian Ocean), studying their respective garbage patches, this is his first South Atlantic trip. In fact, no one has ever sailed here specifically to study this gyre’s burden of plastic trash. Now he regards the primary research device, a high-speed plankton trawl, with equal parts pride and skepticism, saying, “It might sink. Or flip over.” It’s a sleek steel box with a keel and wings, trailing a plankton net. He chucks it into the water; the lines snap taut, the trawl, called the Silver Surfer, gulps a mouthful of Atlantic, flips, rises, swoops into the trough, commencing its search for signs that we’ve entered the South Atlantic gyre. The hunt is on for the Great South Atlantic Garbage Patch. (3)

The secretariat of the Stockholm Convention on Persistent Organic Pollutants has announced the historic addition of nine new toxic chemicals—tongue-twisting giant molecules like alpha hexachlorocyclohexane—to the global danger list. POPs are feared to be accumulating in a carcinogenic brew. For really, the middle of the ocean, outside shipping lanes, could just as well be Mars in terms of how little we know about it. One Australian study had trawled the great gyres and missed 99% of the plastic rubbish. Had they been in the wrong places at the wrong time? Was the plastic sinking? “Indisputably,” one scientist concluded, marine animals are eating some if not most of it. What will happen to us when we eat them? (4)

The five major oceanic gyres make up a quarter of the Earth’s surface. Underneath the apparent chaos of the world’s weather, the gyres turn like clockwork, driven by the sun and the Earth’s rotation. A bit of flotsam entering the current off the coast of Brazil might make it all the way to West Africa and then bob on back to where it started in about three years. Or it might catch an eddy and maroon in mid-ocean. At the center of every subtropical gyre is a giant high-pressure zone of fair weather and little or no wind, the dreaded “doldrums” of the age of sail. Things get trapped amid these still waters. (5)

We train our headlamps on our findings: lots of battered little fish and black halobates flies. And, among unidentifiable mucous chunks, bright bits of colorful confetti: particulate plastic pollution. The oceanographer Curtis Ebbesmeyer coined the phrase “garbage patch” in the 1990s, comparing it to “a big animal without a leash.” It sloshes around at the whim of the weather; close to land, it vomits up a load of plastic debris: cigarette lighters, toothbrushes, toys, containers, but mostly minute chips and shards, a horrifying fake plastic “sand” creating a plasticized beach. A wealthy California sailor, Charles Moore, took a shortcut home from Honolulu in 1997. What he saw – nets, towing ropes, Japanese

traffic cones, quarts of American-made oil, drums of hazardous chemicals, tires, volleyballs - amazed and appalled him. He travelled for 10 days and never saw a clean stretch of sea. Ever since, he has exhausted his voice, and much of his fortune, telling the world about it. (6)

Adapted from The Terrifying True Story of the Garbage that could Kill the Whole Human Race, by Bucky McMahon, medium.com, Aug 2014.

Selected word meanings:

gyre: a circular or spiral motion or form

gadflies: persistent and annoying insect; here, a persistent person

effluvia: waste by-product

plankton: minute forms of life on the surface of water

The author's main purpose in the above passage is:

- a) to prove that there are nine new toxic chemicals on the global danger list
- b) to prove that the Silver Surfer trawler invented by Marcus really works
- c) to show that waste has accumulated in the seas in highly dangerous quantities
- d) to show that Charles Moore had the money to travel for 10 days in the waters near Honolulu

Why does the author compare certain parts of the oceans with Mars?

- a) to show that humans have travelled the oceans far more easily than they have travelled to Mars
- b) to discuss the discovery of water on Mars and the possibility of life there
- c) to highlight how little is known about those areas of the sea
- d) to show the similarities between the Silver Surfer and the latest Mars spaceship

Why does the author talk about the "bit of flotsam" in Para 5?

- a) to show that small objects easily float in sea water
- b) to demonstrate that the sea contains only tiny bits of waste matter
- c) to show the interconnectedness but also the randomness of currents
- d) to identify the fair-weather zones where ships can safely sail

While talking to us about pollution in the seas, the author mentions:

- a) Two international agencies and two individuals who have acted out of concern over pollution
- b) Two international agencies and three individuals who have acted out of concern over pollution
- c) An international agency and two individuals who have acted out of concern over pollution
- d) One international agency and three individuals who have acted out of concern over pollution

What does the description "big animal without a leash" tell us about garbage patches?

- a) they are four-legged and carnivorous
- b) we need a license to own them and must buy leashes to take them out
- c) they are large and dangerously out of control
- d) they can easily be tamed for human purposes

Which of the following words or phrases is closest in meaning to the word “navigation” as used in the sentence beginning “Below, in the green glow of the navigation station...”? (Para 1)

- a) drawing a map to be able to guide future travellers
- b) planning to move in a particular route or direction
- c) related to ships or naval activity
- d) required for all anti-pollution steps

Which of the following words is the closest antonym (opposite) of the word “amassing” as used in the phrase “plastic trash has been amassing”? (Para 2)

- a) collecting in huge quantities
- b) dispersing or breaking up
- c) wandering on the current
- d) reappearing on beaches

Which of the following phrases is the closest in meaning to the word “clockwork” as used in the phrase “underneath the apparent chaos of the world’s weather, the gyres turn like clockwork”? (Para 5)

- a) in a disorganized and erratic way
- b) at an alarming speed
- c) having an ability to show the passage of time
- d) with machine-like regularity

Which of the following words or phrases is the closest in meaning to the word “debris” as used in the phrase “close to land, it vomits up a load of plastic debris”? (Para 6)

- a) the remains of something broken down or destroyed
- b) the total waste debited from the world’s seas
- c) the results of long-lasting nausea or seasickness
- d) material that can be productively reutilized

“Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash has been amassing in floating dumps, some of which exceed millions of square miles.” If this sentence were to be written in the future tense, which of the following would be the correct version?

- a) Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash will have been amassing in floating dumps, some of which will exceed millions of square miles.
  - b) Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash has amassed in floating dumps, some of which has exceeded millions of square miles.
  - c) Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash will amass in floating dumps, some of which will exceed millions of square miles.
  - d) To be dumping or accidentally spilling from ships, blowing from landfills, washing down rivers, plastic trash is to amass in floating dumps, some of which exceeded millions of square miles.
- 

It was meant to be a quick trip to the CR Park Market. My mother needed to buy some vermillion and incense sticks for a puja, when she laid her eyes on the *patali gur* strategically placed right outside the shop. She got a kilo packed and got into the car with a big grin on her face, gloating about the great deal she had struck with the shopkeeper for the *gur*. The rest of us were just happy that we were taking the season’s first *patali gur* to the house. In Bengali households across the country, this is one of the most-awaited seasons of the whole year, for this is the season when date palm jaggery or *khejurer gur* takes over dessert fare. Come winter, and out come the jars of jaggery. (1)

Jaggery can broadly be classified into two types: one is extracted from sugarcane, which is also delicious, but for Bengalis is second in the jaggery hierarchy. It occupies a lower rung, below nolen gur or new date palm jaggery. Date palm jaggery, made from the sap of the phoenix sylvestris palm is further divided into two kinds, jhola gur and patali gur. Jhola is derived from the word jhol which in Bengali refers to a kind of liquid. This dense and luminous liquid jaggery is available for an even smaller time window and is used to sweeten a variety of desserts. Patali gur is the solidified version that comes in small, brittle cakes. Sweets made with date jaggery of both kinds are usually made around the festive time of Sankranti. (2)

Around the 4th century BC, the Siuli artisans of Pundra Bardhan (now Bogra) in Bengal started extracting the sap of the date palm tree to sell at weekly local markets. The jaggery made with this sap became so popular that Pundra Bardhan came to be known as Gour (after gur). Records of the time detail the tedious nature of the work. The Siulis would scale the thorny date palms at night to tap them and cut the flower clusters. They would then hang an earthen container at the end of the branch to collect the sap. They had to be wary of the temperature and the timing, as the minute the climate turned humid or rainy, the sap would begin to turn turbid, making it unfit to eat. Similarly, even slight exposure to the sun's heat would cause the sap to ferment and turn into an alcoholic form. It is said that their elders and experienced jaggery makers could test the purity of the jaggery simply by looking at its consistency, what modern science terms 'Brix value'. This value is indicative of the amount of sugar present in the solution and should be between 118 and 120 percent for the perfect jaggery. (3)

Most food scientists agree that jaggery is a healthy substitute for sugar. A pinch of jaggery after a meal or added to your food stimulates the production of digestive enzymes. Another advantage of jaggery is its iron content, which promotes the production of haemoglobin and helps those battling anaemia. A study titled *The Benefits of Indian Jaggery Over Sugar on Human Health* found that due to the micronutrient content of jaggery raises its antitoxic and anticarcinogenic efficacy. Studies also suggest that the high manganese content in jaggery is beneficial for us as it improves signalling among neurons and can prevent brain degeneration. Another study titled *Review on Recent Advances in Value Addition of Jaggery Based Products* explores the health benefits of jaggery and claims that it contains longer chains of sucrose in comparison to sugar and is therefore digested more slowly by the body. Thus, energy release is also slow, ensuring a release over a long period of time. This ensures that blood sugar levels do not shoot up rapidly. (4)

Adapted from What Makes 'Nolen Gur' The Queen of Jaggery In Bengal? by Sushmita Sengupta, Slurp, November 2022 and Origins of Nolen Gur, A Healthy Winter Fave Behind Many Perfect Bengali Desserts by Krystelle Dsouza, The Better India, November 2022

Which of the following statements is true according to the above passage?

- a) All Indians prefer date palm jaggery to the sugarcane version.
- b) People in the CR Park area in Delhi always buy jaggery when they go shopping.
- c) Between sugarcane and date palm jaggery Bengalis prefer the latter.
- d) Date palm jaggery is the best jaggery made anywhere in the world.

Which of the following statements is true according to the above passage?

- a) Jhola gur and patali gur are two different forms of the same kind of jaggery.
- b) Jhola gur is made in the summer while patali gur is made in the winter.
- c) Patali gur is a liquid jaggery whereas jhola gur is a solid jaggery.
- d) Patali gur is made from date palm sap while jhola gur is made from sugarcane juice.

Which of the following attitudes does the author of the above passage reveal?

- a) Impartiality towards jaggery varieties since all Indians use jaggery as a sweetener
- b) A bias towards a particular kind of jaggery, likely based on the food habits in her home state
- c) Disapproval of the quantity of sweets that Bengalis customarily consume
- d) Concern for the fall in jaggery production in the last three years

According to the passage, which aspects of the jaggery production process need special attention?

- a) The special puja to be conducted according to traditional rites at the start of the jaggery season
- b) Collecting the date palm flowers at the end of branches at the right time of day and the right temperature, while also avoiding atmospheric dampness as far as possible
- c) Making sure the jaggery reaches the weekly market while it is still fresh and edible
- d) Collecting the sap of the date palm at the right time of day and the right temperature, while also avoiding atmospheric dampness as far as possible

Why does the author of the passage mention the two articles named in the final paragraph?

- a) To prove that jaggery should be exported to countries that do not grow sugarcane or date palms
- b) To claim the comparative benefits of the shorter sucrose chains in sugar
- c) To show that jaggery has many health benefits
- d) To show that jaggery prices have been rising as people have come to realise its benefits

Which of the following words or phrases is the closest in meaning to the word “strategically” as used in the sentence ending “strategically placed right outside the shop” (Para 1)?

- a) sensibly organized on shelves
- b) required to keep jaggery from spoiling
- c) planned or designed for a specific result
- d) unnecessary for the purpose intended

Which of the following words is the closest antonym (opposite) of the word “gloating” as used in the sentence ending “gloating about the great deal she had struck with the shopkeeper for the *gur*” (Para 1)?

- a) lamenting
- b) congratulating
- c) affording
- d) bargaining

Which of the following words is the closest in meaning to the word “tedious” as used in the sentence “Records of the time detail the tedious nature of the work”. (Para 3)?

- a) dangerous
- b) boring
- c) skilled
- d) simple

Which of the following words or phrases is the closest antonym (opposite) of the word “degeneration” as used in the sentence ending “can prevent brain degeneration” (Para 4)?

- a) healthy growth
- b) abnormal function
- c) alarming medical reports
- d) pertaining to the generation after Gen C

“The jaggery made with this sap became so popular that Pundra Bardhan came to be known as Gour.”  
If this sentence were to be written in the future tense, which of the following would be the closest correct version?

- a) The jaggery made with this sap will become so popular that Pundra Bardhan will come to be known as Gour.
  - b) The jaggery made with this sap is becoming so popular that Pundra Bardhan is now to be known as Gour.
  - c) The jaggery made with this sap became so popular that Pundra Bardhan would come to be known as Gour.
  - d) The jaggery made with this sap becomes so popular that Pundra Bardhan will be coming to be known as Gour.
-