

VARC

Read the passage below and answer the questions that follow:

So far, we have told the story of progress as one of humanity climbing out of poverty, isolation, disease and death into abundance, connectedness, health and safety. More fundamentally, it is a story of the expansion of human agency. Our primitive ancestors lived at the mercy of nature. They ate what food they found: what edible plants happened to be growing nearby, what game they could catch. They fashioned tools, clothing, and shelter out of found materials: wood, stone, leaves and grass; the hide, hair, bones, or shells of animals. They might temper these materials with fire, but they could not fundamentally transform them. And as nomads, they were forced to limit their possessions to what could be carried. Until about ten thousand years ago, they did not even have draft animals; they controlled no power sources other than their own muscles.

They had little choice of where to live: when local food resources ran out, they moved on—and they were constantly on the move. They had little choice of what to do with their lives, as any division of labour within the tribe was extremely limited—hunting, foraging, and tool-making—and much of that was determined by social roles. They had little choice of whom to socialise with: they were a part of the community they were born into. When their environment changed, they had to simply react as best they could. They had little to no ability to predict the weather or to grasp climate change. They had no techniques to prevent disease, not even washing hands or boiling water. They fell victim to attacks from wild animals and to raids from other tribes. Estimates of historical world population show very low growth rates for a very long time, which implies high mortality. Although they lived as best they could, although they applied all their intelligence, effort, and will, and although they were surely no less clever and brave than you or I, the life they could create was still merely a tiny enclave carved out of a vast world.

The advent of agriculture and settled society over ten thousand years ago was a major leap forward in human agency. For the first time, we ate not the plants we found and the game we caught in the wild, but the crops we had sown and the livestock we had raised. We chose where to live and we made our homes, finally able to invest in them for the long term. The first settlers and agriculturalists did not have much choice in these things, and their options were poor. They probably worked harder than hunter-gatherers, and they had smaller stature, indicating worse nutrition. Some have interpreted the shift to agriculture as a mistake, even “the worst mistake” in history. More likely, hunter-gatherers were led or forced into agriculture by circumstances beyond their control, such as rising population density or climate change. To call this evolution a “mistake” is

ahistorical: a mistake implies a choice, but primitive peoples could not direct the course of their societies, nor even comprehend when a change of this magnitude was occurring. The lesson instead is the extremely limited agency of hunter-gatherer societies: even if they enjoyed their lifestyle, they were unable to keep it when the environment changed.

1. The primary purpose of the passage is to:

- A. Compare the nutritional advantages of agriculture with those of hunter-gatherer societies.
- B. Demonstrate that early humans lacked intelligence and creativity compared to modern humans.
- C. Trace the evolution of human agency from dependence on nature to the beginnings of self-determination.
- D. Argue that the shift from hunter-gathering to agriculture was a historical mistake.

2. Which of the following, if true, would most strengthen the author's rejection of the view that agriculture was a "mistake"?

- A. Archaeological evidence shows hunter-gatherers had better health indicators than early farmers.
- B. Climate changes and increasing populations forced groups into agriculture regardless of preference.
- C. Oral histories from primitive tribes suggest they willingly abandoned nomadic life for stability.
- D. Anthropologists argue that agriculture reduced leisure time compared to hunting and foraging.

3. If the author's framework of "human agency" were applied to the Industrial Revolution, which of the following would best align with his perspective?

- A. Workers' poor living conditions prove that industrialisation was a mistake.
- B. Industrial advances marked a further expansion of agency, despite initial hardships.
- C. Industrial societies were less healthy than agricultural ones, so progress was reversed.
- D. The move to industrialisation was purely voluntary, unlike earlier societal shifts.

4. The author argues that agriculture should not be considered a "mistake" because early humans lacked true choice in the matter. Which of the following, if true, would most weaken this claim?

- A. Evidence shows that some tribes experimented with small-scale farming while still practising hunting and gathering.
- B. Archaeological data indicate that the first farmers were shorter and worked harder than hunter-gatherers.

- C. Hunter-gatherer societies often split or migrated to avoid adopting new practices.
- D. Anthropological studies suggest that agriculture reduced social diversity within tribes.

5. Five jumbled-up sentences (labelled 1, 2, 3, 4 and 5), related to a topic, are given below. Four of them can be put together to form a coherent paragraph. Identify the odd sentence and key in the number of that sentence as your answer.

1. Early European efforts to create a global standard for writing Mayan languages have enabled the preservation of great works of literature like the Popol Vuh and Chilam Balam, but the initial attempts were fraught with miscommunications and rivalries.
2. A bishop named Diego de Landa convinced a Mayan scribe, Gaspar Antonio Chi, to match, letter for letter, the signs of the Mayan script and the Spanish alphabet.
3. The scribe's frustration with de Landa is evident in the last exercise that he completed for the bishop. Asked to pen any sentence in Mayan hieroglyphs, Chi wrote: "I don't want to."
4. When the scribe heard the Spanish pronunciation of the letter 'b,' says Pallán, he wrote the sign for bih, which means "road."
5. The long line of code-breakers to take on Mayan hieroglyphs started with Spanish colonists in the sixteenth century.

6. Five jumbled-up sentences (labelled 1, 2, 3, 4 and 5), related to a topic, are given below. Four of them can be put together to form a coherent paragraph. Identify the odd sentence and key in the number of that sentence as your answer.

1. This analysis implicated the axons (output connections) of neurons as well as parts of the cortex and deeper "subcortical" brain regions like the striatum, involved in movement.
2. These findings tally with brain-imaging studies suggesting dysfunction of some regions in insomnia, and with animal studies implicating these cells in sleep regulation.
3. It also tagged "medium spiny neurons," which occupy most of the striatum as well as neurons in other regions, including the hypothalamus.
4. The researchers then investigated which brain regions and cells these genes frequently turn up in.
5. In fact, it is probable that insomnia is not a singular condition but a cluster of symptoms grouped, which can have a range of underlying causes.

7. The passage given below is followed by four alternate summaries. Choose the option that best captures the essence of the passage.

The trees themselves are medicines, too many to name them all: white pines, red spruce, hemlock, fir, beech, maple, birches, and aspen, all of which were known and learned from by Indigenous botanists. Colonist records show that when the French and British invaders arrived here, they were a sickly lot, many near death from scurvy. They describe how Native healers prepared tree teas for them, by which they were restored to health. Northern white cedar earned the French name arborvitae, "tree of life," for this salvation, which was provided by Indigenous scientists and the trees that carried the medicine. When I am across the Blue Line, I try to drink tree tea every day, a cup of fragrant white pine tea giving me a daily requirement of vitamin C and the knowing that our bodies, mine and the pine's, are united.

A. Indigenous knowledge of medicinal trees once saved European colonists from scurvy, and this tradition continues to be honoured through the daily practice of tree teas that connect humans and nature.

B. European colonists, suffering from diseases such as scurvy, introduced Indigenous communities to tree teas, which later became an important cultural practice.

C. Native healers used tree-based medicines only during colonial times, but these practices have no relevance in modern health and nutrition.

D. Tree teas, such as white pine, are valued primarily for their taste, while their role in history and medicine is largely symbolic.

8. *There is a sentence that is missing in the paragraph below. Look at the paragraph and decide where (option 1, 2, 3, or 4) the following sentence would best fit.*

Sentence: Between 1933 and 1967, the Lakenhalle was meticulously rebuilt, with old material being reused when that was possible, or new when it wasn't.

Paragraph: Similar rebuilding occurred in Belgium following the First World War. ____ (1) _____. The town centre of Ypres, which came under intense artillery fire, had been almost completely destroyed, including the Lakenhalle, or cloth hall. ____ (2) _____. The massive market building, of Gothic design, dates from the thirteenth century, when Ypres was a centre of the flourishing Flemish textile industry. ____ (3) _____. The library of the Catholic University of Leuven is another Belgian example. It was located in a lakenhalle of more recent vintage, dating back only to the seventeenth century, that was burned to the ground by vindictive German troops. ____ (4) _____. Its replacement, built with American funds, was a grander version in the same Flemish Renaissance style, and when that building was destroyed in the Second World War, it was carefully restored.

A. Option 1

B. Option 2

C. Option 3

D. Option 4

9. *There is a sentence that is missing in the paragraph below. Look at the paragraph and decide where (option 1, 2, 3, or 4) the following sentence would best fit.*

Sentence: They are the job creators in cities and towns across this country. They are the heartbeat of American communities.

Paragraph: Universities also have an important role to play in supporting small businesses. Research shows that teaching core management skills can improve key business outcomes, such as profitability and growth.

____(1)____. We recommend that business and trade schools increase their focus on small firms and the unique challenges they face. ____ (2)____. Whether through executive programs for small-business owners or student consulting projects, universities have a significant opportunity to lean into supporting Main Street entrepreneurs. ____ (3)____. Thirty-five million small businesses are the engine of the U.S. economy. ____ (4)____. As the nation undergoes rapid and profound policy shifts, we encourage leaders in government and academia to take action to ensure that Main Streets across America not only endure but thrive.

- A. Option 1
- B. Option 2
- C. Option 3
- D. Option 4

10. *The four sentences (labelled 1, 2, 3 and 4) given below, when properly sequenced, would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer.*

1. Ideally, children would be monitored before puberty and until sexual maturity is reached.
2. Determining the effect of SBIF on human reproductive development requires a long-term commitment, both on the part of the investigator(s) as well as the subjects.
3. Furthermore, reproductive capacity should be assessed throughout potential child-bearing years.
4. This would allow potential differences in reproductive organ development to be discerned.

DILR

Eight trains depart from Delhi to different cities at different times of day. The destination cities are Jaipur, Agra, Nagpur, Mumbai, Kolkata, Bhopal, Patna, and Raipur. The following information is known about them:

- The trains departing for Agra and Kolkata depart at a time difference of 12 hours. One of them is the last train to depart.
- The train to Jaipur departs at 6:00 am and travels at a speed of 100 km/hr, which is the second-highest speed among all trains.
- The train to Bhopal is the first to depart, at a speed of 70 km/hr. The train to Nagpur is the fastest.
- Three trains depart after the train to Raipur departs; the next one departs an hour later.
- The speed of the train to Patna is half that of the train to Jaipur and departs immediately after the train to Raipur.
- The sum of the speeds of the Mumbai and Agra trains is equal to the speed of the Jaipur train.
- The train to Mumbai departs at 11:30 am after three trains have already departed.
- The train to Agra departs at 7:00 am with a speed of 40 km/hr, which is half the speed of the train to Raipur, departing at 2:00 pm.
- One of the trains departs at 2:30 am and another at 4:30 pm.
- The speeds of the three fastest trains are in an Arithmetic Progression with a difference of 10 km/h.

11. What is the speed of the train departing at 11:30 am?

- A. 50 km/hr
- B. 70 km/hr
- C. 40 km/hr
- D. 60 km/hr

12. In which of the following triplets are the speeds of the trains not in arithmetic progression?

- A. Agra, Mumbai, Raipur
- B. Bhopal, Raipur, Jaipur
- C. Patna, Bhopal, Kolkata
- D. Agra, Patna, Mumbai

13. Arrange the following cities in the ascending order of the departure of their respective trains.

- A. Agra, Jaipur, Patna, Nagpur
- B. Agra, Jaipur, Nagpur, Patna
- C. Jaipur, Agra, Patna, Nagpur
- D. Jaipur, Agra, Nagpur, Patna

14. How many trains depart between the trains that depart for Agra and Patna?

15. The second slowest train departs for which city?

- A. Patna
- B. Agra
- C. Mumbai
- D. Raipur

Given below is the division of a number by another. In the representation, each of the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 has been coded with one letter, with distinct letters representing distinct digits.

$$\begin{array}{r}
 \text{OUT} \\
 \text{STEM} \overline{) \begin{array}{l} \text{DEMI SE} \\ \text{DMOC} \end{array}} \\
 \underline{\text{TUIS}} \\
 \text{STEM} \\
 \underline{\text{ZZZE}} \\
 \text{ZUMM} \\
 \underline{\text{IST}}
 \end{array}$$

16. What digit does M represent?

- A. 4
- B. 5
- C. 6
- D. 7

17. Which letter represents the digit 8?

- A. D
- B. S
- C. O
- D. E

18. What is the quotient (OUT)?

19. What is the remainder (IST)?

- A. 623
- B. 413
- C. 321
- D. 432

20. What number is represented by DICES?

QA

21. A ball is dropped from a height of 81 cm. After each bounce, it rises to two-thirds of the previous height. What is the total distance travelled by the ball in the air by the time it strikes the ground for the fifth time?

- A. 422 cm
- B. 341 cm
- C. 260 cm
- D. 211 cm

22. In rhombus ABCD, points M and N are chosen on sides AB and BC, respectively, such that triangle DMN is equilateral and $AD = MD$. Find the measure of angle $\angle ABC$.

- A. 100°
- B. 120°
- C. 80°
- D. 90°

23. A shopkeeper buys 70 kg of rice for Rs. 1750. If he sells it at the market price, he makes a profit of Rs. 2100. He mixes the rice with some lower-quality rice costing Rs. 10 per kg. Selling this mixture at the same market price, his profit increases to Rs. 3900. Find the quantity (in kg) of the cheaper rice mixed.

24. a , b , and c are distinct digits. If $aabc = (a + b + c)^3$, find $a+b+c$.

- A. 2
- B. 3
- C. 4
- D. 5

25. If $f(x) = \frac{x^3}{3} + \frac{x^2}{2} + \frac{x}{6}$ for all positive integers x , and $f(n) - f(n-1) = 2025$, find the value of $f(\frac{n-3}{6})$.

- A. 96
- B. 125
- C. 140
- D. 204

26. How many real roots does the equation $\frac{20}{10+x^{10}} = 11^x + 11^{-x}$ have?

27. ABC is a right-angled triangle, right-angled at B. $AB = 12$ and $BC = 9$ cm. P is any point on AB. A line from P, parallel to BC, intersects AC at Q. A line from Q, parallel to AB, intersects BC at R. Find the minimum distance PR.

- A. 7.5 cm
- B. 8.4 cm
- C. 7.2 cm

D. 9 cm

28. Kamal goes to his village by bicycle. Some portion of the way is uphill, some is flat road, while the rest is downhill. Kamal's speeds uphill, downhill and on a straight road are 6, 8.4 and 7 km/h, respectively. While going to his village, he took 1 hour and 45 minutes, but while returning, he took 2 hours and 15 minutes. Find the distance between his house and his village.

- A. 12 km
- B. 14 km
- C. 16 km
- D. Cannot be determined

29. One needs to place 4 distinct balls into 5 distinct boxes. In how many ways can it be done such that exactly 3 of the boxes do not have any balls?

30. Two pipes, A and B, can fill a tank in 75 minutes and 90 minutes, respectively. Both pipes are opened simultaneously. After some time, pipe B is turned off such that the tank is filled in exactly one hour. If instead of pipe B, pipe A were turned off, how much extra time would it take to fill the tank?

- A. 8 minutes 24 seconds
- B. 8 minutes 40 seconds
- C. 7 minutes
- D. 7 minutes 35 seconds

MBA KARO