

VARC

Read the passage below and answer the questions that follow:

In 1177BC, Amurapi, the last king of Ugarit in modern-day Syria, wrote in cuneiform on baked clay to the Hittite emperor Suppiluliuma II: "My father behold, the enemy's ships have come; my cities were burned, and they did evil things in my country." Soon, both the Hittite and Ugaritic kingdoms were lost to history.

More than 2,000 years later, in AD822, an artisan was carving Altar L, a monument of succession as Yax Pasaj Chan Yopaat passed the rulership of the Maya kingdom of Copan in modern Honduras to Ukit Took. At some point, he dropped his chisel and left his work of political art unfinished. Within the next eight years, the institutions of government in Copan would dissolve. And by the 10th century, the last few squatters had abandoned the ghost city, with its palaces and temples swallowed by the forest. Jumping forward to 1521, Cuauhtemōc, the last Aztec emperor, sent a desperate emissary to the Tarascan empire to the west, an archenemy of the Aztecs. They went to raise reinforcements to battle the army of the Spanish conquistador Hernán Cortés, which had laid siege to the Aztec capital, Tenochtitlan.

The first emissaries were sacrificed and sent to the afterlife. The second diplomatic mission came bearing gifts for the new Tarascan emperor, Tangaxuan II, such as crossbows and swords captured from the conquistadors. The weapons piqued the emperor's curiosity, so he sent a delegation to Tenochtitlan to see if the untrustworthy Aztecs were telling the truth. But the Tarascans never arrived. They were met by refugees who told them to turn back as there was nothing but the smell of death in the Aztec city. Both Cuauhtemōc, Tangaxuan II, and their empires met horrific deaths at the hands of Cortés. Like the bronze age people of the Middle East, the great empires of Mesoamerica, and thousands of other peoples whose lives and nations now lay buried in the earth, we too are failing to react to the warning signs that could make the difference to whether humanity survives. As the Union of Concerned Scientists, a non-profit consortium based in the US, announces: "Climate change is one of the most devastating problems that humanity has ever faced – and the clock is running out."

In September 2024, a report compiled by the World Meteorological Organization stated: "The science is clear – greenhouse gas emissions are rising, global temperatures are shattering records and extreme weather is wreaking havoc with our lives and our economies ... The decisions we make today could mean the difference between a future of breakdown or a breakthrough to a better world for people and the planet." This report came nine months after a World Economic Forum model indicated that the

world is on track for 14.5 million deaths and US\$12.5 trillion in economic losses due to the climate crisis by 2050. In fact, since at least the 1970s, when my father was working with Jia-Yin Wang at San Jose State University on instruments used for monitoring the environment, we should have been heeding the warnings that it was time to begin to adjust our behaviour.

1. All of the following civilizations are mentioned in the passage as examples of societal collapse except:

- A. The Hittite Empire
- B. The Roman Empire
- C. The Ugaritic Kingdom
- D. The Aztec Empire

2. The primary purpose of the passage is to:

- A. provide a historical account of the specific reasons for the collapse of three distinct ancient civilizations.
- B. demonstrate that external invasions have historically been a more significant cause of societal collapse than internal decay or environmental factors.
- C. critique the leaders of ancient kingdoms for their diplomatic and military failures in the face of existential threats.
- D. use the precedent of historical societal collapses to frame the current inaction on climate change as a recognizable and perilous pattern.

3. The author includes the details of the artisan at Copan leaving his work on Altar L "unfinished" primarily to:

- A. suggest that the collapse of the Maya was caused by an internal artistic rebellion.
- B. provide a specific, archaeologically verified date for the succession of Ukit Took.
- C. create a powerful, symbolic image of a society's abrupt and incomplete disintegration.
- D. contrast the gradual decline of Copan with the sudden destruction of Ugarit and Tenochtitlan.

4. Which of the following can be inferred from the passage about the nature of the "warning signs" in both the ancient and modern examples?

- A. They signaled a problem that was already in an advanced and potentially irreversible stage.
- B. They were esoteric and required complex interpretation by a specialized class.
- C. They were consistently ignored due to a universal belief in divine protection.
- D. They were primarily focused on economic rather than human losses.

5. *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: These design and marketing choices suggest that using a smartphone in certain ways while driving can be safe.

Paragraph: New model cars enable drivers to utilise a number of their smartphone's functionalities while driving (including hands-free calling), all accessed through increasingly complex dashboard touchscreen 'infotainment' systems. ____ (1) _____. Even steering wheels themselves are often equipped with buttons for making and accepting calls. ____ (2) _____. These dashboards computing systems, enabling 'connectivity' with the world outside the car, are often a central feature of automotive advertising campaigns. ____ (3) _____. This suggestion is amplified by the social pressures that many drivers may feel – the pressure to stay connected to others, to take work calls, or to answer messages from friends. ____ (4) _____.

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

6. *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. Out of all these people, there must be at least one who is living the worst possible version of my life, and there will be countless more living very bad lives.
2. What's more, suffering will be in each of our futures, even if we don't know which future and which version of us will have to endure it.
3. Many-Worlds interpretation claims that there are multiple versions of me, each of whom shares parts of my past but not my present, nor my future.
4. In other words, there is much more suffering in the Everettian multiverse than there is in a singular universe.

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

Hawkins posted a photograph of the nature-inspired designs on Twitter. "If the academia plan doesn't work out, I'm taking my material culture interests to the cookie industry," she captioned the image. After going about her day, she returned to her computer to find the post had garnered thousands of likes. In the two years since her viral tweet, Hawkins has developed a sizable social media following. Fans flock to her accounts for her stunning cookie designs, which emulate book covers, scalloped-edged Tiffany lamps, pottery shards, mosaic tiles, medieval manuscripts, Elizabethan fabrics and more. To make this "biscuit art,"

Hawkins covers a gingerbread or sugar cookie-like base with royal icing. She uses food coloring gel and vodka to paint patterns onto the cookies, then adds raised elements by piping on royal icing.

A. Hawkins turned an academic setback into an opportunity to explore her creative side, gaining online fame for cookies that reflect her fascination with historical and artistic motifs.

B. What began as a lighthearted social media post about cookie designs unexpectedly evolved into a successful creative pursuit, earning Hawkins a devoted online following and recognition for her intricately painted "biscuit art."

C. After her post on Twitter went viral, Hawkins left academia entirely and began a new career focused on producing handcrafted cookies inspired by traditional European art and cultural artifacts.

D. Hawkins' growing fame as a cookie artist demonstrates how social media can transform personal hobbies into artistic movements, especially when rooted in cultural and historical influences.

8. 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. The result: more motor neurons survived on that side of the spinal cord.

2. Why were there more neurons in an embryo than actually needed and why did some die off?

3. Hamburger had been studying central nervous system development in the 1930s.

4. Hamburger's idea was that the muscles targeted by those neurons supplied a limited amount of trophic, or nutrient, factors.

5. Using chicken embryos and those spinal cord motor neurons, he showed that there were more neurons in the developing embryo than there would be in the adult chicken.

9. 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. However, the modern world makes this denial increasingly difficult, and in some cases impossible.

2. In some cases, trying to avoid them creates bigger problems.

3. While we can vaccinate against the COVID-19 virus, or avoid crocodile-infested waters, many of our permeabilities can't be avoided.

4. Understanding ourselves as 'people' rather than 'food' requires us to deny or ignore our entanglement with the natural world.

10. 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: When we converse, we're following norms around things like how long our pauses are allowed to be, whose turn it is to speak, and what topics are appropriate.

Paragraph: ____ (1) ____ . Awkward silences are conversational silences: they arise during conversation, and they are potentially awkward if they happen when someone should be speaking. ____ (2) ____ . I don't feel awkward about my current silence because I'm not engaged in conversation. If I were, my silence probably would feel awkward. ____ (3) ____ . To understand why, we can look to the idea that awkward silences happen when someone should be speaking. This 'should' relates to conversational norms. ____ (4) ____ .

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



DILR

There are seven coaches in a goods train, C1, C2, C3, C4, C5, C6 and C7. Each coach had a different weight (in tons) of goods among 33, 37, 42, 48, 53, 56 and 59. Before departure, some goods from coaches C3, C4 and C7 were shifted to the remaining four coaches, such that the total weight of the goods before and after shifting was equal. The weight of goods shifted was a positive integral multiple of 1 ton.

- Weight of goods in C6 was more than C2 before shifting.
- C4 contained 11 tons more goods than C3 before shifting.
- 15 tons of goods were shifted from C3 to coach C2, and no other shifting was done from/to these two coaches.
- 20 tons of goods were added to C1.
- After shifting, the maximum weight of a coach was 57 tons.
- C5 contained more goods than C6, but less than C7, before shifting.
- 18 and 14 tons of goods were shifted from C7 and C4, respectively.
- Weight of goods in C6 after shifting was at least 53 tons.

11. What was the weight of goods (in tons) in coach C4 before the shifting?

12. Which coach had the least weight after shifting?

- A. C3
- B. C4
- C. C7
- D. Can't be determined

13. By how many tons did the weight of C5 increase after the shifting?

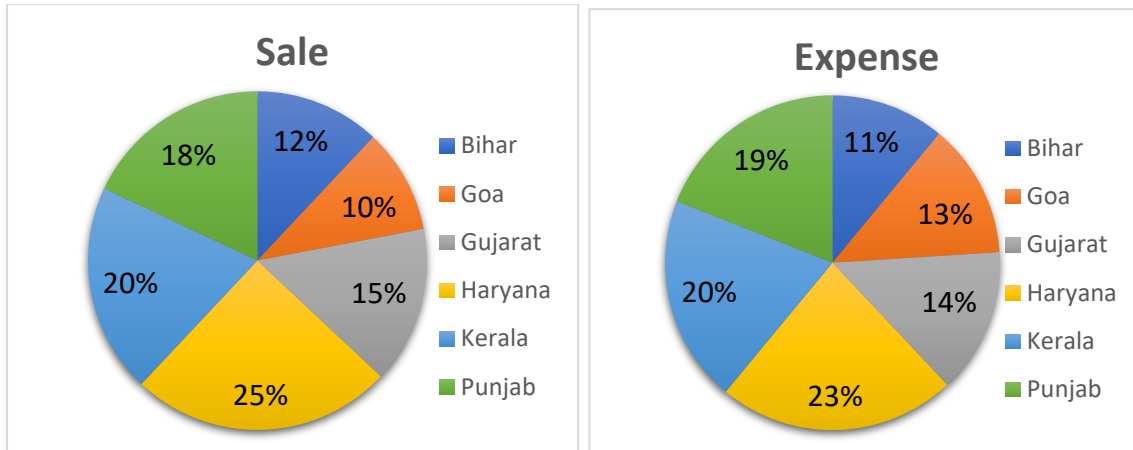
14. How many coaches weighed between 40 and 50 tons after the transfer of goods?

- A. None
- B. 1
- C. 2
- D. 3

15. What is the difference between the median weight of the coaches before and after the shifting of goods?

- A. 3 tons
- B. 2 tons
- C. 1 ton
- D. 0

A company operates in six states. In 2024, the company was at a loss in all six states. The pie charts show the state-wise distribution of sales and expenses.



Profit = Sales - Expenses (If Sales > Expenses);

Loss = Expenses - Sales (If Expenses > Sales);

Profit Margin % = Profit/Sale * 100;

Loss Margin % = Loss/Sale * 100

16. Which of the following cannot be the total loss margin percentage suffered by the company?

- A. 8%
- B. 10%
- C. 12%
- D. 15%

17. In which state did the company suffer the minimum loss margin?

- A. Goa
- B. Kerala
- C. Haryana
- D. Kerala

18. In which state did the company suffer the maximum loss margin?

- A. Goa
- B. Bihar
- C. Haryana
- D. Insufficient Data

19. In 2024, the company suffered a total loss margin of 25%. Which of the following is not the loss margin percentage sustained by the company in one of the states?

- A. 15%
- B. 16.67%
- C. 25%
- D. 33.33%

20. In 2024, the company suffered a total loss margin of 25%. Suppose in 2025, the total expenses in all the states remain the same and the proportion of sales across the states remains the same, by how much

should the overall sales increase so that the company breaks even in all the states?

- A. 66.67%
- B. 62.5%
- C. 55.55%
- D. 48.33%



QA

21. Three runners, Ajay, Bimal, and Charan, start simultaneously from the same point on a circular track of length 1200m. Ajay and Charan run clockwise with speeds of 5 m/s and 2 m/s, respectively, while Bimal runs anti-clockwise with a speed of 3 m/s. What is the total number of distinct points on the track where any two of the three runners will meet?

- A. 16
- B. 14
- C. 12
- D. 8

22. Find the sum of all the three-digit numbers that are not divisible by 5 or 3.

23. Given the function $f(x) = x^2 + ax + 5$. If the graph of $f(x)$ passes through points $A(1, 5)$ and $B(-1, c)$, find the distance between A and B.

- A. $\sqrt{5}$
- B. $\sqrt{6}$
- C. $\sqrt{8}$
- D. $\sqrt{10}$

24. $\frac{2^4+2^2+1}{2^7-2} + \frac{3^4+3^2+1}{3^7-3} + \frac{4^4+4^2+1}{4^7-4} + \dots + \frac{2025^4+2025^2+1}{2025^7-2025} + \frac{1}{2 \cdot 2025 \cdot 2026}$

- A. 0.25
- B. 0.125
- C. 0.375
- D. 0.5

25. The annual income of a person was Rs. 15,43,347, and his annual expenditure was Rs. 10,28,898. Next year, his income increased by 14% and his expenditure by 7%. What was the percentage increase in his savings?

- A. 21%
- B. 28%
- C. 35%
- D. 42%

26. An equilateral triangle has a side length of p units. Another equilateral triangle is inscribed in the above triangle by joining the midpoints of the sides of the triangle, and this process is continued infinitely. If the sum of the areas of all such triangles is $36\sqrt{3}$ if units, find the value of p .

- A. $6\sqrt{3}$
- B. $4\sqrt{3}$
- C. 6
- D. $3\sqrt{3}$

27. If $5^x = 3^y = 45^z$, then

- A. $\frac{1}{x} = \frac{1}{y} + \frac{2}{z}$
B. $\frac{2}{y} = \frac{1}{x} + \frac{1}{z}$
C. $\frac{1}{x} = \frac{2}{y} + \frac{1}{z}$
D. $\frac{1}{z} = \frac{1}{x} + \frac{2}{y}$

28. Two jars, P and Q, contain the same quantity of a mixture of milk and water. The milk and water in P and Q are in the ratios 5:2 and 4:1, respectively. What will be the ratio in which these two mixtures have to be blended to obtain a new mixture of milk and water in the ratio of 3:1?

- A. 5:6
B. 1:1
C. 4:3
D. 7:5

29. A sphere with volume V is fully contained in a cone. What is the minimum volume of the cone needed to contain the sphere fully?

- A. $3V$
B. $2.5V$
C. $2V$
D. $1.5V$

30. A batsman has played 7 innings with an overall average of 55 runs. His average score in the first 3 innings is 41. In the fourth innings, he scored 21 runs more than in the fifth innings. The average score in the sixth and seventh innings is 32.5 runs higher than the average of the first three innings. How many runs did he score in the fourth innings?

MBA KARO