

IPMAT 2025 Question Paper with Solutions

Time Allowed :2 Hours	Maximum Marks :360	Total Questions :90
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. The exam is conducted in a Computer-Based Test (CBT) format.
2. There is a separate, individual time limit for each section, and candidates cannot switch between them after a section begins.
3. The total duration is 2 hours (120 minutes) for the 100-question exam.
4. Correct answers worth +4 marks and incorrect ones resulting in -1 marks.
5. Candidates will be eligible for a Personal Interview after qualifying for the aptitude test.

Quantitative Ability - SA

1. A circle of radius 13 cm touches the adjacent sides AB and BC of a square ABCD at M and N, respectively. If $AB = 18$ cm and the circle intersects the other two sides CD and DA at P and Q, respectively, then the area, in sq. cm, of triangle PMD is -----

2. Monica, who is 18 years old, is one-third the age of her father. The age at which she will be half the age of her father is -----

Comprehension for Q.3, Q.6, Q.8

Five teams—A, B, C, D, and E—each consisting of 15 members, are going on expeditions to five different locations. Each team includes members from three different skill sets: biologists, geologists, and explorers. However, the number of members from each skill set varies by team and each member has only one speciality. The total number of biologists, geologists, and explorers are equal.

The following additional information is available

- Every team has at least 2 members from each of the three skill sets.
- Teams C and D have 6 biologists each, and Team A has 6 geologists.
- Every team except A has more biologists than explorers.

- The number of explorers in each team is distinct and decreases in the order A, B, C, D, and E.
-

3. The number of biologists in team E is -----

4. If $\log_3(x^2 - 1)$, $\log_3(2x^2 + 1)$ and $\log_3(6x^2 + 3)$ are the first three terms of an arithmetic progression, then the sum of the next three terms of the progression is -----

5. English exam and Math exam were conducted separately for a class of 120 students. The number of students who did not appear for the English exam is twice the number of students who did not appear for the Math exam. The number of students who passed the Math exam is twice the number of students who appeared but failed the English exam. If the number of students who passed the English exam is twice the number of students who appeared but failed the Math exam, then the number of students who appeared but failed the English exam is -----

Comprehension for Q.6, Q.8

Five teams—A, B, C, D, and E—each consisting of 15 members, are going on expeditions to five different locations. Each team includes members from three different skill sets: biologists, geologists, and explorers. However, the number of members from each skill set varies by team and each member has only one speciality. The total number of biologists, geologists, and explorers are equal.

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- Every team has at least 2 members from each of the three skill sets.
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 - The number of explorers in each team is distinct and decreases in the order A, B, C, D, and E.
-

6. The number of teams having more geologists than biologists is -----

7. If $A = \begin{bmatrix} 2 & n \\ 1 & 4 \end{bmatrix}$ such that $A^3 = 27 \begin{bmatrix} 4 & q \\ p & r \end{bmatrix}$, then $p + q + r$ equals -----

8. The median number of biologists across five teams is _____

9. If the polynomial $ax^2 + bx + 5$ leaves a remainder 3 when divided by $x - 1$, and a remainder 2 when divided by $x + 1$, then $2b - 4a$ equals _____

10. If m and n are two positive integers such that $7m + 11n = 200$, then the minimum possible value of $m + n$ is _____

11. If the sum of the first 21 terms of the sequence $\ln \frac{a}{b}, \ln \frac{a^2}{b^3}, \ln \frac{a^3}{b^5}, \dots$ is $\ln \frac{a^m}{b^n}$, then the value of $m + n$ is _____

12. Arpita and Nikita, working together, can complete an assigned job in 12 days. If Arpita works initially to complete 40% of the job, and the remaining job is completed by Nikita alone, then it takes 24 days to complete the job. The possible number of days that Nikita requires to complete the entire job, working alone, is _____

13. Eight teams take part in a tournament where each team plays against every other team exactly once. In a particular year, one team got suspended after playing 3 matches, due to a disciplinary issue. The organizers decide to proceed, nonetheless, with the remaining matches. The total number of matches that were played in the tournament that year is _____

14. If a, b, c are three distinct natural numbers, all less than 100, such that $|a - b| + |b - c| = |c - a|$, then the maximum possible value of b is _____

15. The number of factors of $3^5 \times 5^8 \times 7^2$ that are perfect squares is _____

Quantitative Ability - MCQ

Q.1 A circle touches the y-axis at (0, 4) and passes through the point (-2, 0). Then the radius of the circle is

- (1) 5
 - (2) 2.4
 - (3) 3.7
 - (4) 4.6
-

Q.2 In triangle ABC, $AB = AC = x$, $\angle ABC = \theta$ and the circumradius is equal to y. Then $\frac{x}{y}$ equals

- (1) $2 \cos \theta$
 - (2) $2 \sin \theta$
 - (3) $\sin \theta$
 - (4) $\cos \theta$
-

Q.3 The remainder when $11^{1011} + 1011^{11}$ is divided by 9 is

- (1) 0
 - (2) 7
 - (3) 9
 - (4) 8
-

Q.4 A natural number n lies between 100 and 400, and the sum of its digits is 10. The probability that n is divisible by 4, is

- (1) $\frac{7}{27}$
 - (2) $\frac{1}{4}$
 - (3) $\frac{2}{9}$
 - (4) $\frac{1}{3}$
-

Q.5 Suppose a, b and c are three real numbers such that $\text{Max}(a, b, c) + \text{Min}(a, b, c) = 15$, and $\text{Median}(a, b, c) - \text{Mean}(a, b, c) = 2$. Then the median of a, b and c is

- (1) 11
- (2) 9.5

- (3) 10.5
 - (4) 10
-

6. Let A(1,3) and B(5,1) be two points. If a line with slope m intersects AB at an angle of 45° , then the possible values of m are

- (1) $5, \frac{-1}{5}$
 - (2) $7, \frac{1}{7}$
 - (3) $3, \frac{1}{3}$
 - (4) $-3, \frac{1}{3}$
-

7. If $y = a + b \log_e x$ then which of the following is true?

- (1) $\log_e y$ is proportional to x
 - (2) e^y is proportional to x^b
 - (3) $y - a$ is proportional to x^b
 - (4) $\frac{1}{y-a}$ is proportional to x^b
-

8. Consider a triangle with side lengths 4 meters, 6 meters, and 9 meters. A dog runs around the triangle in such a way that the shortest distance of the dog from the triangle is exactly 1 meter. The total distance covered (in meters) by the dog in one round is

- (1) $22 - 2\pi$
 - (2) 22
 - (3) $19 + 2\pi$
 - (4) $22 + 2\pi$
-

9. The set of all values of x satisfying the inequality $\log_{(x+\frac{1}{2})} \left[\log_2 \left(\frac{x-1}{x+2} \right) \right] > 0$ is

- (1) $(-5, -2)$
 - (2) $(2, 5)$
 - (3) Null set
 - (4) $(5, \infty)$
-

10. Let $P(x)$ be a quadratic polynomial such that $\begin{vmatrix} P(0) & P(1) \\ P(0) & P(2) \end{vmatrix} = 0$. Let $P(0) = 2$ and $P(1) + P(2) + P(3) = 14$. Then $P(4)$ equals

- (1) -14
 - (2) -6
 - (3) 30
 - (4) 16
-

11. If $8x^2 - 2kx + k = 0$ is a quadratic equation in x , such that one of its roots is p times the other, and p, k are positive real numbers, then k equals

- (1) $(p + \frac{1}{p})$
 - (2) $(\sqrt{p} + \frac{1}{\sqrt{p}})^2$
 - (3) $2(p + \frac{1}{p})$
 - (4) $2(\sqrt{p} + \frac{1}{\sqrt{p}})^2$
-

12. The sum of the first 5 terms of a geometric progression is the same as the sum of the first 7 terms of the same progression. If the sum of the first 9 terms is 24, then the 4th term of the progression is

- (1) 24
 - (2) -24
 - (3) -48
 - (4) 48
-

13. A and B take part in a rifle shooting match. The probability of A hitting the target is 0.4, while the probability of B hitting the target is 0.6. If A has the first shot, post which both strike alternately, then the probability that A hits the target before B hits it is

- (1) $\frac{9}{19}$
 - (2) $\frac{2}{3}$
 - (3) $\frac{1}{2}$
 - (4) $\frac{10}{19}$
-

14. Two swimmers, Ankit and Bipul, start swimming from the opposite ends of a swimming pool at the same time. Ankit can cover the length of the pool once in

10 minutes. Bipul can cover the length of the pool once in 15 minutes. They swim back and forth for 80 minutes without stopping. The number of times they meet each other is -----

- (1) 5
- (2) 7
- (3) 6
- (4) 8

15. Let $S_1 = \{100, 105, 110, 115, \dots\}$ and $S_2 = \{100, 95, 90, 85, \dots\}$ be two series in arithmetic progression. If a_k and b_k are the k -th terms of S_1 and S_2 , respectively, then $\sum_{k=1}^{20} a_k b_k$ equals -----

- (1) 138250
- (2) 137275
- (3) 135375
- (4) 137225

16. Let A and B be two finite sets such that $n(A - B)$, $n(A \cap B)$, $n(B - A)$ are in an arithmetic progression. Here $n(X)$ denotes the number of elements in a finite set X . If $n(A \cup B) = 18$, then $n(A) + n(B)$ is -----

- (1) 36
- (2) 30
- (3) 27
- (4) 24

17. If $\log_{25}[5 \log_3(1 + \log_3(1 + 2 \log_2 x))] = 1/2$ then x is

- (1) 4
- (2) 16
- (3) 8
- (4) 2

18. Area of a regular octagon inscribed in a circle of radius 1 unit is

- (1) $2\sqrt{2}$
- (2) $\frac{9}{2\sqrt{2}}$

- (3) $\sqrt{10}$
 - (4) $2 + \sqrt{2}$
-

19. The number of integers greater than 5000 and divisible by 5 that can be formed with the digits 1, 3, 5, 7, 8, 9 where no digit is repeated is

- (1) 240
 - (2) 180
 - (3) 120
 - (4) 276
-

20. Let $f(x) = a^2x^2 + 2bx + c$ where, $a \neq 0$, b, c are real numbers and x is a real variable then

- (1) $f(x)$ has no minimum and no maximum
 - (2) $f(x)$ has a maximum and a minimum
 - (3) $f(x)$ has a minimum and no maximum
 - (4) $f(x)$ has a maximum and no minimum
-

21. Anindita invests a total of 1 lakh rupees distributed across three schemes A, B and C for a period of two years. These schemes offer an interest rate of 10%, 8% and 12% per annum, respectively, each compounded annually. If the initial investment amount in scheme A is 30000 rupees and the total interest earned from all the three schemes during the first year is 10600 rupees, then the total interest earned, in rupees, from all the three schemes for the second year is _____

- (1) 10308
 - (2) 19708
 - (3) 11748
 - (4) 22348
-

22. If a_1, a_2, \dots, a_8 are the roots of the equation $x^8 + x^7 + \dots + x + 1 = 0$, then the value of $a_1^{2025} + a_2^{2025} + \dots + a_8^{2025}$ is

- (1) 0
- (2) 8
- (3) 4

(4) 2

23. The area of the triangle, formed by the straight lines $y = 0$, $12x - 5y = 0$, and $3x + 4y = 7$, is -----

- (1) $\frac{28}{9}$
 - (2) $\frac{14}{9}$
 - (3) $\frac{35}{27}$
 - (4) $\frac{35}{54}$
-

24. Given that $1 + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \dots = \frac{\pi^2}{6}$, the value of $1 + \frac{1}{3^2} + \frac{1}{5^2} + \frac{1}{7^2} + \dots$ is

- (1) $\frac{\pi^2}{6} - 1$
 - (2) $\frac{\pi^2}{12}$
 - (3) $\frac{\pi^2}{8}$
 - (4) $\frac{\pi}{6}$
-

25. Which of the following numbers is divisible by $3^{10} + 2$?

- (1) $3^{30} + 2$
 - (2) $3^{20} + 4$
 - (3) $3^{30} + 8$
 - (4) $3^{20} + 8$
-

Comprehension for Q.26 to Q.30

The table given below provides the details of monthly sales (in lakhs of rupees) and the value of products returned by the customers (as a percentage of sales) of an e-commerce company for three product categories for the year 2024. Net sales (in lakhs of rupees) is defined as the difference between sales (in lakhs of rupees) and the value of products returned (in lakhs of rupees).

26. Among the following four months, for which month the value of the Footwear returned (in lakhs of rupees) was the highest?

- (1) March
- (2) July
- (3) June

Month	Sales (in lakhs of rupees)			Value of products returned (as a percentage of sales)		
	Apparel	Footwear	Electronics	Apparel	Footwear	Electronics
January	262	104	289	13%	7%	2%
February	279	113	387	16%	9%	3%
March	236	121	283	20%	7%	2%
April	258	58	325	16%	8%	1%
May	249	69	359	12%	6%	4%
June	230	111	321	19%	5%	3%
July	244	119	341	17%	9%	4%
August	252	60	336	16%	6%	2%
September	288	118	355	10%	9%	5%
October	222	108	383	15%	8%	2%
November	228	93	282	14%	9%	4%
December	221	86	268	18%	10%	1%

(4) September

27. By what percentage the net sales for June increased as compared to May in the Footwear category?

- (1) 7.21 percent
- (2) 18.97 percent
- (3) 62.58 percent
- (4) 60.87 percent

28. Which month had highest percentage decline in monthly sales as compared to previous month for the Apparel category?

- (1) October
- (2) June
- (3) March
- (4) December

29. For which categories the value of the products returned (as a percentage of sales) increased for three consecutive months?

- (1) Only Footwear
 - (2) Both Apparel and Footwear
 - (3) Only Apparel
 - (4) Only Electronics
-

30. Among the following four months, for which month the contribution of the Apparel category in the total monthly sales was the highest?

- (1) January
 - (2) April
 - (3) August
 - (4) December
-

Verbal Ability

Comprehension for Q.1 to Q.6

Read the following passage and choose the answer that is closest to each of the questions that are based on the passage.

Meta is recalibrating content on its social media platforms as the political tide has turned in Washington, with Mark Zuckerberg announcing last week that his company plans to fire its US fact-checkers. Fact-checking evolved in response to allegations of misinformation and is being watered down in response to accusations of censorship. Social media does not have solutions to either. Community review — introduced by Elon Musk at X and planned by Zuckerberg for Facebook and Instagram — is not a significant improvement over fact-checking. Having Washington lean on foreign governments over content moderation does not benefit free speech. Yet, that is the nature of the social media beast, designed to amplify bias.

Information and misinformation continue to jostle on social media at the mercy of user discretion. Social media now has enough control over all other forms of media to broaden its reach. It is the connective tissue for mass consumption of entertainment, and alternative platforms are reworking their engagement with social media. Technologies are shaping up to drive this advantage further through synthetic content targeted precisely at its intended audience. Meta's algorithm will now play up politics because it is the flavour of the season.

The Achilles' Heel of social media is informed choice which could turn against misinformation. Its move away from content moderation is driven by the need to be more inclusive, yet unfiltered content can push users away from social media towards legacy forms that have better moderation systems in place. Lawmakers across the world are unlikely to give social media a free run, even if Donald Trump is working on their case. Protections have already been put in place across jurisdictions over misinformation. These may be difficult to dismantle, even if the Republicans pull US-owned social media companies further to the right.

Media consumption is, in essence, evidence-based judgement that mediums must adapt to. Content moderation, not free speech, is the adaptation mechanism. Musk and Zuckerberg are not exempt.

1. The writer's conclusion is that information available on social media is linked to

- (1) the policies of the governments in power.
- (2) the global legal systems' support of free speech.
- (3) the need for deregulation.

- (4) the individual's right to free speech.
-

2. The writer argues that social media

- (1) is in a difficult position because it cannot adapt to new policies.
 - (2) remains unaffected by global debates amongst lawmakers on misinformation.
 - (3) has become the preferred way to access entertainment.
 - (4) flourishes because it can publish any material.
-

3. Technologies are enabling social media to

- (1) accept the current trends as emphasised by algorithms.
 - (2) readjust its interaction with competitors.
 - (3) enlarge its sphere of influence and persuasion.
 - (4) understand that algorithms cannot control its content.
-

4. The writer implies that

- (1) older forms of media will regain users because of their controls.
 - (2) social media can never be discarded by its users.
 - (3) social media's innate strength is the user's inability to fact check.
 - (4) uncensored content will always have more appeal than controlled content.
-

5. The inherent downside associated with social media is that it

- (1) reinforces existing objectivity among the users.
 - (2) creates and spreads much innate and acquired prejudice.
 - (3) does not address the problem of the digital divide.
 - (4) results in unremitting expansion of freedom of expression.
-

6. Social media has succeeded in

- (1) finding alternative means for fact-checking.
- (2) ignoring technology and artificial content.
- (3) becoming independent of other media.

(4) controlling other media that depend on it.

Comprehension for Q.7 to Q.12

Read the following passage and choose the answer that is closest to each of the questions that are based on the passage.

According to the French philosopher Jean Baudrillard, commodities available for consumption are not inherently negative things. Baudrillard tried to interpret consumption in modern societies by engaging with the 'cargo myth' prevalent among the indigenous Melanesian people living in the South Pacific. The Melanesians did not know what aeroplanes were. However, they saw that these winged entities descended from the air for white people and appeared to make them happy. They also noted that aeroplanes never descended for the Melanesian people. The Melanesian natives noted that the white people had placed objects similar to the aeroplane on the ground. They concluded that these objects were attracting the aeroplanes in the air and bringing them to the ground. Through a magical process, the aeroplanes were bringing plenty to the white people and making them happy. The Melanesian people concluded that they would need to place objects that simulated the aeroplane on the ground and attract them from the air. Baudrillard believes that the cargo myth holds an important analogy for the ways in which consumers engage with objects of consumption.

According to Baudrillard, the modern consumer "sets in place a whole array of sham objects, of characteristic signs of happiness, and then waits for happiness to alight". For instance, modern consumers believe that they will get happiness if they buy the latest available version of a mobile phone or automobile. However, consumption does not usually lead to happiness. While consumers should ideally be blaming their heightened expectations for their lack of happiness, they blame the commodity instead.

They feel that they should have waited for the next version of a mobile phone or automobile before buying the one they did. The version they bought is somehow inferior and therefore cannot make them happy. Baudrillard argues that consumers have replaced 'real' happiness with 'signs' of happiness. This results in the endless deferment of the arrival of total happiness. In Baudrillard's words, "in everyday practice, the blessings of consumption are not experienced as resulting from work or from a production process; they are experienced as a miracle". Modern consumers view consumption in the same magical way as the Melanesian people viewed the aeroplanes in the cargo myth. Television commercials also present objects of consumption as miracles. As a result, commodities appear to be distanced from the social processes which lead to their production. In effect, objects of consumption are divorced from the reality which produces them.

7. Why are consumers unhappy with commodities that they have just bought?

- (1) Because television commercials do not create enough hype about commodities.
 - (2) Because they have exaggerated expectations of commodities.
 - (3) Because the Law of Diminishing Marginal Commodities comes into play.
 - (4) Because they focus on improved functionality of commodities.
-

8. Which of the following is an argument made by Baudrillard?

- (1) Production and consumption are magical processes.
 - (2) Consumers value signs more than the real.
 - (3) Melanesian people coped with the inequality of colonialism by creating myths.
 - (4) Television commercials are at the heart of unhappiness experienced by consumers.
-

9. How can consumption be made more satisfying?

- (1) By banning television commercials that promise real happiness.
 - (2) By understanding the connection between production and consumption.
 - (3) By recognising that commodities produce miraculous change.
 - (4) By rejecting colonialism and all other forms of economic oppression.
-

10. How does Baudrillard engage with the cargo myth?

- (1) He uses it to describe the suffering of Indigenous people.
 - (2) He uses it to show that consumers should consume more serious objects.
 - (3) He uses it as a metaphor to critique modern consumption.
 - (4) He uses it to show that consumption is a blessing.
-

11. What is Baudrillard's position on total happiness?

- (1) It comes with patience and waiting.
 - (2) It results from ethical consumption.
 - (3) It prioritises production over consumption.
 - (4) It is perpetually delayed.
-

12. What is Baudrillard's position on consumption?

- (1) It is a positive process.
 - (2) It is an egalitarian process.
 - (3) It is an irrational process.
 - (4) It is a utilitarian process.
-

13. There are so many instances of one or more deer crossing the road, or just standing in the middle of the road, or else -----; it is like the deer cannot hear the noise of the engines or see the headlights.

- (1) jumping under the road
 - (2) staggering with the road
 - (3) foraging beneath the road
 - (4) bounding across the road
-

14. We hope that the government's new policies will ----- a period of economic growth.

- (1) turn up
 - (2) usher in
 - (3) set in
 - (4) set forth
-

15. When she inherited some jewellery from a distant relative, she had no idea of its worth and decided -----.

- (1) to have it appraised
 - (2) to get an approval
 - (3) to get it appreciated
 - (4) to have it apprised
-

16. The labourers who were fired broke into the office building and destroyed some of the machinery. Rather than finding a solution to their problems, they -----.

- (1) extended their troubles
 - (2) exaggerated their hardships
 - (3) exacerbated the situation
 - (4) extenuated the circumstance
-

17. Without a doubt, the widespread use of renewable energy is a key solution to climate change. However, it is not a ----- as efforts in conservation are equally crucial.

- (1) silver lining
 - (2) silver bullet
 - (3) red herring
 - (4) dead ringer
-

18. Everyone wondered how the travel vlogger could go around the world all through the year and -----.

- (1) manage his iterative life style
 - (2) manage his itinerary life style
 - (3) manage his itinerary in his life style
 - (4) manage his itinerant life style
-

19. Deepak is an unpleasant person, but we all ----- because his sister is a close friend of ours.

- (1) put along with him
 - (2) put him aside
 - (3) put up with him
 - (4) put him down
-

20. Although the new policy aims to increase efficiency, reducing costs, and enhancing employment, some employees feel that the changes are too abrupt and poorly communicated.

- (1) increasing efficiency, reducing of costs, and enhancing of employee satisfaction
 - (2) increase efficiency, reduce costs, and enhance employee satisfaction
 - (3) increase the efficiency, reduce the costs and enhancing employee satisfaction
 - (4) increase efficiency, reducing the costs and enhanced employee satisfaction
-

21. Thank goodness, the damage to the car was neglectful.

- (1) was negligible
 - (2) was neglectable
 - (3) was negligent
 - (4) was neglecting
-

22. Among scientists, the discovery of the double helix structure of DNA and the genetic code it incorporates is widely regarded to be one of the most significant scientific discovery of the twentieth century.

- (1) regarded being one of the most significant scientific discoveries
 - (2) regarded like one of the most significant scientific discovery
 - (3) regarded for being one of the most significant scientific discoveries
 - (4) regarded as one of the most significant scientific discoveries
-

23. When I had to leave town due to office work, I had my brother to give food to my dog twice a day.

- (1) had my brother feed my dog
 - (2) had my brother to feed my dog
 - (3) had my brother who fed my dog
 - (4) had my brother giving food to my dog
-

24. If the President knew that his allies would let him down so suddenly, he would have handled them with the greatest care.

- (1) If the President could know beforehand that his allies would let him down
 - (2) Had the President known that his allies would let him down
 - (3) Had the President knowledge that his allies would let him down
 - (4) If the President knew that his allies can let him down
-

25. On the first day of January 2025, the Indian Meteorological Department [IMD] announced that 2024 was the hottest year on record. A study by the Council on Energy, Environment and Water shows that nearly eight out of ten Indians live in districts that are at risk of either a flood, a cyclone, or a drought. Nearly twenty three States in India are heatwave-prone. In the summer of 2024, India recorded more than 44,000 cases of heatstroke and over 300 heat-related mortalities, as per the bulletin of the Ministry of Health and Family Welfare. Water reservoirs and the energy demand that keeps India powered are impacted too. During a ten-day long heatwave in Delhi, peak power demand was 16% higher than the previous year.

- (1) According to the Council, more than 20% of the population is not affected by climate change
- (2) The increasing heat stress remains a major challenge, affecting public health and economic productivity
- (3) However, the people of these districts are given sufficient compensation for loss of life and property

(4) The record-breaking heat of the summer of 2024 resulted in an unpredictable and delayed monsoon

26. As globalization held sway over the world, communities, which used to live in relative isolation, sought access to the wider world, and in the process, they parted with their own language and adopted a new lingua franca. The loss of language, however, does not merely mean the loss of a mode of communication or the loss of a few thousand words. ----- So, when a language dies, a way of thinking dies with it.

- (1) A certain school of thought regrets the demise of local languages but in recent times revival movements have emerged across the world, especially in India
 - (2) Since evolution and change in languages is a part of history, most of the languages spoken today would be scarcely recognizable from what they were a few thousand or maybe even a few hundred years ago
 - (3) A potentially endangered language can sometimes appear to be thriving, or on the other hand, it can show signs of declining
 - (4) Languages exist not only for the purposes of practical communication; they convey a linguistic community's entire mindset and its culture
-

27. An island in Japan boasts of numerous dairy farms that own nearly one million cows, and supplies 70% of the milk sold in the country. These dairy farms have now begun to use cow manure to produce hydrogen. The methane from cow manure mingles with steam in a high temperature environment to produce hydrogen, which is used to electrify the local zoo. -----.

- (1) This shows how Japan has always used technology to help animals
 - (2) The Indian government too, should replicate this, and use such technology to produce hydrogen
 - (3) It is a case study of a certain animal that is useful in providing energy for several other animals
 - (4) This is an exemplary way of creating a sustainable source of energy using innovative technology
-

28. A report published in Lancet Diabetes and Endocrinology has called for an overhaul of our understanding of obesity. An over-reliance on using Body Mass Index [BMI] as a metric has the peculiar effect of leading to both underdiagnosis and overdiagnosis of the condition. ----- BMI does not give accurate information about how fat is distributed in an individual's body. It frequently fails to capture the true state of health of an individual. A person's BMI may indicate

they are "obese", but their organs and bodily functions may be absolutely normal. Every individual is a unique constellation - not only of genes and other biological variables, but also socio-economic conditions and habits.

- (1) BMI reading can help the doctor to accurately prescribe the appropriate dosage to reduce fat
- (2) This is because BMI does not provide a reliable picture of health, nor any direct measure of fat
- (3) Obesity is the end result of multiple factors and BMI can pinpoint the cause of the problem
- (4) Further, much of the information on diabetes, obesity or BMI available on social media is misleading

29. Since chronic stress can _____ the immune system, making individuals more susceptible to illness and _____ their overall well-being, healthcare practitioners often recommend mindfulness practices and proper sleep to _____ these negative effects.

- (1) compromise; impair; counter
- (2) endanger; preserve; decrease
- (3) paralyse; improve; diminish
- (4) undermine; elevate; impede

30. Astronauts who stayed for an _____ period of time at the International Space Station displayed a remarkable level of _____ endurance and mental _____.

- (1) expanded; stern; acuity
- (2) extended; physical; resilience
- (3) explicit; stoic; integrity
- (4) extensive; dysfunctional; agility

31. Psychologists urge users to remember that social media rarely reflects the full complexity of real life. Influencers often _____ a carefully curated on-line persona, which can _____ unrealistic standards and occasionally _____ negative self-comparisons amongst their followers.

- (1) profess; inspire; release
- (2) advocate; perpetuate; stimulate
- (3) endorse; foster; provoke
- (4) maintain; generate; trigger

32. Art can be _____ because it encourages individuals to express their emotions through a creative outlet, allowing them to process complex feelings, reduce stress, and _____ self-awareness.

- (1) acceptable; disturb
- (2) therapeutic; enhance
- (3) pleasing; decrease
- (4) avoidable; mitigate

33. The notion of personhood is _____ on something more than a particular type of genetic material within human beings: it arises only with the larger-scale structural _____ of that material, which permits capacities like _____ thought and moral agency.

- (1) interdependent; division; differentiation
- (2) dependent; disorganisation; deconstruction
- (3) premised; organisation; consciousness
- (4) built; distribution; calibration

34. While Curcumin, which is an _____ found in turmeric helps to reduce _____, extremely high doses of it can _____ headache and nausea.

- (1) alchemy; injury; cause
- (2) ingredient; inflammation; induce
- (3) enzyme; abrasion; infuse
- (4) alkali; infection; promote

Comprehension for Q.35 to Q.40

CONVERSATION ANALYSIS: Read the following transcript and choose the answer that is closest to each of the questions that are based on the transcript.

Lucia Rahilly (Global Editorial Director, The McKinsey Podcast): Today we're talking about the next big arenas of competition, about the industries that will matter most in the global business landscape, which you describe as arenas of competition. What do we mean when we use this term?

Chris Bradley (Director, McKinsey Global Institute): If I go back and look at the top ten companies in 2005, they were in traditional industries such as oil and gas, retail, industrials, and pharmaceuticals. The average company was worth about \$250 billion. If I advance the

clock forward to 2020, nine in ten of those companies have been replaced, and by companies that are eight times bigger than the old guards.

And this new batch of companies comes from these new arenas or competitive sectors. In fact, they're so different that we have a nickname for them. If you're a fan of Harry Potter, it's wizards versus muggles.

Arena industries are wizard-ish; we found that there's a set of industries that play by very different set of economic rules and get very different results, while the rest, the muggles (even though they run the world, finance the world, and energize the world), play by a more traditional set of economic rules.

Lucia Rahilly: Could we put a finer point on what is novel or different about the lens that you applied to determine what's a wizard and what's a muggle?

Chris Bradley: Wizards are defined by growth and dynamism. We looked at where value is flowing and the places where value is moving. And where is the value flowing? What we see is that this set of wizards, which represent about ten percent of industries, hog 45 percent of the growth in market cap. But there's another dimension or axis too, which is dynamism. That is measured by a new metric we've come up with called the "shuffle rate." How much does the bottom move to the top? It turns out that in this set of wizard-ish industries, or arenas, the shuffle rate is much higher than it is in the traditional industry.

Lucia Rahilly: So, where are we seeing the most profit?

Chris Bradley: The economic profit, which is the profit you make minus the cost for the capital you employ is in the wizard industries. It's where R&D happens; they're two times more R&D intensive. They're big stars, the nebulae, where new business is born.

35. In the context of the conversation, "dynamism" most closely refers to

- (1) the never-changing reliance on established and unchanging business practices.
- (2) the stability and predictability of traditional industries.
- (3) the rapid and frequent changes in leadership and market position within an industry.
- (4) the slow, gradual growth and morphing of established companies.

36. In the context of the conversation, the term "arenas of competition" refers to

- (1) government regulations that control business competition.
- (2) broad categories of industries where companies engage in competitive activities.
- (3) physical locations where businesses compete.
- (4) specific companies that are considered to be powerful competitors.

37. "Muggles" refers to industries that

- (1) operate under traditional economic principles.
- (2) are primarily focused on technological innovation.
- (3) are characterized by rapid and frequent changes.

(4) exhibit high levels of market capitalization growth.

38. Which one of the following does "shuffle rate" not measure?

- (1) Volatility of market leadership.
 - (2) Overall profitability of traditional industries.
 - (3) Relative change within an industry.
 - (4) Churn within the arena of competition.
-

39. Which of the following best and correctly summarizes the main idea of the conversation?

- (1) Newer, dynamic industries, termed "wizards," are experiencing significantly greater growth and profit compared to traditional industries.
 - (2) The global economy is shifting back towards traditional industries, as they offer more stable returns.
 - (3) Traditional industries are consistently more profitable than newer, "wizard-ish" industries.
 - (4) The terms "wizard" and "muggle" are used to describe the magical elements of business success.
-

40. "Wizard" industries are characterized by

- (1) a reliance on traditional economic rules and practices.
 - (2) a higher concentration of economic profit and research and development.
 - (3) lower research and development spending.
 - (4) a slower rate of market capitalization growth.
-

41. The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the most logical order and enter the sequence of numbers in the space provided.

1. In drought conditions, water often depletes in the topsoil and remains accessible only in the deeper subsoil layers.
2. A new study gives new insights into how the acid changes root growth angles to enable plants to reach out deeper subsoils in search of water.
3. Plants rely on their root systems, the primary organs for interacting with soil, to actively seek water.

4. Abscisic acid plays an important role in helping plants adapt to these challenging conditions.
-

42. The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the most logical order and enter the sequence of numbers in the space provided.

1. Among its major urban centres, Harappa and Mohenjo-Daro stand out as prime examples of this architectural prowess, revealing large public structures, residential areas, and sophisticated water management systems indicative of a complex societal structure.
 2. Showing remarkable sophistication for its time, this ancient culture developed meticulously planned cities, complete with advanced sanitation systems and intricate grid layouts that underscore their profound understanding of urban design and engineering.
 3. Economically, the civilization thrived on a foundation of extensive trade networks, connecting them with distant lands, alongside a robust agricultural system that sustained their large populations and facilitated surplus production.
 4. Despite its impressive achievements and longevity, the reasons behind the eventual decline of this remarkable civilization remain largely enigmatic, prompting ongoing research and speculation among historians and archaeologists.
 5. The Indus Valley Civilization, flourishing in the Bronze Age, represents one of humanity's earliest urban societies, evidenced by archaeological discoveries dating back thousands of years.
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43. The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the most logical order and enter the sequence of numbers in the space provided.

1. Seven of the ten worst affected countries (including India) are low- and middle-income countries.
2. Between 1993 and 2022, India was the sixth worst-affected country in terms of fatalities and damage sustained from extreme weather events wrought by the climate crisis.
3. High income nations, whose economies are founded in industrial era use of fossil fuels, meanwhile, insist that growing economies, especially India and China, shoulder greater responsibility.
4. This reinforces the developing world's contention that it has had to bear a disproportionate burden of climate afflictions despite having contributed little to the crisis.

44. The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the most logical order and enter the sequence of numbers in the space provided.

1. Using the wonders of Artificial Intelligence (AI), they quickly improved upon those skills to become far more dexterous.
2. Inside a robotics laboratory of the Toyota Research Institute, a group of robots is busy cooking. There is nothing special about that; robotic chefs have been around for a while.
3. Despite their extraordinary culinary capabilities, these robots are not destined for a career in catering.
4. But these robots are more proficient than most: flipping pancakes, slicing vegetables, and making pizzas with ease.
5. The difference is that instead of being laboriously programmed to carry out their tasks, the Toyota robots have been taught only a basic set of skills.

45. The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the most logical order and enter the sequence of numbers in the space provided.

1. When we take time to notice these moments, we discover hidden beauty that sparks our creative thoughts because creativity isn't just about rare, amazing events—it's also about finding the special in the ordinary.
 2. Creativity is often seen as the ability to look at the world in a new way—to turn everyday sights, sounds, and experiences into art or ideas.
 3. In fact, inspiration can come from small details of daily life: the gentle warmth of morning sunlight on a kitchen counter, the steady sound of traffic outside, or the brief smile of a stranger on a busy street.
 4. Many people wrongly think that true creativity only comes from big ideas or exciting adventures.
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