

# IPM Indore 2023

## Quantitative Ability SA

1. If  $f(1) = 1$  and  $f(n) = 3n - f(n - 1)$  for all integers  $n > 1$ , then the value of  $f(2023)$  is \_\_\_\_\_

2. Amisha can complete a particular task in twenty days. After working for four days she fell sick for four days and resumed the work on the ninth day but with half of her original work rate. She completed the task in another twelve days with the help of a co-worker who joined her from the ninth day. The number of days required for the co-worker to complete the task alone would be \_\_\_\_\_.

3. If  $f(n) = 1 + 2 + 3 + \dots + (n+1)$  and  $\sum_{k=1}^{k=n} \frac{1}{f(k)}$  then the least value of  $n$  for which  $g(n)$  exceeds the value  $\frac{99}{100}$  is \_\_\_\_\_.

4. In an election with only two contesting candidates, 15% of the voters did not turn up to vote, and 50 voters cast invalid votes. It is known that 44% of all the voters in the voting list voted for the winner. If the winner got 200 votes more than the other candidate, then the number of voters in the voting list is \_\_\_\_\_.

5. The total number of positive integer solutions of  $21 \leq a+b+c \leq 25$  is \_\_\_\_\_.

6. If three consecutive coefficients in the expansion of  $(x+y)^n$  are in the ratio 1 : 9 : 63, then the value of  $n$  is \_\_\_\_\_.

7. The polynomial  $4x^{10} - x^9 + 3x^8 - 5x^7 + 6x^6 + 2x^5 - x^4 + x^3 - 4x^2 + 6x - 2$  when divided by  $x - 1$  leaves a remainder 2. Then the value of  $c + 6$  is \_\_\_\_\_.

8. The product of the roots of the equation  $\log_2 (\log_2 x)^2 - 5 \log_2 x + 6 = 0$  is \_\_\_\_\_

9. The remainder when  $1! + 2! + 3! + \dots + 95!$  is divided by 15 is \_\_\_\_\_.

10. Vinita drives a car which has four gears. The speed of the car in the fourth gear is  $v$  times its speed in the first gear. The car takes twice the time to travel a certain distance in the second gear as compared to the third gear. In a 100 km journey, if Vinita travels equal distances in each of the gears, she takes 585 minutes to complete the journey. Instead, if the distances covered in the first, second, third, and fourth gears are 4 km, 4 km, 32 km, and 60 km, respectively, then the total time taken, in minutes, to complete the journey, will be \_\_\_\_\_.

11. Let  $a, b, c, d$  be positive integers such that  $a + b + c + d = 2023$ . If  $a : b = 2 : 5$  and  $c : d = 5 : 2$  then the maximum possible value of  $a + c$  is \_\_\_\_\_.

12. In the xy-plane let A = (-2,0), B = (2,0). Define the set S as the collection of all points C on the circle  $x^2 + y^2 = 4$  such that the area of the triangle ABC is an integer. The number of points in the set S is \_\_\_\_\_

13. The length of the line segment joining the two intersection points of the curves  $y = \sqrt{4-x^2}$  and  $x^2 = y^2$  is \_\_\_\_\_.

14. Assume it is the beginning of the year today. Ankita will earn INR 10,000 at the end of the year, which she plans to invest in a bank deposit immediately at a fixed simple interest of 0.5% per annum. Her yearly income will increase by INR 10,000 every year, and the fixed simple interest offered by the bank on new deposits will also increase by 0.5% per annum every year. If Ankita continues to invest all her yearly income in new bank deposits at the end of each year, the total interest earned by her, in INR, in five years from today will be \_\_\_\_\_.

15. In a chess tournament, there are four groups, each containing an equal number of players. Each player plays

- against every other player belonging to one's own group exactly once;
- against each player belonging to one of the remaining three groups exactly twice;
- against each player belonging to one of the remaining two groups exactly three times; and
- against each player belonging to the remaining group exactly four times.

If there are more than 1000 matches being played in the tournament, the minimum possible number of players in each group is \_\_\_\_\_.

## Quantitative Ability MCQ

16. If  $\log_{\cos x}(\sin x) \times \log_{\sin x}(\cos x) = 2$ , then the value of x is

- A  $2n\pi + \frac{\pi}{4}$ , n is an integer
- B  $n\pi + \frac{\pi}{4}$ , n is an integer
- C  $\frac{n\pi}{4} + \frac{\pi}{4}$ , n is an integer
- D  $n\pi$ , n is an integer

17. A person standing at the center of an open ground first walks 32 meters towards the east, takes a right turn and walks 16 meters, takes another right turn and walks 8 meters, and so on. How far will the person be from the original starting point after an infinite number of such walks in this pattern?

- A  $32\sqrt{5}$  meters
- B  $64\sqrt{5}$  meters
- C 32 meters
- D 64 meters

18. The equation  $x^2 + y^2 - 2x - 4y + 5 = 0$  represents

- A an ellipse
- B a circle
- C a point
- D a pair of straight lines

19. A goldsmith bought a large solid golden ball at INR 1,000,000 and melted it to make a certain number of solid spherical beads such that the radius of each bead was one-fifth of the radius of the original ball. Assume that the cost of making golden beads is negligible. If the goldsmith sold all the beads at 20% discount on the listed price and made a total profit of 20%, then the listed price of each golden bead, in INR, was

- A 12000
- B 24000
- C 9600
- D 48000

20. A helicopter flies along the sides of a square field of side length 100 kms. The first side is covered at a speed of 100 kmph, and for each subsequent side the speed is increased by 100 kmph till it covers all the sides. The average speed of the helicopter is

- A 250 kmph
- B 200 kmph
- C 192 kmph
- D 184 kmph

21. The probability that a randomly chosen positive divisor of 102023 is an integer multiple of 102001 is

- A  $\frac{22}{2023}$
- B  $\frac{23}{2024}$
- C  $\frac{222}{20232}$
- D  $\frac{232}{20242}$

22. In a triangle ABC, let D be the mid-point of BC, and AM be the altitude on BC. If the lengths of AB, BC and CA are in the ratio of 2:4:3, then the ratio of the lengths of BM and AD would be

- A  $11:4\sqrt{10}$
- B 11 : 12
- C 12 : 11
- D  $4\sqrt{10} : 11$

23. If  $A = \begin{bmatrix} 1 & 2 \\ 3 & a \end{bmatrix}$  where  $a$  is a real number and  $\det(A^{-2}3A - 5A) = 0$  then one of the values of  $a$  can be

- A 5
- B 4
- C 6
- D 1

24. Which of the following straight lines are both tangent to the circle  $x^2+y^2-6x+4y-12=0$

- A  $4x + 3y - 19 = 0, 4x + 3y + 31 = 0.$
- B  $4x + 3y + 19 = 0, 4x + 3y - 31 = 0.$
- C  $4x + 3y + 19 = 0, 4x + 3y + 31 = 0.$
- D  $4x + 3y - 19 = 0, 4x + 3y - 31 = 0.$

25. Let  $a_1, a_2, a_3$  be three distinct real numbers in geometric progression. If the equations  $a_1 x^2 + 2a_2 x + a_3 = 0$  and  $b_1 x^2 + 2b_2 x + b_3 = 0$  has a common root, then which of the following is necessarily true?

- A  $b_1, b_2, b_3$  are in arithmetic progression
- B  $\frac{b_1}{a_1}, \frac{b_2}{a_2}, \frac{b_3}{a_3}$  are in arithmetic progression
- C  $b_1, b_2, b_3$  are in geometric progression
- D  $\frac{b_1}{a_1}, \frac{b_2}{a_2}, \frac{b_3}{a_3}$  are in geometric progression

26. A rabbit is sitting at the base of a staircase which has 10 steps. It proceeds to the top of the staircase by climbing either one step at a time or two steps at a time. The number of ways it can reach the top is

- A 34
- B 55
- C 144
- D 89

27. The minimum number of times a fair coin must be tossed so that the probability of getting at least one head exceeds 0.8 is

- A 6
- B 5
- C 7
- D 3

28. Consider an  $8 \times 8$  chessboard. The number of ways 8 rooks can be placed on the board such that rooks are in the same row and no two are in the same column is

- A  $7!$
- B 8

C 8!

D 7

29. Let  $a, b, c$  be real numbers greater than 1, and  $n$  be a positive real number not equal to 1. If  $\log_2 a = 1, \log_2 b = 2$  and  $\log_2 c = 3$ , then which of the following is true?

A  $a + b = c$

B  $(an + b)n = ac$

C  $(b - a)n = (c - b)$

D  $an + bn = cn$

30. If the difference between compound interest and simple interest for a certain amount of money invested for 3 years at an annual interest rate of 10% is INR 527, then the amount invested in INR is

A 15000

B 170000

C 17000

D 150000

31. If the harmonic mean of the roots of the equation  $(\sqrt{5}x + 8 + 2\sqrt{5})x + 8 + 2\sqrt{5} = 0$  is 4 then the value of  $b$  is

A  $4 - \sqrt{5}$

B 2

C 3

D  $4 + \sqrt{5}$

32. Let  $[x]$  denote the greatest integer not exceeding  $x$  and  $\{x\} = x - [x]$ .

If  $n$  is a natural number, then the sum of all values of  $x$  satisfying the equation  $2[x] = x + n\{x\}$  is

A  $\frac{n(n+1)}{2}$

B  $n$

C  $\frac{n(n+2)}{2}$

D  $\frac{3}{2}$

33. If  $\frac{a+b}{b+c} = \frac{c+d}{d+a}$ , which of the following statements is always true?

A  $a + b + c + d = 0$

B  $a = c$

C  $a = c$ , or  $a + b + c + d = 0$

D  $a = c$ , and  $b = d$

34. The set of all real values of  $x$  satisfying the inequality  $\frac{x^2(x+1)}{(x-1)(2x+1)} > 0$  is
- A**  $(-1, -\frac{1}{2}) \cup (1, +\infty)$
- B**  $(-1, 0) \cup (1, +\infty)$
- C**  $(-\infty, -1) \cup (-\frac{1}{2}, 0) \cup (1, +\infty)$
- D**  $(-1, -\frac{1}{2}) \cup (0, +\infty)$
35. In a chess tournament there are 5 contestants. Each player plays against all the others exactly once. No game results in a draw. The winner in a game gets one point and the loser gets zero point. Which of the following sequences cannot represent the scores of the five players?
- A** 3, 3, 2, 1, 1
- B** 2, 2, 2, 2, 2
- C** 4, 4, 1, 1, 0
- D** 3, 2, 2, 2, 1
36. If  $\cos\alpha + \cos\beta = 1$ , then the maximum value of  $\sin\alpha - \sin\beta$  is
- A** 2
- B**  $\sqrt{2}$
- C** 1
- D**  $\sqrt{3}$
37. A polynomial  $P(x)$  leaves a remainder 2 when divided by  $(x - 1)$  and a remainder 1 when divided by  $(x - 2)$ . The remainder when  $P(x)$  is divided by  $(x - 1)(x - 2)$  is
- A**  $3 - x$
- B**  $x - 3$
- C** 3
- D** 2
38. In a group of 120 students, 80 students are from the Science stream and the rest are from the Commerce stream. It is known that 70 students support Mumbai Indians in the Indian Premier League; all the other students support Chennai Super Kings. The number of Science students who are supporters of Mumbai Indians is
- A** 30 or more
- B** Exactly 20
- C** Between 20 and 25
- D** Between 15 and 25
39. Let  $p$  be a positive integer such that the unit digit of  $p^3$  is 4. What are the possible unit digits of  $(p^2)^3$ ?

- A 1, 3
- B 1, 7, 9
- C 1, 3, 7
- D 4, 7

40. If a three-digit number is chosen at random, what is the probability that it is divisible neither by 3 nor by 4?

- A  $\frac{1}{3}$
- B  $\frac{2}{3}$
- C  $\frac{1}{4}$
- D  $\frac{1}{4}$

**Instructions [41 - 45]**

A pharmaceutical company has tested 5 drugs on three different organisms. The following incomplete table reports if a drug works on the given organism. For example, drug A works on organism R while B and C work on Q.

		Organism		
		P	Q	R
Drug	A			✓
	B		✓	
	C		✓	
	D			
	E			

Following additional information is available:

- Each drug works on at least one organism but not more than two organisms.
- Each organism can be treated with at least two and at most three of these 5 drugs.
- On whichever organism A works, B also works. Similarly, on whichever organism C works, D also works.
- D and E do not work on the same organism.

41. Drug D works on

- A Only Q
- B Q and R
- C Only P
- D P and Q

42. Organism P can be treated with

- A A, B, and D
- B Only B and D
- C B, C and D
- D Only C and D

43. Organism R can be treated with

- A A, B and C
- B A, B and E
- C Only A and B
- D Only A and E

44. Drug E works on

- A Only R
- B Only P
- C Q and R
- D P and R

45. The organism(s) that can be treated with three of these ve drugs is(are)

- A P and Q
- B Only Q
- C Only P
- D Q and R

## Verbal Ability

### Instructions [46 - 51 ]

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

The general idea of being fit is usually assumed to be exercising regularly and having a healthy diet. It's true to some extent. But this is not always the case. People don't realise that sleep also plays a crucial part when it comes to physical and mental well-being. It's a restorative process, which shouldn't be negotiable.

Hectic working hours, increasing stress levels, and an unhealthy lifestyle can cause irregular sleep patterns. These not only disturb one's daily routine, but can also hamper one's health, leading to lifestyle conditions like deranged cholesterol and diabetes. It's a preconceived notion that cholesterol and diabetes are usually genetic diseases, and unhealthy eating patterns and lifestyle exacerbate them. It is not generally known that sleep deprivation can put a person at risk of both deranged cholesterol and diabetes.

Sleep helps your body and mind repair and recharge themselves. But things can go awry if one is sleep-deprived. Insomnia can generally make the body work abnormally. It affects the mental and physical abilities to prepare the body for the next day. It leaves the brain exhausted, affecting the natural functioning of the body.

Lack of sleep can lead to higher cholesterol and blood pressure. Sleep deprivation can lower levels of leptin, a hormone that stabilises metabolism and appetite. This can also lead to obesity, if left unchecked. Sleep deprivation has been found to raise levels of ghrelin, the hunger hormone, and decrease levels of leptin, the satiety hormone. That's why people seek relief in foods that raise blood sugar. The American Academy of Sleep Medicine recommends that adults should get a minimum of seven to eight hours of sleep each night. Staying up late can lead to consuming unhealthy snacks and junk food high in carbs and sugar. All this increases the risk of Type 2 diabetes and is equally connected to obesity.

Just like any other routine, having a definite sleeping pattern can help a person maintain a cycle of rest and activity. Sleeping at the same time every day and waking up on time will encourage quality sleep. Proper relaxation of body and mind before sleeping means that one should keep the mobile phone aside for at least

half an hour before bed. It helps if the room is dark and quiet. Plus, one can always read a good book or listen to soothing music which can lull one into deep sleep.

46. The objective of the passage is to

- A present psychological insights to the reader.
- B expose the reader to disinformation.
- C advise the reader.
- D provide medical input to the reader.

47. As per the passage which of these sentences is not correct?

- A Insufficient sleep can lead to obesity.
- B Regular exercising and eating healthy food alone ensure fitness.
- C One's body and mind should be properly relaxed to ensure good sleep.
- D Irregular sleep patterns can result in health problems.

48. Being deprived of sleep can result in

- A metabolism loss.
- B terminal illness.
- C hunger satiation.
- D mental exhaustion.

49. The main focus of the passage is on the

- A stability of leptin and ghrelin in the human body.
- B ill effects of junk food high in carbs and sugars.
- C dangers of high levels of cholesterol and diabetes.
- D perils of insomnia and irregular sleep patterns.

50. In order to remain physically fit one must

- A read a good book every night.
- B snack frequently.
- C raise levels of ghrelin.
- D maintain a set sleep pattern.

51. In what way does sleep contribute to a person's well-being?

- A By increasing a person's appetite.
- B By helping the body replenish its resources.
- C By regularising a person's daily routine.

**D** By adding power and strength to the muscles.

**Instructions [52 - 57]**

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

Two Apple stores in Delhi and in Mumbai - opened in April 2023. Until now, Indians could buy Apple products in the country either online or through a vast network of what the company calls 'premium resellers'. Will the new-found ability to sell products directly to customers in India - the world's second largest smartphone market - impact its fortunes here? Apple has long tried to open physical retail stores in India. In 2019, the Indian government relaxed some investment rules, exempting companies selling 'cutting-edge' items, such as Apple's iPhones and iPads, from restrictions.

Apple first launched an online store in India through a website which allows users to request for customised products. Apple's decision to open physical stores in India could be the next step in its branding strategy. It is not as if this will change Apple's sales in any dramatic way, but it is still a key milestone, one that will allow Apple to deliver to Indian customers the full Apple experience. The iPhone is still an aspirational product in the price-sensitive Indian market. When you launch an Apple store, you are basically giving a premium experience to your premium consumers. It might not pull up sales, but it pulls more people into the Apple ecosystem. Setting up an Apple store in India is also a statement that the country is now big enough for Apple to be actually interested in expanding operations here, and comes at a time when India is rising fast as a manufacturing base for the iPhone. Apple first began making a lower-end model of the iPhone in India in 2017. Last year, it began producing its latest model of iPhone 14 in the country, which now accounts for 5 percent of total iPhone production.

For years, Apple had relied on China's sophisticated manufacturing network to produce the bulk of its products. But analysts predict that by 2025, a quarter of all iPhones the company makes could be produced in India. Apple was already making between 5-7 percent of its products in India, and they are targeting to go up to 25 percent of their manufacturing capacity.

In 2022, Apple had a 60 percent market share in the Indian 'premium smartphone' market - which refers to mobiles that cost INR 40,000 or more, ahead of Samsung's 21 percent share. Apple is doing well across categories. The real issue will be to pull consumers to these flagship centres without alienating the partner sellers.

Apple has finally understood that India's premium market is growing, so why not be serious about it.

**52.** Based on the passage which one of the following is not true?

- A** iPhone 14 is being manufactured in India.
- B** Regulatory restrictions were eased in 2023.
- C** Currently 5 to 7 percent of all iPhones are manufactured in India.
- D** Manufacturing of iPhones in India commenced in 2017.

**53.** Apple's challenge while opening physical stores is to

- A** subtly alienate customers away from competitors.
- B** provide stimulation that draws customers away from other sellers.
- C** offer parallel products packaged more attractively.
- D** retain links with their partner sellers while drawing customers to their stores.

**54.** India is now the focus of Apple operations because

- A** no other country has the same ease of doing business.

- B** it has the world's second largest population.
- C** it offers the benefit of a manufacturing base in addition to a market.
- D** American technology companies want to reduce their reliance on China.

55. "Apple's aim is not only to increase sales of its iPhones, but to draw people into Apple's ecosystem." In the context of the passage, this statement means that Apple seeks to

- A** attract customers to buy its phones through innovative means.
- B** bring customers into a network of related products which it offers.
- C** be the market leader in the world of premium smartphones.
- D** attract customers by displaying a wide range of aesthetically designed products.

56. The main point the passage makes is that Apple

- A** has realised the strategic importance of the Indian market.
- B** needs physical stores to expand sales to more buyers of premium products.
- C** iPhone was already popular in India.
- D** needs new branding and marketing strategies to compete with Samsung.

57. The Apple retail stores in India will

- A** drive healthy competition in the smartphone market.
- B** not have any impact on Apple's image.
- C** bring in more customers and increase sales.
- D** not materially impact sales of iPhones.

58. The nasty comments made by strangers on the social media platforms about the actor made him \_\_\_\_\_

- A** ill at ease
- B** ill at heart
- C** ill and ache
- D** ill in heart

59. It grieved me \_\_\_\_\_ my friend's serious illness.

- A** in hearing
- B** to hear regarding
- C** hearing regarding
- D** to hear of

60. Meena is very arrogant and class-conscious; she refuses to acknowledge Sunil because she feels he is a man \_\_\_\_\_.
- A of great importance
  - B of no importance
  - C of some importance
  - D of less importance
61. A few brands tailor their pants in such a way that it is easy for people with prosthetic legs to put them on. This is how they \_\_\_\_\_.
- A go the extra mile
  - B go to the extra level
  - C go to the extreme level
  - D go the entire mile
62. Some big shots know how to escape the law even after they violate it. It is, however, the \_\_\_\_\_ who are more often apprehended and punished.
- A small fry
  - B tiny shots
  - C small sh
  - D tiny sh
63. If you ask me to give you a rough estimate for the cost of the project, \_\_\_\_\_ I would say thirty lakhs.
- A off-the-cuff
  - B off-the-mark
  - C off-the-mike
  - D off-the-grid
64. The new car has disappointed its buyers in many ways, and good mileage is its only \_\_\_\_\_.
- A saving grace
  - B saving face
  - C saving praise
  - D saving case
65. When you play the 'Secret Santa', you are expected to buy a gift for **whoever you are assigned**, without letting them know that you are the one buying the gift.
- A whom you are assigned
  - B whomever you are assigned

C who you are assigned

D whoever you are assigned.

66. My aunt Seema was the most generous of all the members of our family. Whenever we went out for dinner, she always insisted **to pay for the meal.**

A that she had paid for the meal.

B that she pay for the meal.

C on and paid for the meal.

D that she will be paying for the meal.

67. Justin couldn't understand why his friend had refused to work in a company that offered him a huge salary. If it had been him in his friend's place, he would **de nitely accepted such an offer.**

A have de nitely have accepted such an offer.

B have de nitely accepted such an offer.

C have de nitely accept such an offer.

D de nitely accepted such an offer.

68. The setting of a story **effects the story's plot.**

A affect the story's plot.

B effects the stories' plot.

C affects the story plots.

D affects the story's plot.

69. Listening to the recording of cricket commentary from the past can be great fun. Especially, the last few overs, when the best players are gone, and the tailenders try their best to run between the wickets without getting out. This is when you realise that **nothing much has changed, hasn't it?**

A nothing much has changed, has it?

B nothing much has changed, would it?

C nothing much has changed, hasn't it?

D nothing much is changed, isn't it?

70. \_\_\_\_\_ . Conflicts are now brewing over rivers and river basins shared by many countries around the world. This is not unexpected, given the fact that more than two hundred water bodies are shared by two or more countries. Strife over water, for example, is erupting throughout the Middle East, from the watersheds of the Nile to the Tigris and Euphrates Rivers.

A The world does not consider water to be the scarce resource it is

B It might be a cliché, but given how scarce it is, water is the new oil of the 21st century

- C** With water becoming increasingly scarce and development of new sources of water extremely costly, international water tensions are expected to rise
- D** Fresh water is increasingly in short supply, with nearly two-thirds of the global population living in water-stressed conditions

**71.** The concept of the 'Villa' and other European ideas came to Lucknow with foreign soldiers, travellers and adventurers. For the Nawabs of Lucknow, architecture became the physical manifestation of their new status, and a way of proclaiming their alignment to the new power bloc. \_\_\_\_\_. Villas, hence, provided an ideal substitute. Europe sold to the Nawabs the idea of villas, based on designs in publications carried by them, and often aided by memory. The building chosen as the prototype for the famous Dilkusha Kothi was a country house in Northumberland.

- A** The Villa became the backdrop to both the private as well as the court life of the Nawabs
- B** The Nawabs chose to live in Villas because they were easier to construct than palaces
- C** The Nawabs were attracted to European ideas in architecture because of their 'foreignness'
- D** The Nawabs of Lucknow fancied building palaces that resembled British ancestral homes

**72.** A study of the social and cultural context of Indian poetry in English reveals several important insights into its origin. Indian poetry in English began in Bengal, the province where the British first gained a stronghold. In addition, this poetry was a largely urban phenomenon, centered in Calcutta. \_\_\_\_\_. Then, gradually, it moved to other urban centres such as Madras and Bombay. Even today, Indian poetry in English remains largely urban. Moreover, because English was an elite language, Indian poets writing in English came from the upper classes.

- A** The British had decided that poetry about India could reach a larger audience if written in Calcutta
- B** In fact, poetry writing for the first fifty years was confined to a few families who were residents of Calcutta
- C** English was seen as an elite language and so the British felt that only they could use it for poetry
- D** The rulers encouraged the natives to write poetry about India only if their mother tongue was English

**73.** In the late 1960s, architect Charles Correa began his career as an urban planner, creating New Bombay (now Navi Mumbai), an urban area that provided housing and job opportunities for many who lived across the harbour from the original city. In the midst of overpopulated cities, he tried to create quasi-rural housing environments. In all of his urban planning commissions, Correa avoided high-rise housing solutions.

- A** Considerations of the Indian climate drove many of his decisions
- B** He focused on low-rise dwelling solutions that emphasized the human scale and created a sense of community
- C** He is particularly noted for his sensitivity to the needs of the urban poor
- D** His early work combined traditional architectural values with the Modernist use of materials

**74.** The human resource chief said that the company will not \_\_\_\_\_ on investing in people and has \_\_\_\_\_ spending on employee needs in order to \_\_\_\_\_ them and provide them with a sense of stability and certainty.

- A** debate; assured; confront

- B prioritise; compromised; include
- C compromise; prioritised; reassure
- D delay; assured; empower

75. In the alleyways of old Cairo, in its cafes, warehouses and barbershops, framed portraits of Egyptian icons are \_\_\_\_\_. Kings, presidents, religious and political figures are all \_\_\_\_\_ on fading walls, held up as symbols of a glorious past.

- A fashionable; confounded
- B ubiquitous; immortalised
- C rare; abundant
- D substantial; dispersed

76. In its early stages, dementia is often \_\_\_\_\_ from normal ageing, in which the older brain may naturally begin to show signs of cognitive impairment. Neither dementia nor cognitive ageing is currently \_\_\_\_\_, though they may be slowed through diet, exercise, and keeping the mind agile with social and intellectual activity.

- A distinguishable; permanent
- B indistinguishable; reversible
- C differentiated; visible
- D irreversible; manageable

77. The culture of the 21st century - on an increasingly \_\_\_\_\_ scale - is oriented around the practical principles of utility, effectiveness, and impact. Things are good to the extent that they are instrumental, with instrumentality usually defined as the capacity to produce money or things. The worth of anything - an idea, an activity, an artwork, a with another person - is determined \_\_\_\_\_.

- A ordinal; conversation; imaginatively
- B nominal; dinner; meaningfully
- C conspicuous; dialogue; diligently
- D global; relationship; pragmatically

78. \_\_\_\_\_ have to label their \_\_\_\_\_ posts in order to bring about transparency and \_\_\_\_\_ the interests of the customers.

- A Influencers; promotional; safeguard
- B Promoters; social media; incite
- C Advertisers; commercials; capture
- D Distributors; Facebook; multiply

79. Working from home requires that you may have to put your \_\_\_\_\_ life on \_\_\_\_\_. Some people find this very \_\_\_\_\_ as they like to keep their work and home lives separate.

- A family; microscope; disturbing
- B actual; video; uncomfortable
- C entire; camera; complicated
- D private; screen; disconcerting

80. One of the statements below contains a word used incorrectly or inappropriately. Choose the option which has the incorrect or inappropriate usage of the word.

- A Teenagers may feel a need to cut the umbilical cord tying them to their homes.
- B The musician would hear a cord in his head and play each note individually.
- C He purchased a cord of wood from the market.
- D To keep the key safe, she wore it on a cord around her neck.

81. One of the statements below contains a word used incorrectly or inappropriately. Choose the option which has the incorrect or inappropriate usage of the word.

- A It was a full moon night and the tide was high, but he went boating and, unfortunately, he drowned.
- B I have a good chance of a promotion since my firm has recently tied up with a global conglomerate.
- C After many years of knowing one another, they eventually tied the knot.
- D The bags placed on the carrier were not securely tied, which led to an unfortunate accident.

82. One of the statements below contains a word used incorrectly or inappropriately. Choose the option which has the incorrect or inappropriate usage of the word.

- A The witch waved her wand, recited a magical verse, pressed the blue stone on her ring and vanished into thin air.
- B She had left home for the first time, so her parents made her promise that she would ring them up every day.
- C They were all soaking wet and their mother told them to ring their clothes first and then put them out to dry.
- D To catch the terrorist the security forces formed a ring around the house where he was hiding.

83. One of the statements below contains a word used incorrectly or inappropriately. Choose the option which has the incorrect or inappropriate usage of the word.

- A The pet dog could not come to terms with his master's death and went to grave for him, even refusing to eat for several days.
- B When the witness was summoned by the lawyer, he made grave allegations against the accused.
- C They found that all the flowers placed on their mother's grave had withered within a week.
- D The landlord issued a warning to the tenants that non-payment of rent was a grave matter and would lead to a court case.

84. One of the statements below contains a word used incorrectly or inappropriately. Choose the option which has the incorrect or inappropriate usage of the word.

- A I live farther away from college than all my classmates.
- B The politician was soustered by the animosity of the crowd that he refused to answer further question.
- C If you need to farther your career, you should avoid all kinds of distractions.
- D We need to discuss this problem right away and avoid letting it fester any further.

85. One of the statements below contains a word used incorrectly or inappropriately. Choose the option which has the incorrect or inappropriate usage of the word.

- A The passengers in the bus were sweating profusely because of the hot climatic conditions.
- B Under certain climatic conditions, hailstorms are formed in the atmosphere, resulting in unexpected accidents.
- C Our products have to function in extreme weather conditions, which is why we put them through climatic testing.
- D The climatic moment of the match was when the captain got caught behind the wicket.

86. 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. Only numbers are to be entered in the space provided for the answer, and no letters, characters, or spaces should be entered. For example, a response such as 3412 is valid, and responses such as 3412. or 3 41 2 are invalid.

1. Yet, even as TikTok delights consumers and advertisers, others believe the sunny app has a dark side.
2. Since launching just ve years ago, the app has brought a warm glow to its 1 billion plus users, as well as an icy dash of competition to the social media incumbents of Silicon Valley.
3. ByteDance, its owner, has its headquarters in China, whose government is addicted to surveillance and propaganda- making it a worrying place for a media app to be placed.
4. With its wholesome dancing and lip-syncing videos, TikTok once billed itself as the "last sunny corner on the Internet."

- A 4213
- B 1342
- C 4123
- D 1243

87. 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. Only numbers are to be entered in the space provided for the answer, and no letters, characters, or spaces should be entered. For example, a response such as 3412 is valid, and responses such as 3412. or 3 41 2 are invalid.

1. Once they reach a high altitude, they manage to travel all over the world.
2. An expert from the team explained that the bacteria usually lived on the surface of vegetation, such as leaves.
3. The wind carries them off the surface and into the atmosphere.
4. A group of researchers were surprised to nd that clouds had carried drug resistant bacteria over a long distance.

- A 1324

**B** 3214

**C** 4231

**D** 1423

**88.** 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. Only numbers are to be entered in the space provided for the answer, and no letters, characters, or spaces should be entered. For example, a response such as 3412 is valid, and responses such as 3412. or 3 41 2 are invalid.

1. This instance highlights how young people from different backgrounds can make important contributions to climate change.
2. Participation in environmental education programmes can motivate children to act responsibly towards the environment.
3. They were motivated to act in ways that would help the environment, like using a reusable water bottle or refusing to use plastic straws.
4. Six hundred elementary school children from varied social and linguistic groups participated in an ocean pollution education programme.

**A** 4231

**B** 2431

**C** 1423

**D** 4132

**89.** 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. Only numbers are to be entered in the space provided for the answer, and no letters, characters, or spaces should be entered. For example, a response such as 3412 is valid, and responses such as 3412. or 3 41 2 are invalid.

1. But the mutiny of Visakhapatnam predates this.
2. Instead of going against their heroic leader, the sepoys attacked the British soldiers and managed to escape from the town.
3. The Sepoy Mutiny of 1857 in the garrison town of Meerut is regarded as the First War of Independence.
4. It happened in 1780 when the British officers asked the local sepoys to join the fight against Hyder Ali.

**A** 2413

**B** 1243

**C** 2314

**D** 3142

**90.** 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. Only numbers are to be entered in the space provided for the answer, and no letters, characters, or spaces should be entered. For example, a response such as 3412 is valid, and responses such as 3412. or 3 41 2 are invalid.

1. What is more shocking to observe is how often such strokes lead to death.
2. When the body temperature rises, our vital organs swell, and this causes death.
3. One main reason for this is that people underestimate how badly heat can affect the body.
4. Heat strokes have become more common in our country than ever before.

**A** 2134

**B** 4132

**C** 3214

**D** 3124

# Answers

## Quantitative Ability SA

<b>1.3034</b>	<b>2.24</b>	<b>3.199</b>	<b>4.5000</b>	<b>5.1160</b>	<b>6.39</b>	<b>7.5</b>	<b>8.32</b>
<b>9.3</b>	<b>10.312</b>	<b>11.1442</b>	<b>12.14</b>	<b>13.140</b>	<b>14.2500</b>	<b>15.8</b>	

## Quantitative Ability MCQ

<b>16.A</b>	<b>17.B</b>	<b>18.C</b>	<b>19.A</b>	<b>20.C</b>	<b>21.D</b>	<b>22.A</b>	<b>23.C</b>
<b>24.B</b>	<b>25.B</b>	<b>26.D</b>	<b>27.D</b>	<b>28.C</b>	<b>29.B</b>	<b>30.C</b>	<b>31.D</b>
<b>32.C</b>	<b>33.D</b>	<b>34.A</b>	<b>35.C</b>	<b>36.D</b>	<b>37.A</b>	<b>38.A</b>	<b>39.A</b>
<b>40.D</b>	<b>41.D</b>	<b>42.D</b>	<b>43.B</b>	<b>44.A</b>	<b>45.D</b>		

## Verbal Ability

<b>46.C</b>	<b>47.B</b>	<b>48.D</b>	<b>49.D</b>	<b>50.D</b>	<b>51.B</b>	<b>52.B</b>	<b>53.D</b>
<b>54.C</b>	<b>55.B</b>	<b>56.A</b>	<b>57.D</b>	<b>58.A</b>	<b>59.D</b>	<b>60.B</b>	<b>61.A</b>
<b>62.A</b>	<b>63.A</b>	<b>64.A</b>	<b>65.B</b>	<b>66.B</b>	<b>67.B</b>	<b>68.D</b>	<b>69.A</b>
<b>70.C</b>	<b>71.D</b>	<b>72.B</b>	<b>73.B</b>	<b>74.C</b>	<b>75.B</b>	<b>76.B</b>	<b>77.D</b>
<b>78.A</b>	<b>79.D</b>	<b>80.B</b>	<b>81.A</b>	<b>82.C</b>	<b>83.A</b>	<b>84.C</b>	<b>85.D</b>
<b>86.A</b>	<b>87.C</b>	<b>88.B</b>	<b>89.D</b>	<b>90.B</b>			