

CMAT 2018 Memory Based Question Paper PDF

1. How many iron balls, each of radius 1 cm, can be made from a sphere whose radius is 8 cm?
(A) 64
(B) 256
(C) 512
(D) 124
2. If a is between 0 and 1, which of the following statements is (are) true?
(i) $a^2 - 1 > 0$
(ii) $a^2 + 1 > 0$
(iii) $a^2 - a > 0$
(A) only (ii)
(B) (i) & (ii)
(C) (iii) only
(D) All three
3. A pie chart provides the revenue share of six companies in 2010: P (22%), Q (26%), R (12%), S (10%), T (14%), and U (16%). If the revenue share of company T increases by 20% in 2011, find the percentage increase in the total revenue of these six companies in 2011, assuming all other companies generated the same revenue as in 2010.
(A) 2.8%
(B) 3.2%
(C) 1.8%
(D) 2.6%
4. In how many years will Rs. 2 lakh double itself at 11.5% per annum simple interest?
(A) Less than 8
(B) Between 8 and 9
(C) 9.3
(D) 10.5
5. If $AB + C = D$, find A and C given that when $B = 6, D = 30$ and when $B = 8, D = 36$.

- (A) $A = 2, C = 6$
- (B) $A = 3, C = 12$
- (C) $A = 6, C = 3$
- (D) $A = 4, C = 3$

6. If $y^2 + 3y - 18 \geq 0$, which of the following is true?

- (A) $y \leq 3$ or $y \geq 0$
- (B) $y > -6$ or $y < 3$
- (C) $-6 \leq y \leq 3$
- (D) $y \geq 3$ or $y \leq -6$

7. In how many different ways can 3 red balls, 2 blue balls and 4 yellow balls be arranged so that the balls of the same color come together?

- (A) 1742
- (B) 1732
- (C) 1728
- (D) 1750

8. Based on courier charges (Rs.) for 1 kg: Ahmedabad to Mumbai (10), Ahmedabad to Kolkata (5), Ahmedabad to Jaipur (10), Mumbai to Bangalore (25), Kolkata to Mumbai (7), Jaipur to Bangalore (15). Among these, the charges are **least** for:

- (A) Ahmedabad to Jaipur
- (B) Mumbai to Bangalore
- (C) Jaipur to Bangalore
- (D) Kolkata to Mumbai

9. Three numbers X, Y and Z are in the ratio 12: 15: 25. If the sum of twice of these numbers is 614, the ratio between the difference of $(Y - X)$ and $(Z - Y)$ is:

- (A) 3:7
- (B) 5:1
- (C) 3:10
- (D) 10:3

10. Ankush and Babulal walk around a circular track starting at 9 a.m. from the same point in opposite directions at 3 rounds/hr and 5 rounds/hr respectively. How many times shall they cross each other until 10:30 a.m.?

- (A) 9
- (B) 10

- (C) 12
- (D) 11

11. Monthly incomes of Amit and Bharat are in ratio 5:4, expenses in 19:21, and savings in 37:18. If the total annual savings of both is Rs. 1,32,000, Amit's monthly income is:
- (A) Rs. 12,000
 - (B) Rs. 15,000
 - (C) Rs. 18,000
 - (D) Rs. 16,000
12. In a circle of radius 6 cm, arc AB makes an angle of 114° at the centre O . What is the angle ABO ?
- (A) 23°
 - (B) 42°
 - (C) 38°
 - (D) 33°
13. In a survey of 120 houses: 50 read TOI, 60 read IE, 48 read HT. 20 read TOI & IE, 18 read TOI & HT, 24 read IE & HT. 10 read all three. How many read **only one** newspaper?
- (A) 50
 - (B) 32
 - (C) 64
 - (D) 84
14. The minute hand of a watch is 42 mm long. The area swept by it in 30 minutes (taking $\pi = 3.14$) is:
- (A) 2769.5 mm^2
 - (B) 44π
 - (C) 728
 - (D) 1040π
15. If $(x + 4)$ is a factor of $x^3 + 2x^2 + bx + 68$, what is the value of b ?
- (A) -9
 - (B) 9
 - (C) 8
 - (D) -8
16. Rakesh covers 12 km at 6 km/hr, 36 km at 9 km/hr and 32 km at 4 km/hr. Find the approximate average speed for the whole distance.

- (A) 4.2 km/hr
- (B) 5.52 km/hr
- (C) 5.71 km/hr
- (D) 5 km/hr

17. Pipes A and B fill a cistern in 120 and 150 mins. With outlet C, all three fill it in 100 mins. How much time will C take to empty the full tank?

- (A) 3 h 20 min
- (B) 2 h 40 min
- (C) 3 h
- (D) 3 h 40 min

18. Ramesh works A hours and rests B hours daily for a week, then reverses the pattern the next week. This continues for 4 weeks. In the 5th week, he adopts a new pattern.

Week	1st	5th	9th	13th
Rest	3	4	5	-
Work	6	8	9	8

If he is paid Rs. 60/hr for working and Rs. 30/hr (half) for resting, what is his salary for the **1st month** (4 weeks, 6 days/week)?

- (A) Rs. 6840
- (B) Rs. 11400
- (C) Rs. 7240
- (D) None of these

19. In a box, there are 8 yellow and 4 black balls. If 3 balls are drawn at random, what is the probability that two are yellow and one is black?

- (A) $1/16$
- (B) $28/55$
- (C) $3/8$
- (D) ${}^8C_2/{}^{12}C_3$

20. If $\tan A + \cot A = \sqrt{5}$, what is the value of $\tan^3 A + \cot^3 A$?

- (A) $\sqrt{5}$
- (B) 3
- (C) $2\sqrt{5}$
- (D) $2/\sqrt{5}$

21. Two balls were bought for Rs. 37.40 at a discount of 15%. What was the marked price of each ball?
- (A) Rs. 11
(B) Rs. 22
(C) Rs. 33
(D) Rs. 44
22. Find the value of a , if: $|2a - 3| = 3a + 2$.
- (A) $1/5$
(B) 0
(C) -5
(D) $-1/5$
23. From a jar of 32L wine, 4L is replaced with water. If this is done two more times, what is the final ratio of wine to water?
- (A) 245:166
(B) 343:169
(C) 363:173
(D) 323:189
24. The geometric mean proportion between $(30 + \sqrt{200})$ and $(54 - \sqrt{648})$ is:
- (A) $6\sqrt{2}$
(B) $4\sqrt{5}$
(C) $6\sqrt{35}$
(D) $5\sqrt{6}$
25. Anil is twice as good a student as Bharat and finishes a work in 30 minutes less than Bharat. In what time can they finish it together?
- (A) 45 min
(B) 30 min
(C) 25 min
(D) 20 min

Section 2: Logical Reasoning

26. A river flows West to East, turns Left, goes some distance, encounters a hill, goes counter-clockwise in a quarter circle around it, and then turns Right. Which direction is it finally flowing?
- (A) North
 - (B) South
 - (C) East
 - (D) West
27. Statement: "Whenever Preeti's father is in town, she abstains from school and goes to her aunt's house." Which is correct?
- (A) If she hasn't abstained or gone to her aunt's, her father is not in town.
 - (B) If she hasn't abstained but her father is in town, she will definitely go to her aunt's.
 - (C) If she has abstained but hasn't gone to her aunt's, her father is not in town.
 - (D) Both (A) and (C).
28. Four friends (Liyaqat, Lillian, Lima, Lalit) sit on a bench. Lillian and Lima have at least one person between them. Liyaqat is to the right of Lima but not right of Lalit. Lalit is next to Lillian. Lima is at a corner. Which is true?
- (A) Lillian and Liyaqat are next to each other.
 - (B) Liyaqat is at a corner.
 - (C) One person between Lalit and Liyaqat.
 - (D) One person between Lalit and Lima.
29. Ali, Benu, Cutty, Dolly play Basketball, Cricket, Kabaddi, Hockey. Ali doesn't play Basketball/Cricket. Benu doesn't play Kabaddi/Hockey. Cutty plays Hockey. Dolly plays Basketball or Hockey. Who plays cricket?
- (A) Ali
 - (B) Benu
 - (C) Cutty
 - (D) Dolly
30. In a grid: R1 is East of R2 and West of R3; R8 is Southwest of R3 and R2; R2 is Southeast of R24. Which are farthest South and farthest East?
- (A) R1, R2
 - (B) R8, R3
 - (C) R3, R8
 - (D) R2, R8

31. 125 small identical cubes form a large cube. How many small cubes are needed to cover this large cube completely?
- (A) 208
(B) 212
(C) 254
(D) 218
32. Five boys: Ishan gets more than Kailash. Jaikee gets less than Ganesh. Hitesh gets more than Jaikee and Kailash. Who could have the lowest marks?
- (A) Ganesh
(B) Hitesh
(C) Ishan
(D) Jaikee
33. Main: "All cubes are round." (A) Fig A not round. (B) Fig A is a cube. (C) Fig A not a cube. (D) Fig A is round. Which pair is consistent?
- (A) CA
(B) DB
(C) AC
(D) AB
34. If + means sister, - brother, $\times$ daughter, $\div$ mother. Which shows p and r are wife and husband?
- (A) $p \div q \times r$
(B) $p - q \times r$
(C) $p + q \times r$
(D) $p + q - r$
35. If FRIGHTENS = 106 and SIMILARLY = 118, how is DEMONITISATION written?
- (A) 159
(B) 169
(C) 167
(D) 166
36. Items P, Q, R, S and wallets A, B, C are in a row. Wallet C is in the middle. No packet is at an extreme end. P is immediate left of R and immediate right of A. What is 3rd from the left?
- (A) C
(B) S

(C) R

(D) A

37. Fruits: Blackberry is heavier than Peach. Apple is heavier than Banana and fresher than Cherry. Cherry is heavier than Blackberry but less fresh than Peach. Banana is heavier than Blackberry. Which is lightest?

(A) Peach

(B) Blackberry

(C) Apple

(D) Banana

38. In the series [2 3 7 4 3 2 1 5 7 3 2 7 1 0 9 8 7 5 4 7 2 3], how many 7s are followed by an even number but NOT preceded by a prime?

(A) 1

(B) 2

(C) 3

(D) 4

39. Three kids get 6 color, 6 tiffin, and 6 chocolate boxes. Each kid gets the same total items. No one gets the same number of each type. What must be true?

(A) Each gets 2 of each.

(B) Each gets 2 tiffin/color.

(C) Each gets 1 color, 2 chocolate, 3 tiffin.

(D) Each gets 1, 2, and 3 boxes in some order.

40. Family (7 members, 3F, 4M): Architects (2), Travel Agents (2), Teacher (1), Engineer (1), Doctor (1). Ladies aren't teachers/engineers. C (Travel Agent) married to A (Teacher). F (Engineer) married to D. B is sister of G (Architect). What is E's profession?

(A) Architect

(B) Travel agent

(C) Engineer

(D) Doctor

41. Family: Qills (Bengali) is father of Tills. Uills (Tamilian) is grandfather of Rills. Sills (Punjabi) is grandmother of Tills. Telugu person is married female. Grandchildren aren't married. Married couples are:

(A) Pills-Qills & Uills-Sills

(B) Pills-Sills & Qills-Uills

- (C) Pills-Rills
- (D) Pills-Uills

42. Complete the series: 0, 6, 6, 20, 20,

- (A) 42
- (B) 40
- (C) 26
- (D) 32

43. Rahul said: "Your (Samir's) only brother is the father of my daughter's father." How is Samir related to Rahul?

- (A) Father
- (B) Grandfather
- (C) Brother-in-law
- (D) Uncle

44. Buildings: Green is shortest (Pradeep's). Lalita's is not Blue/White and taller than Meenal's/Rishi's. One person's name starts with building's color (2nd tallest). Which is true?

- (A) Lalita-Blue-Shortest
- (B) Meenal-Red-Tallest
- (C) Lalita-Orange-Tallest
- (D) Pradeep-Green-Tallest

45. Theatres: Chanakya (Horror-1, Religious-2). Maratha Mandir (History-2). DT (Thriller-2). Regal (Documentary). Drama is only Slot 2. Children & Cartoon in same theatre. What can Regal screen?

- (A) Cartoon & History
- (B) Documentary & Drama
- (C) Documentary & History
- (D) Horror & Documentary

Section 3: Verbal Ability

46. Five delegates (P, Q, R, S, T) forward files. P sends to Q, S, T. T sends to R. P and R exchange. Q sends to S. S sends to T. In how many ways can P forward a file to R?

- (A) Two
- (B) Three
- (C) Four

(D) One

47. According to Passage I, the beginning of morality is based on:

- (A) Ethical sense
- (B) Knowledge of evil and good
- (C) Tradition
- (D) Innate sense

48. One would assume from Passage I that the author probably taught:

- (A) Music
- (B) Popular culture
- (C) French
- (D) Philosophy

49. In Passage I, the author's attitude towards "popular how-to books" is:

- (A) Critical
- (B) Approving
- (C) Apathetic
- (D) Sympathetic

50. According to Passage II, the outlook towards science in the Middle Ages was:

- (A) Spirit of learning
- (B) Modern science born
- (C) Superstitions common
- (D) Blossomed unrestricted

51. Another word for FETTERS is:

- (A) Manacle
- (B) Hoop
- (C) Ornament
- (D) None

52. How were 16th-century scientists different from medieval ones?

- (A) Investigate before theory
- (B) Struggled against restrictions
- (C) Accepted hearsay

- 53.** How would you describe the writer's style in Passage III (Sales)?
- (A) Persuasive
 - (B) Critical
 - (C) Personal
 - (D) Argumentative
- 54.** In Passage III, the term "In order to" is used:
- (A) To describe an effect
 - (B) Cause
 - (C) Purpose
 - (D) Effort
- 55.** In Passage III, "key criterion" is closest in meaning to:
- (A) Confusion
 - (B) Contrary analysis
 - (C) Important point
 - (D) Minor issue
- 56.** Which approach in Passage III is the most complicated?
- (A) Narrative
 - (B) Consultative
 - (C) Suggestive
 - (D) No difference
- 57.** The writer of Passage III is probably:
- (A) An academic
 - (B) Journalist
 - (C) Businessman
 - (D) Sales professional
- 58.** Which approach works best for a first-of-its-kind technological product?
- (A) Narrative
 - (B) Consultative
 - (C) Suggestive
 - (D) Depends on product
- 59.** In Delhi Belly review, if you go for lunch, you expect to see:

- (A) Long line
- (B) Authorities
- (C) Newspaper critic
- (D) Well cooked snacks

60. Which illustrates the critic's opinion of food at Delhi Belly?

- (A) "Sit at four tables"
- (B) "Lines snake out"
- (C) "Throwing away plate was enjoyable"

61. The main purpose of the Delhi Belly review is to:

- (A) Tell people they don't want to eat there
- (B) Make fun of couples
- (C) Recommend lunch special

62. Synonymous with: PERFIDY.

- (A) Thrift
- (B) Loyalty
- (C) Sincerity
- (D) Betrayal

63. Synonymous with: SABOTAGE.

- (A) Destructive action
- (B) Resistance
- (C) Deliberate subversion
- (D) Vandalism

64. Opposite of: BASHFUL.

- (A) Bawling
- (B) Arrogant
- (C) Impetuous
- (D) Kindly

65. Complete: POSTURE : BEARING :: _____

- (A) Regimentation: uniformity
- (B) Deportment: behavior
- (C) Anarchy: street brawls

- 66.** Closest substitute for: "producing voice sounds".
- (A) Mono acting
 - (B) Mimicry
 - (C) Ventriloquism
 - (D) Caricature
- 67.** Definition: "Maneuvering". Which fits best?
- (A) Planning wedding
 - (B) Manager making way to top
 - (C) Captain giving orders
- 68.** Classify (Fact, Judgement, Inference): 1. God created earth. 2. God exists. 3. Wine tastes better than beer.
- (A) 1F,2J,3J
 - (B) 1J,2J,3J
 - (C) 1I,2F,3J
 - (D) 1J,2J,3I
- 69.** Classify (F, J, I): 1. Rain 80%, take umbrella. 2. Throat sore, caught cold. 3. 40M volumes, has 'Savitri'.
- (A) 1I,2I,3J
 - (B) 1I,2I,3I
 - (C) 1F,2F,3J
 - (D) 1J,2J,3F
- 70.** Figure of Speech: "I am so tired that I can sleep for a year."
- (A) Hyperbole
 - (B) Pun
 - (C) Oxymoron
 - (D) Understatement
- 71.** Preposition: "A plane flies _____ the clouds."
- (A) in
 - (B) above
 - (C) along
 - (D) with

Section 4: General Awareness

76. _____ varies directly with vibrating body's amplitude.
- (A) Loudness of sound
 - (B) Modulation
 - (C) Quality
 - (D) Tone
77. Saltwater freezes at a slightly _____ temperature than fresh water.
- (A) Same
 - (B) Higher
 - (C) Lower
 - (D) Seawater doesn't freeze
78. Human eye is most sensitive to which color in daylight?
- (A) Yellow
 - (B) Green
 - (C) Yellowish Green
 - (D) Red
79. Data Capacity of a standard size CD ROM is?
- (A) 650-700 MB
 - (B) 185-210 MB
 - (C) 550-600 MB
 - (D) 500-650 MB
80. Indian Railways generates highest revenue from:
- (A) Passenger fare
 - (B) Freight fare
 - (C) Parcel
 - (D) Sundry earnings
81. A hash function guarantees that a message has not been:
- (A) Exchanged
 - (B) Overviewed
 - (C) Changed
 - (D) Violated

- 82.** Sections 299 to 377 of Indian Penal Code are:
- (A) Offences Against Property
 - (B) Affected Human Body
 - (C) Relating to Marriage
- 83.** Stand Up India Scheme facilitates loans between Rs. 10 Lakh and 1 Crore for:
- (A) SC/ST borrowers
 - (B) Woman borrowers
 - (C) Greenfield enterprises
 - (D) All of these
- 84.** Google guide for users through 'shortcuts' is accessible by:
- (A) Heavy vehicles
 - (B) Two wheelers
 - (C) Cars
 - (D) Taxies
- 85.** Who launched an e-commerce startup for farm equipment rental?
- (A) Mahindra and Mahindra
 - (B) Escorts
 - (C) Standard Tractors
 - (D) John Deere
- 86.** India met goal of elimination of which disease under GET2020?
- (A) Trachoma
 - (B) Tuberculosis
 - (C) Ebola
 - (D) Keratoconus
- 87.** Languages included in 8th Schedule by 71st amendment:
- (A) Konkani, English, Manipuri
 - (B) Konkani, Nepali, Dogri
 - (C) Konkani, Manipuri, Nepali
- 88.** Gas used to disinfect water in sewage treatment?
- (A) Ozone

- (B) Chlorine
- (C) Nitrogen
- (D) Ozone and chlorine

89. An election called earlier than expected is a:

- (A) Snap election
- (B) By-election
- (C) General election
- (D) Recall election

90. Harappan Civilization date (2300-1750 BC) was fixed using:

- (A) Dendrochronology
- (B) Stratification
- (C) Carbon isotopes
- (D) Radio carbon dating

91. Which statement about plants is correct?

- (A) Photosynthesis faster than respiration
- (B) Proceed at same rate
- (C) No connection

92. Which is correct regarding BrahMos? (1) Ramjet joint venture ISRO-Russia. (2) Launched from subs/ships/land. (3) Double range agreed.

- (A) 1 only
- (B) 2 and 3
- (C) 1 and 3
- (D) 1, 2 and 3

93. HIV/AIDS Bill 2017: (1) Prohibits discrimination. (2) ART is a legal right. (3) Property rights safeguarded. (4) Reside in shared household under 18.

- (A) 1 and 2
- (B) 3 only
- (C) 2 and 3
- (D) 1, 2, 3 and 4

94. How many angular bleed lines are on the new Rs. 2000 bank note?

- (A) 7

- (B) 4
- (C) 6
- (D) 5

95. Which of the following banned 'manjha' for kites?

- (A) Supreme Court
- (B) NGT
- (C) Health Ministry
- (D) Environment Ministry

96. Who said "The greater number of fortresses you hold the weaker your power... forces on sea"?

- (A) Da Almeida
- (B) John Cabot
- (C) Columbus
- (D) Amerigo Vespucci

97. 'Vote on account' is dealt in which article?

- (A) 121
- (B) 116
- (C) 171
- (D) 131

98. The Taj Mahal is threatened due to:

- (A) Carbon dioxide
- (B) Carbon monoxide
- (C) Sulphur dioxide
- (D) Calcium oxide

99. Who painted 'The Persistence of Memory'?

- (A) Leonardo da Vinci
- (B) Vincent van Gogh
- (C) Edvard Munch
- (D) Salvador Dali

100. Who is the famous sports personality in the hockey image?

- (A) Syed Abdul Rahim
- (B) Farokh Engineer
- (C) Ashok Mankad
- (D) Dhyanchand