

CMAT 2023 Memory Based Paper PDF

1. Given below are two statements:

Statement I: A savings account at Bank A pays 6.2% interest, compounded annually. Bank B's savings account pays 6% compounded semi-annually. Bank B is paying less total interest each year.

Statement II: A sum of money at a certain rate of compound interest doubles in 3 years. In 9 years, it will be P times the original principal. Then $P = 9$.

In the light of the above statements, choose the **correct** answer from the options given below:

- (A) Both Statement I and Statement II are true
- (B) Both Statement I and Statement II are false
- (C) Statement I is true but Statement II is false
- (D) Statement I is false but Statement II is true

2. Consider the function F defined by $F(x) = |2x| + 4$. For which of the following functions G does the graph of G intersect the graph of F ?

- (A) $G(x) = x + 3$
- (B) $G(x) = 2x - 2$
- (C) $G(x) = 2x + 3$
- (D) $G(x) = 3x - 2$

3. If the selling price of 320 Web Cameras is equal to the cost price of 400 Web Cameras, then the percentage profit is:

- (A) 12% (B) 20% (C) 40% (D) 25%

4. The cost of three components A, B, and C of a machine worth 12,000 in 2020 is given by a pie chart (A: 90° , B: 120° , C: 150°). In 2021, costs increased by 10%, 20%, and 10% respectively. The new costs are:

- (A) 3,300, 4,950, 5,350
- (B) 3,300, 4,800, 5,500
- (C) 3,200, 4,700, 5,600
- (D) 3,600, 4,800, 5,600

5. What is the 95th term of the following letter series?

A, A, B, B, B, B, C, C, C, C, C, C, D, D, D, D, D, D, D, D, E, ...

- (A) H (B) I (C) J (D) K

6. A sum of money earns a simple interest of 800 over a 2-year period. The same sum invested at the same rate on a compound interest basis earns 900. What is the sum?

- (A) 1,200 (B) 1,600 (C) 2,000 (D) 2,400

7. If $x > 0$, which of the following are equal to 3.6% of $\frac{5x}{12}$?

- A. 3 percent of $20x$ B. x percent of $\frac{3}{2}$ C. $3x$ percent of 0.2 D. 0.05 percent of $3x$ E. $\frac{3x}{200}$

(A) A and B only (B) A and E only (C) C and D only (D) B and E only

8. **Statement I:** Ravi reaches college 10 mins late at 5 km/hr. At 6 km/hr, he reaches 4 mins early. If distance is P km, then $P = 7.5$ km.

Statement II: Amit runs $2\frac{1}{3}$ times as fast as Babita. If Amit gives Babita a start of 80m, the winning post must be 140m far for them to reach at the same time.

(A) Both True (B) Both False (C) I True, II False (D) I False, II True

9. Let a, b, c be ages of P, Q, R where $a \leq b \leq c$. Average age is 32. If $b = a + 6$, what is the minimum possible value of c ?

(A) 34 years (B) 36 years (C) 38 years (D) 32 years

10. **Regarding the word SYLLABUS:**

Statement I: The probability that the two S's are together is $\frac{1}{4}$.

Statement II: The probability that the word begins and ends with L is $\frac{1}{28}$.

(A) Both True (B) Both False (C) I True, II False (D) I False, II True

11. What is the probability of getting a sum of 22 or more when four dice are thrown?

(A) $\frac{5}{432}$ (B) $\frac{4}{648}$ (C) $\frac{1}{144}$ (D) $\frac{7}{36}$

12. A train at 18 km/hr crosses a mark in 9s and a platform in 25s. If P is train length and Q is platform length (in meters), then (P, Q) is:

(A) (45, 80) (B) (45, 75) (C) (50, 90) (D) (50, 80)

13. P, Q and R fill a tank in 6h. After 2h together, R is closed. P and Q fill the rest in 7h. Time taken by R alone is:

(A) 10h (B) 12h (C) 14h (D) 16h

14. What is the area of an equilateral triangle whose inscribed circle has radius R ?

(A) $4R^2$ (B) $3\sqrt{3}R^2$ (C) $(3 + 2\sqrt{2})R^2$ (D) $4\sqrt{3}R^2$

15. The number of all integers n for which $n^2 + 96$ is a perfect square, is:

(A) 4 (B) 6 (C) 8 (D) 10

16. **Statement I:** Ways to pack 6 identical books into 4 identical boxes (max 6 per box) is 9.

Statement II: Students needed to guarantee at least 6 birthdays in the same month is 61.

(A) Both True (B) Both False (C) I True, II False (D) I False, II True

17. **Statement I:** Son:Father age is 1:5. Product is 245. Ratio after 9 years is 3:5.

Statement II: Milkman adds 30L water to 70L milk. Sells $\frac{1}{5}$ th, adds water equal to sold quantity. New ratio is 28:72.

(A) Both True (B) Both False (C) I True, II False (D) I False, II True

18. If $x - \frac{1}{x} = y, y - \frac{1}{y} = z, z - \frac{1}{z} = x$, which is true?

A. $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 0$ B. $\frac{1}{x^2} + \frac{1}{y^2} + \frac{1}{z^2} = 8$ C. $\frac{1}{xy} + \frac{1}{yz} + \frac{1}{zx} = -3$

(A) A and B only (B) A and C only (C) B and C only (D) A, B and C only

19. If $5^a = 9^b = 2025$, then the value of $\frac{ab}{a+b} = \underline{\hspace{2cm}}$.

(A) 4 (B) 3 (C) 2 (D) 1

20. Arrange in increasing order: A. $\sqrt{59} - \sqrt{51}$ B. $\sqrt{37} - \sqrt{29}$ C. $\sqrt{87} - \sqrt{79}$ D. $\sqrt{79} - \sqrt{71}$
 (A) B ; A ; D ; C (B) C ; D ; B ; A (C) B ; A ; C ; D (D) C ; D ; A ; B
21. Identify the odd group of letters: CE, IK, SV, FH, UW.
 (A) SV (B) IK (C) UW (D) FH
22. Select the pair with the same relationship: **Barometer : Pressure**
 (A) Force:KG (B) Richter Scale : Heat (C) Weighing Scale : Meter (D) Thermometer : Temperature
23. **Statement:** Should women be allowed to go out alone?
 Arg I: Yes, it makes them independent. Arg II: No, they need protection.
 (A) Arg I strong (B) Arg II strong (C) Both strong (D) Both weak
24. **Assumption:** Some people believe in God.
 Assump II: Not everything is human-made. Assump III: Humans are imperfect.
 (A) Only I implicit (B) Only II implicit (C) Both implicit (D) Neither implicit
25. **Match Meanings:** (i) Higher position, (ii) Seriously suffering, (iii) Absolute best, (iv) Not practical.
 A. Moving up ladder, B. Range of services, C. Plagued with, D. Just a nice idea.
 (A) A-i, B-iii, C-ii, D-iv (B) A-iv, B-iii, C-ii, D-i (C) A-i, B-ii, C-iii, D-iv
26. If 23rd April 1995 was Tuesday, what was the day on 23rd April 1988?
 (A) Monday (B) Friday (C) Saturday (D) Sunday
27. Complete the series: 564, 152, 48, 21, _____.
 (A) 13.25 (B) 24.2 (C) 15.25 (D) 13.25
28. Out of 400 students, 240 opted for exam, 200 presentations, 160 assignments. 20 did nothing. 200 had exactly one method. How many had exactly two?
 (A) 140 (B) 160 (C) 220 (D) 170
41. Opposite of **Intrepid**: (A) Amiable (B) Fiendish (C) Tranquil (D) Cowardly.
42. Fill: (a) _____ sale of narcotics. (b) _____ to keep off epidemic. (c) A _____ of terrorists. (d) _____ of employees.
 (A) (a) Illicit, (b) Counsel, (c) Horde, (d) Dependents
43. Idiom "Lion's share" means: (A) Adequate (B) Lesser (C) Larger (D) None.
44. Synonym of **Confess**: (A) Agree (B) Admit (C) Understand (D) Decide.
45. Phrase "Golden mean" means: (A) Opulent life (B) Middle path (C) Golden path.
46. Match phrases: (A) Carpe Diem, (B) Faux Pas, (C) Magnum Opus, (D) Prima Facie.
 (I) Accepted until proven, (II) Blunder, (III) Important work, (IV) Seize the day.
47. Meaning of **Ephemeral**: (A) Vulnerable (B) Ambivalent (C) Short-lived (D) Flamboyant.
61. Butterfly term is associated with: (A) Kabaddi (B) Boxing (C) Swimming (D) Wrestling.
62. First country to be called "Banana Republic": (A) Bermuda (B) Honduras (C) Haiti.

63. Author of "The Struggle in My Life": (A) Mandela (B) Jomo Keryatta (C) Tutu.
64. Structural Biologist, 2009 Nobel in Chemistry: (A) Har Gobind Khorana (B) Venkatraman Ramakrishnan.
65. Nov 2020 Bank merger: (A) Lakshmi Vilas + DBS Bank of India (B) DBS + Allahabad.
66. Which river is part of Peninsular system? (A) Betwa (B) Beas (C) Narmada (D) Tapi.
67. Name actual Corona Variants: (A) Alpha, (B) Beta, (C) Gamma, (D) Delta, (E) Kappa.
68. Highest pending cases in March 2022: (A) Allahabad High Court (B) Karnataka.
81. Full form of EPCG: **Export Promotion Capital Goods.**
82. SMILE loan by SIDBI focus: **Debt-equity ratio / Growth.**
83. Entrepreneur means: (A) Struggle (B) Undertake (C) Invent (D) Motivate.
84. MUDRA bank start-up loan limit: (A) 20 lacs (B) 10 lacs (C) 40 lacs (D) 30 lacs.
85. BRIC countries: (A) Brazil, Russia, India, China.
86. Legal term for Brand: **Trademark.**
87. Schumpeter's primary function of entrepreneur: **Innovation.**
88. PowerPoint business plan format: **Pitch deck.**
89. Full form of CGTMSE: **Credit Guarantee Fund Trust for Micro and Small Enterprises.**