## CAT Slot 1 Question Paper 2023

## CAT Slot 1 Quant Memory-Based Question Paper 2023

1. Geets sells Product $A$ at $20 \%$ profit and Product $B$ at $10 \%$ loss at the same selling process. If she increases the selling price so that both products are still sold at equal prices and a profit of $10 \%$ is made on $B$ then the profit made on $A$ will be.
2. From a cup of coffee, some of the coffee is removed and replaced with the cocoa powder, This mix $p$ is formed, The same amount of mixture is removed from Mix $P$ and replaced with the coco powder. Thus, mix $q$ is formed. Mix $q$ has coffee and coco powder in the ratio of 16:9. find the ratio of Coco powder in P: Q
3. Right angle triangle $A B C$ ab altitude $=5 \mathrm{~cm}$, base 12 two-point $p$ and $q$ on base such that area abc is 1.5 times apb find pa
4. The minor angle between the hour and minute hand of the clock was observed at 8:48 AM. The minimum deviation (in min.) after 8:48 AM when the angle increased by $50 \%$ is?
5. In an exam average marks scored by 4 girls and 6 boy is 24 , the marks scored by every girl is the same and every boy is the same and the marks scored by any girl is almost double the marks scored by any boy and the marks scored by the girl is not less than any boy then the number of possible different integer value of the total marks of the 2 girls and 6 boy is?
6. A container containing some amount of powder is replaced with cocoa powder. This process is again repeated and the ratio of power and cocoa powder after the process is 16:9. What was the initial ratio? Right angle triangle ABC ab altitude $=5 \mathrm{~cm}$, base 12 two-point $p$ and $q$ on base such that area abc is 1.5 times apb find pa ?
7. Salaries of A B C are in a ratio of 5:6:7. Their salaries increased in 1 st year by $20 \% 25 \%$ and $20 \%$. In 2 nd year, the salaries of $A$ and $C$ are again increased by $40 \%$ and $25 \%$. The new salary of $B$ is equal to the mean of salaries of $a, b$ and $c$. What is the approximate percentage increase in the salary of $B$ ?
8. How many number of integral solutions of the equation $2|x|\left(x^{2}+1\right)=5 x^{2}$ ? TITA question
9. $P$ travels from $A$ to $B, Q$ travels from $B$ to $A$ after meeting $p, P$ reaches $B$ in 6 hours and $q$ reaches $A$ in 24 hours. If the speed of $P$ is 54 kmph , find the distance between $A B$
10. Find the minimum value of $h+m$ if $(1134)^{h}$ is divisible by $168(168)^{m}$ is divisible by $(1134)^{h}$
11. A invests 22000 in a bank at $4 \%$ interest compounded semi-annually for 6 years. B invests some money in the same scheme for 5 years, then invests in another bank at $10 \%$ simple interest for 1 year. If the amount received by both at the end of 6 years was equal, how much money did $B$ invest?
12. The equation $x^{3}+(2 r+1) x^{2}+(4 r-1) x-2=0$ has 2 as one of the roots. If the other roots are real numbers then the minimum non-negative integer value of "e" is?
13. If $x$ and $y$ are real numbers such that $x^{2}+(x-2 y-1)^{2}+4 y(x+y)$, here the value $x-2 y$ is
14. How many natural numbers less than 1000 can be formed using the digits $0-9$ without repetition?
15. Brishti went on an 8-hour trip in a car, before the trip the car had travelled a total of x kms till then, where $x$ is a whole number and is palindromic, At the end of his trip the car had travelled a total of 26862 km . If Bristi never drove at more than $110 \mathrm{~km} / \mathrm{h}$, then the greatest possible average speed at which see dove is?
16. Let Alpha and Beta be the two distinct roots of $2 x^{2}-6 x+k=0$, such that (Alpha+beta) and alpha * beta are the distinct roots of the equation $x^{2}+p x+p=0$, then, the value of $8(k-p)$ ?
17. Find the number of natural numbers less than (or up to) 1000 having different digits.
18. Arvind went from point $A$ to $B$ and Surubhi from $B$ to $A$. They met somewhere between continuing their journey. Arvind took 6 hours and Surubhi took 24 hours to reach the respective destinations after the meeting. If Arvind travelled 54 kmph , what is the distance $A B$.
19. In quant, there were more questions from algebra
20. There were 6-8 questions from Algebra and the difficulty level was moderate. The questions were from logarithm, progression, modulus, and surds.
21. The arithmetics question in the quant section was comparatively easy and questions were based on Theta.
22. In Arithmetic questions were asked about (Time Work, Profit and Loss).
23. This time there was a mixture of modern maths and percentages.
24. There were 9 questions from the Arithmetic.
25. There was one question from mixture and allegation.
26. 4 questions from geometry, simple interest and compound interest 1.
27. There was one question on harmonic mean combined with the time and distance.
28. There were 3 questions from geometry, one question each from triangles, quadrilaterals, and circles.

## CAT Slot 1 DILR Memory-Based Question Paper 2023

1. A microorganism's population is checked at $8: 50$. Initial population is 2 and it becomes 3 more than double the previous population every hour. How many times this process would have been repeated after the population crosses one million?
2. There was 5 questions in the DLRI where in restaurants there are singers and rating is provided to each... (mean-median questions)
3. There are 6 blocks for each question with a price, parallel to that there is $T$ shaped road and opposite to that there are 6 blocks (DLRI question as per first reaction)
4. Next, there was 1 question from the visa office-based question and 1 from Roots and Network.
5. 5 questions were from LR-based DI ( $3 \times 2$ table)
6. 5 questions were from LR College Elections.
7. Questions were also asked from Ven Diagram, Time Speed \& Distance, and Puzzles.
8. In DILR three sets were easy compared to the other sets (Total 5 Questions 4 Sets)

## CAT Slot 1 VARC Memory-Based Question Paper 2023

The question paper had a total of 4 RC comprehension (each with 4 questions) and the pattern was similar to the previous year

1. RC 1: Human Behaviour
2. RC 2: Indian Ocean-based Geographical Literature
3. RC 3: Changes in Work Culture (Philosophy-based comprehension)
4. RC 4: Environmentalists vs Farmers on Wolf- Easy Fact-based and Inference-based questions
5. Para Jumble -2 questions of a moderate difficulty level
6. Odd One Out - 1 question of a moderate difficulty level
7. Fill in the blanks -2 questions of an easy-to-moderate difficulty level
8. Para Completion-2 questions of an easy difficulty level
9. Para Summary - 2 questions of an easy difficulty level
