CAT 2011 QA Slot 2 Question Paper

Time Allowed :3 Hours | **Maximum Marks :**300 | **Total questions :**100

General Instructions

Read the following instructions very carefully and strictly follow them:

- 1. **Duration of Section:** 40 Minutes
- 2. **Total Number of Questions:** 22 Questions (as per latest pattern, may vary slightly)
- 3. **Section Covered:** Quantitative Aptitude (QA)
- 4. Type of Questions:
 - Multiple Choice Questions (MCQs)
 - Type In The Answer (TITA) Questions No options given, answer to be typed in
- 5. Marking Scheme:
 - +3 marks for each correct answer
 - -1 mark for each incorrect MCQ
 - No negative marking for TITA questions
- 6. **Syllabus Coverage:** Arithmetic, Algebra, Geometry, Number System, Modern Math, and Mensuration
- 7. **Skills Tested:** Numerical ability, analytical thinking, and problem-solving

1. If the cost price of an item is Rs. 200 and it is sold at a 25% profit, what is the selling
price?
(1) Rs. 225
(2) Rs. 250
(3) Rs. 275
(4) Rs. 300
2. What is the value of x in the equation $2x + 5 = 13$?
(1) 3
(2) 4
(3) 5
(4) 6
3. A train travels 240 km in 4 hours. What is its speed in km/h?
(1) 50
(2) 60
(3) 70
(4) 80
4. The ratio of two numbers is 3:4. If their sum is 70, what is the larger number?
(1) 30
(2) 40
(3) 50
(4) 60
5. What is the area of a rectangle with length 12 cm and width 5 cm?
$(1) 50 \text{ cm}^2$
$(2) 60 \text{ cm}^2$
$(3) 70 \text{ cm}^2$
(4) 80 cm ²

6. If $x^2 - 5x + 6 = 0$, what is the sum of the roots? (1) 3 (2) 4 (3) 5

7. A shop offers a 20% discount on an item with a marked price of Rs. 500. What is the selling price?

(1) Rs. 350

(4)6

(2) Rs. 400

(3) Rs. 450

abuses(4) Rs. 480

8. What is the LCM of 12 and 18?

- (1)24
- (2)36
- (3)48
- (4)72

9. A man invests Rs. 10,000 at 5% simple interest per annum. What is the interest earned after 2 years?

- (1) Rs. 1,000
- (2) Rs. 1,200
- (3) Rs. 1,500
- (4) Rs. 2,000

10. If x + y = 10 and xy = 21, what is $x^2 + y^2$?

- (1)58
- (2)64
- (3)72
- (4)79

11. The circumference of a circle is 44 cm. What is its radius? (Use $\pi = \frac{22}{7}$).
(1) 6 cm
(2) 7 cm
(3) 8 cm
(4) 9 cm
12. A number when divided by 7 leaves a remainder of 4. What is the remainder when it is
divided by 5?
(1) 2
(2) 3
(3) 4
(4) 5
13. A boat travels 60 km downstream in 3 hours. What is the speed of the boat in still water
if the river's speed is 5 km/h?
(1) 10 km/h
(2) 15 km/h
(3) 20 km/h
(4) 25 km/h
14. If $a = 2b$ and $b = 3c$, what is the ratio $a : b : c$?
(1) 2:3:1
(2) 6:3:1
(3) 3:2:1
(4) 1:2:3
15. What is the value of $\sqrt{169}$?
(1) 11
(2) 12
(3) 13

(4)	١ 1	4
14	, 1	4

16. A sum of Rs. 5	0,000 is invested at 10% compound interest annually for 2 year	s. What is
the total amount?		

- (1) Rs. 6,000
- (2) Rs. 6,050
- (3) Rs. 6,100
- (4) Rs. 6,150

17. If
$$3x + 2y = 12$$
 and $x - y = 1$, what is x?

- (1) 2
- (2) 3
- (3)4
- (4)5

18. What is the HCF of 24 and 36?

- (1)6
- (2) 12
- (3) 18
- (4) 24

19. A car travels 300 km at an average speed of 60 km/h. How long does it take?

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

20. If
$$2^x = 16$$
, what is x ?

- (1) 2
- (2) 3
- (3)4

(4)5

21. A sum of Rs. 8,000 is lent at 8% simple interest for 3 years. What is the total amount?

- (1) Rs. 9,920
- (2) Rs. 9,940
- (3) Rs. 9,960
- (4) Rs. 9,980

22. What is the area of a triangle with base 10 cm and height 8 cm?

- (1) 30 cm²
- (2) 40 cm²
- (3) 50 cm²
- (4) 60 cm²

23. If $x^2 + 4x + 4 = 0$, what is x?

- (1) -1
- (2) -2
- (3) -3
- (4) -4

24. A man works 8 hours a day for 5 days to earn Rs. 4,000. What is his hourly wage?

- (1) Rs. 80
- (2) Rs. 100
- (3) Rs. 120
- (4) Rs. 140

25. If 5x = 25, what is x?

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

26. A pipe fills a tank in 6 hours. Another pipe fills it in 8 hours. How long to fill the tank
together?
(1) 3.43 hours
(2) 3.53 hours
(3) 3.63 hours
(4) 3.73 hours
27. What is the perimeter of a square with side 7 cm?
(1) 24 cm
(2) 28 cm
(3) 32 cm
(4) 36 cm
28. If $x^2 - 3x + 2 = 0$, what is the product of the roots?
(1) 1
(2) 2
(3) 3
(4) 4
29. A man buys 5 kg of apples at Rs. 20 per kg and 3 kg of oranges at Rs. 30 per kg. What
the total cost?
(1) Rs. 170
(2) Rs. 180
(3) Rs. 190
(4) Rs. 200
30. If $3x + 4 = 19$, what is x ?
(1) 4

(2) 5

(3) 6

31. What is the area of a circle with radius 7 cm? (Use $\pi = \frac{22}{7}$).
$(1) 154 \text{ cm}^2$
(2) 165 cm ²
(3) 176 cm ²
(4) 187 cm ²
32. If the sum of three consecutive integers is 24, what is the middle integer?
(1) 7
(2) 8
(3) 9
(4) 10
33. A sum of Rs. 12,000 is lent at 6% simple interest for 4 years. What is the interest?
(1) Rs. 2,880
(2) Rs. 2,900
(3) Rs. 2,920
(4) Rs. 2,940
34. What is the value of $3^3 \times 2^2$?
(1) 98
(2) 108
(3) 118
(4) 128