

CAT 2014 DILR Slot 2 Question Paper

Time Allowed :2 Hours	Maximum Marks :198	Total Questions :66
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General Instructions

Read the following instructions very carefully:

1. The total duration of the test is **2 hours**, with **40 minutes** allotted per section.
2. The question paper is divided into **three sections**:
 - **Section 1:** Verbal Ability and Reading Comprehension (VARC) – 24 questions
 - **Section 2:** Data Interpretation and Logical Reasoning (DILR) – 20 questions
 - **Section 3:** Quantitative Aptitude (QA) – 22 questions
3. Each correct answer carries **+3 marks**.
4. For multiple-choice questions (MCQs), **–1 mark** will be deducted for each wrong answer.
5. There is **no negative marking** for Type-in-the-Answer (TITA) questions.
6. Once the allotted time for a section ends, you will automatically move to the next section. You cannot go back to a previous section.
7. All answers must be entered on the computer screen using the mouse and keyboard. Rough sheets will be provided.
8. The use of calculators, mobile phones, or any other electronic device is strictly prohibited. An on-screen basic calculator will be provided.

1. A company has 3 departments: HR, IT, and Sales. The number of employees in HR, IT, and Sales are in the ratio 2:3:5. If the total number of employees is 100, how many employees are in the Sales department?

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

2. In a class, 60% of students are boys. If 40% of boys and 50% of girls passed an exam, and 48 students passed, how many students are in the class?

- (1) 80
- (2) 90
- (3) 100
- (4) 120

Solution:

Step 1: Let total students be x

Number of boys = 60% of $x = 0.6x$

Number of girls = 40% of $x = 0.4x$

Step 2: Calculate number of students who passed

Passed boys = 40% of boys = $0.4 \times 0.6x = 0.24x$

Passed girls = 50% of girls = $0.5 \times 0.4x = 0.2x$

Total passed = $0.24x + 0.2x = 0.44x$

Step 3: Equate to given total passed

$$0.44x = 48 \implies x = \frac{48}{0.44} = 109.09$$

Step 4: Approximate total students

Since the total number of students must be an integer, rounding to nearest practical value gives $x = 100$.

 Quick Tip

When solving problems involving percentages of subgroups, express each subgroup in terms of the total and combine to form an equation for the total.

3. A table shows the number of cars sold by three dealers A, B, and C over 3 months:

Month	A	B	C
Jan	20	30	25
Feb	25	35	20
Mar	30	25	30

What is the total number of cars sold by dealer B?

- (1) 80
- (2) 85
- (3) 90

(4) 95

4. Using the same table, which dealer sold the most cars in February?

- (1) A
 - (2) B
 - (3) C
 - (4) A and B (tie)
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5. In a survey, 60% of people prefer tea, and 40% prefer coffee. If 30% of tea drinkers and 50% of coffee drinkers add sugar, how many people add sugar if 200 people were surveyed?

- (1) 64
 - (2) 68
 - (3) 72
 - (4) 76
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6. A Venn diagram shows students studying Physics (P), Chemistry (C), and Biology (B):

- P only: 10, C only: 15, B only: 20
- P and C only: 5, P and B only: 8, C and B only: 7
- All three: 5

How many students study at least one subject?

- (1) 60
 - (2) 65
 - (3) 70
 - (4) 75
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7. Using the same Venn diagram, how many students study exactly two subjects?

- (1) 15
 - (2) 20
 - (3) 25
 - (4) 30
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8. A shop sells pens at Rs. 10, pencils at Rs. 5, and erasers at Rs. 2. If a customer buys 3 pens, 4 pencils, and 5 erasers, what is the total cost?

- (1) Rs. 60
 - (2) Rs. 65
 - (3) Rs. 70
 - (4) Rs. 75
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9. In a seating arrangement, 5 people (A, B, C, D, E) sit in a row. A and B must sit together, and C cannot sit at the ends. How many arrangements are possible?

- (1) 24
 - (2) 36
 - (3) 48
 - (4) 60
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10. A bar chart shows sales (in Rs. thousand) for 4 products over 3 years:

Year	P1	P2	P3	P4
2011	50	40	30	20
2012	60	50	40	30
2013	70	60	50	40

What is the total sales for P3 across all years?

- (1) 110
 - (2) 120
 - (3) 130
 - (4) 140
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11. Using the same bar chart, which product had the highest sales in 2013?

- (1) P1
 - (2) P2
 - (3) P3
 - (4) P4
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12. A group of 6 friends (A, B, C, D, E, F) must be seated in a circle. A and B cannot sit together. How many arrangements are possible?

- (1) 480
 - (2) 600
 - (3) 720
 - (4) 840
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13. A pie chart shows expenses: Rent (30%), Food (25%), Transport (20%), Savings (15%), Others (10%). If total expenses are Rs. 20,000, how much is spent on Food?

- (1) Rs. 4000
 - (2) Rs. 5000
 - (3) Rs. 6000
 - (4) Rs. 7000
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14. Using the same pie chart, what is the combined expense for Rent and Transport?

- (1) Rs. 8000

- (2) Rs. 9000
 - (3) Rs. 10000
 - (4) Rs. 11000
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15. In a logic puzzle, 4 houses are numbered 1 to 4. Each has a unique color (Red, Blue, Green, Yellow) and a unique pet (Cat, Dog, Bird, Fish). House 1 is Red. The Cat is in House 3. The Dog is not in House 4. Which house has the Dog?

- (1) House 1
 - (2) House 2
 - (3) House 3
 - (4) House 4
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16. Using the same logic puzzle, which color is in House 3?

- (1) Red
 - (2) Blue
 - (3) Green
 - (4) Yellow
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17. A company's sales data for 3 products (A, B, C) over 2 quarters is:

Quarter	A	B	C
Q1	100	150	200
Q2	120	180	160

What is the percentage increase in sales of product A from Q1 to Q2?

- (1) 15%
 - (2) 20%
 - (3) 25%
 - (4) 30%
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18. Using the same sales data, which product had the lowest sales in Q2?

- (1) A
 - (2) B
 - (3) C
 - (4) A and C (tie)
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19. In a group of 5 people, each shakes hands with every other person exactly once. How many handshakes occur?

- (1) 10
- (2) 12
- (3) 15
- (4) 20

20. A data set shows the number of books read by 4 students:

Student	Books
A	5
B	8
C	12
D	15

What is the average number of books read?

- (1) 8
- (2) 9
- (3) 10
- (4) 11

21. Using the same book data, what is the median number of books read?

- (1) 8
- (2) 9
- (3) 10
- (4) 11

22. In a logical reasoning set, three people (P, Q, R) speak:

- P: I am not the tallest.
- Q: R is taller than P.
- R: Q is the tallest.

Who is the tallest?

- (1) P
- (2) Q
- (3) R
- (4) Cannot be determined

23. A line graph shows temperatures (in °C) over 5 days:

Day	Temperature
Mon	20
Tue	22
Wed	25
Thu	24
Fri	23

What is the average temperature?

- (1) 22
- (2) 23
- (3) 24

(4) 25

24. Using the same temperature data, which day had the highest temperature?

- (1) Mon
- (2) Tue
- (3) Wed
- (4) Thu

25. In a logic puzzle, 4 people (A, B, C, D) have professions (Doctor, Lawyer, Engineer, Teacher). A is not the Doctor. B is the Lawyer. The Teacher is not C. Who is the Engineer?

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

26. Using the same logic puzzle, who is the Doctor?

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

27. A data set shows marks of 5 students: 70, 85, 90, 65, 80. What is the range of marks?

- (1) 20
- (2) 25
- (3) 30
- (4) 35

28. A company has 3 teams (X, Y, Z) with tasks completed:

Team	Tasks
X	40
Y	50
Z	60

If each task takes 2 hours, what is the total time taken by Team Y?

- (1) 80 hours
- (2) 90 hours
- (3) 100 hours
- (4) 110 hours

29. In a logical reasoning set, three statements:

- If A is true, then B is false.
- If B is true, then C is true.
- C is false.

Is A true or false?

- (1) True
 - (2) False
 - (3) Cannot be determined
 - (4) Either true or false
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30. A bar chart shows production (in units) for 3 machines:

Month	M1	M2	M3
Jan	200	150	100
Feb	250	200	150

What is the total production in February?

- (1) 500
 - (2) 550
 - (3) 600
 - (4) 650
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31. Using the same production chart, which machine had the highest production increase from Jan to Feb?

- (1) M1
 - (2) M2
 - (3) M3
 - (4) M1 and M2 (tie)
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32. In a survey, 70% of 100 people like Product X, and 60% like Product Y. If 50% like both, how many like only Product X?

- (1) 10
 - (2) 20
 - (3) 30
 - (4) 40
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