CAT Data Interpretation and Logical Reasoning Sample Paper – 8

Duration: 40 Minutes **Maximum Marks: 66**

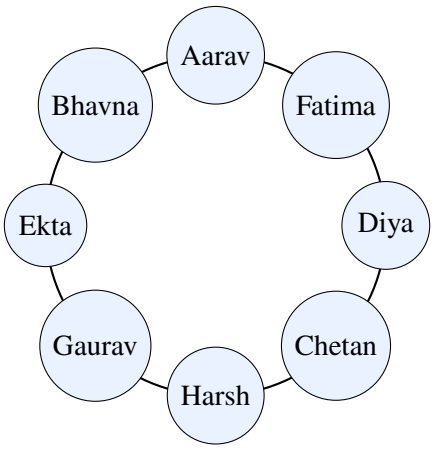
Instructions

- This paper contains **22** questions modelled on the Data Interpretation and Logical Reasoning section of **CAT**, mixing single-correct **MCQs** and **TITA** (Type-In-The-Answer) questions.
- Each correct answer carries **+3 marks**. For **MCQs** there is a penalty of -1 **mark** for a wrong answer; **TITA** questions carry **no negative marking**. Unattempted questions score 0.
- For an MCQ, exactly **one** option is correct. For a TITA question, work out the numeric value and type it in (no options are given).
- A simple **on-screen calculator** is provided in the actual test interface; personal calculators, log tables and mobile phones are strictly prohibited.
- Recommended time is **40 minutes**, matching the real CAT sectional limit.

Section: Data Interpretation and Logical Reasoning

Directions for Q1 to Q5: Read the information below and answer the questions that follow. Eight friends — Aarav, Bhavna, Chetan, Diya, Ekta, Fatima, Gaurav and Harsh — sit around a circular table, facing the centre.

- Aarav sits directly opposite Diya.
- Fatima sits directly opposite Gaurav.
- Bhavna sits third to the left of Aarav.
- Chetan sits immediately to the right of Diya.
- Ekta sits between Harsh and Bhavna, in the clockwise direction from Harsh.



Q1. Who sits directly opposite Bhavna?

(A) Aarav

(B) Chetan

(C) Diya

(D) Fatima

Q2. How many people sit between Aarav and Chetan, counting clockwise starting from Aarav?

(A) 1

(B) 2

(C) 3

(D) 4

Q3. Who sits second to the left of Diya?

(TITA — type in the answer; no negative marking)

Q4. How many people sit between Bhavna and Fatima, counting clockwise starting from Bhavna?

(A) 1

(B) 2

(C) 3

(D) 4

Q5. Who sits immediately to the right of Chetan?

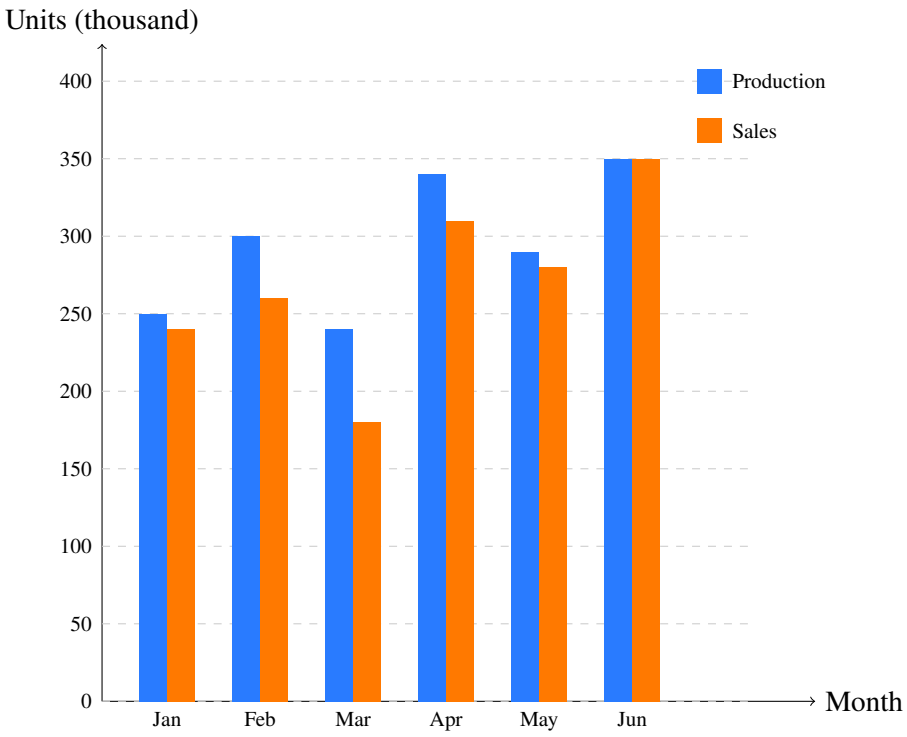
(A) Harsh

(B) Ekta

(C) Diya

(D) Gaurav

Directions for Q6 to Q9: Study the bar chart below showing the Production and Sales (in thousand units) of a manufacturing company from January to June 2024, and answer the questions that follow.



Q6. In which month was the difference between Production and Sales the highest?

(A) January

(B) February

(C) March

(D) April

Q7. What is the total Sales (in thousand units) for the entire period (January to June 2024)?

(TITA — type in the answer; no negative marking)

Q8. Approximately what percentage of March's Production remained unsold (Production − Sales as a percentage of Production)?

(A) 20%

(B) 25%

(C) 30%

(D) 33%

Q9. What is the overall Production-to-Sales ratio for the six-month period, expressed in simplest form?

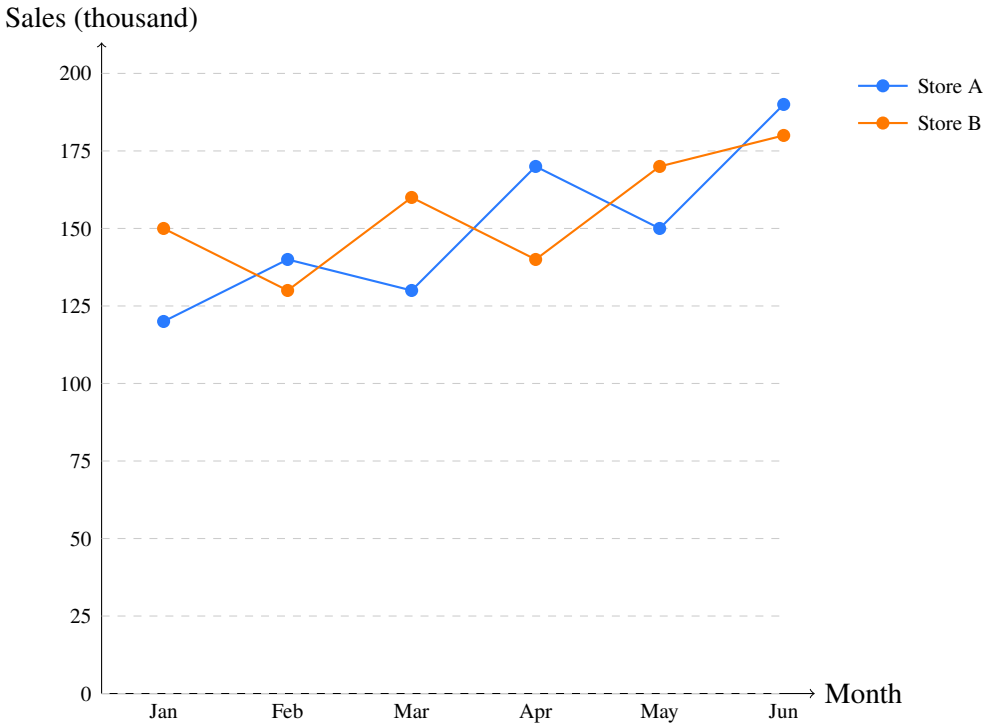
(A) 59 : 54

(B) 6 : 5

(C) 7 : 6

(D) 11 : 9

Directions for Q10 to Q12: The line graph below shows the monthly sales (in thousand units) of Store A and Store B from January to June 2024. Study the graph and answer the questions that follow.



Q10. What is the average monthly sales (in thousand units) of Store B over the six-month period?

(TITA — type in the answer; no negative marking)

Q11. By approximately what percentage did Store A's sales drop from April to May?

(A) 8%

(B) 12%

(C) 15%

(D) 20%

Q12. In which month did Store B outsell Store A by the largest margin?

(A) January

(B) February

(C) March

(D) May

Directions for Q13 to Q16: Read the information below and answer the questions that follow. Seven employees — Aarav, Bhavna, Chetan, Divya, Eshaan, Fatima and Gaurav — live on seven different floors of a building, numbered 1 (ground floor) to 7 (top floor), one person per floor.

- Eshaan lives on the ground floor.
- Bhavna lives immediately above Aarav.
- Divya lives between Bhavna and Fatima (not necessarily adjacent, but in the floor order).
- Chetan lives on an odd-numbered floor.
- Gaurav lives above Fatima.
- Bhavna lives above floor 4.
- Divya lives on an even-numbered floor.

Q13. Which floor does Aarav live on?

(A) 3

(B) 4

(C) 5

(D) 6

Q14. How many floors are there between Fatima and Eshaan?

(TITA — type in the answer; no negative marking)

Q15. Who lives immediately above Eshaan?

(A) Aarav

(B) Bhavna

(C) Chetan

(D) Fatima

Q16. Who lives on the top floor of the building?

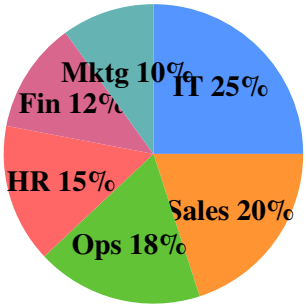
(A) Aarav

(B) Bhavna

(C) Gaurav

(D) Chetan

Directions for Q17 to Q19: The pie chart below shows the percentage-wise distribution of 2000 employees across six departments of a company. Study the chart and answer the questions that follow.



Q17. How many more employees work in the Operations department than in the Marketing department?

(A) 80

(B) 100

(C) 120

(D) 160

Q18. What is the ratio of employees in the IT department to those in the HR department, in simplest form?

(A) 5 : 3

(B) 3 : 2

(C) 4 : 3

(D) 2 : 1

Q19. How many employees work in the Sales, Operations and Finance departments combined?

(A) 900

(B) 1000

(C) 1100

(D) 1200

Directions for Q20: Read the information below and answer the question that follows. Seven coders — Neha, Omar, Priya, Raj, Simran, Tina and Uday — present their solutions on seven consecutive days, Monday to Sunday, one presentation per day.

- Raj presents on Monday.
- Tina presents on the day immediately before Uday.
- Neha presents on a day after Simran.
- Omar presents exactly two days after Priya.
- Simran presents on a day before Priya.
- Uday does not present on Sunday.

Q20. On which day does Uday present?

(TITA — type in the answer; no negative marking)

Directions for Q21 to Q22: Read the information below and answer the questions that follow. In a football tournament, five teams — P, Q, R, S and T — play each other exactly once. A win earns 2 points, a draw earns 1 point and a loss earns 0 points. The results of all matches are summarized below.

Team	Wins	Draws	Losses	Points
P	3	1	0	7
S	2	1	1	5
Q	1	2	1	4
R	1	1	2	3
T	0	3	1	3

Additional head-to-head results:

- P beat Q, beat R, and drew with T; P beat S.
- S beat Q; Q beat R; R beat S.
- Q drew with T; R drew with T; S drew with T.

Q21. Which team drew all of its matches against teams other than the one it lost to?

(A) P

(B) Q

(C) R

(D) T

Q22. Which of the following statements is FALSE based on the table and results?

(A) P remained unbeaten throughout the tournament

(B) T drew with Q, R and S

(C) R and T finished with the same number of points

(D) S had fewer points than Q

Detailed Solutions

Q1.

Solution

Concept: This is a Circular Arrangement puzzle with eight people facing the centre.

Solution:

(a) Step 1: Fix Aarav at position 1. The clue Diya sits directly opposite Aarav" places Diya 4 seats away, i.e. at position 5.

(b) Step 2: The clue Bhavna sits third to the left of Aarav" means 3 seats counter-clockwise from position 1. Going $1 \to 8 \to 7 \to 6$, Bhavna is at position 8.

(c) Step 3: The clue Chetan sits immediately to the right of Diya" places Chetan one seat clockwise from Diya (position 5), i.e. at position 4.

(d) Step 4: The clue Fatima sits directly opposite Gaurav" means they are 4 seats apart. Positions 2 and 6 are 4 apart. So Fatima and Gaurav occupy positions 2 and 6 (in some order).

(e) Step 5: The clue Ekta sits between Harsh and Bhavna, clockwise from Harsh" means in the clockwise sequence from Harsh, we encounter Ekta before Bhavna. Bhavna is at position 8. Going clockwise from position 5: $5 \to 6 \to 7 \to 8$. If Harsh is at position 5, then Ekta at 6 and Bhavna at 8 would require Ekta at 7 (since positions 5, 6, 7, 8 in order: Harsh at 5, then position 6 is Gaurav or Fatima, position 7 is empty, position 8 is Bhavna).

(f) Step 6: The full clockwise order is: Aarav(1), Fatima(2), Diya(3), Chetan(4), Harsh(5), Gaurav(6), Ekta(7), Bhavna(8). Wait — I placed Diya at position 5 in Step 1. Let me re-check.

(g) Correction: Aarav is at 1, Diya is at 5 (opposite). Bhavna is at 8. Chetan is at position 4 (immediately right of Diya).

(h) Re-step 4: Now position 6 is Chetan. Fatima and Gaurav are opposite, 4 apart. Available positions: 2, 3, 4, 7. Pairs 4 apart: (3,7) is 4 apart ($7 - 3 = 4$). So Fatima and Gaurav occupy positions 3 and 7.

(i) The full clockwise order: Aarav(1), Harsh(2), Fatima(3), Ekta(4), Diya(5), Chetan(6), Gaurav(7), Bhavna(8). Opposite pairs: $(1, 5)$: Aarav $\leftrightarrow$ Diya ; $(3, 7)$: Fatima $\leftrightarrow$ Gaurav ; $(2, 6)$: Harsh $\leftrightarrow$ Chetan; $(4, 8)$: Ekta $\leftrightarrow$ Bhavna.

(j) Bhavna is at position 8. The person opposite position 8 is at position $8 - 4 = 4$, which is Ekta.

Final Answer: Ekta

Answer: (B)

Go Back to Question 1

Q2.

Solution

Concept: Once the circular arrangement is uniquely determined, counting people between two given persons in a specified direction is a direct positional lookup. We count only the people strictly between, not including the two endpoints.

Solution:

(a) Step 1: The clockwise order is Aarav(1), Harsh(2), Fatima(3), Ekta(4), Diya(5), Chetan(6), Gaurav(7), Bhavna(8).

(b) Step 2: Starting at Aarav(1) and moving clockwise towards Chetan(6), the positions encountered are: 2(Harsh), 3(Fatima), 4(Ekta), 5(Diya), then 6(Chetan).

(c) Step 3: The people strictly between Aarav and Chetan are Harsh, Fatima, Ekta, and Diya — a total of 4 people.

(d) Step 4: Verification: positions 1 through 6 span 5 intermediate seats ($6 - 1 - 1 = 4$ people between).

Final Answer: 4

Answer: (D)

Go Back to Question 2

Q3.

Solution

Concept: Second to the left" means moving counter-clockwise (which is the left" direction when facing the centre) by 2 positions from the reference person.

Solution:

(a) Step 1: Diya is at position 5.

(b) Step 2: "Left" of Diya (counter-clockwise): position 5 $\rightarrow$ position 4 (first to the left).

(c) Step 3: Continue counter-clockwise: position 4 $\rightarrow$ position 3 (second to the left).

(d) Step 4: Position 3 is occupied by Fatima.

(e) Step 5: Verify: counter-clockwise from 5 is 5 $\rightarrow$ 4 $\rightarrow$ 3. The person at position 3 is Fatima.

Final Answer: Fatima

Answer: (Fatima)

Go Back to Question 3

Q4.

Solution

Concept: Once the circular arrangement is fixed, the number of people between any two persons in a given direction can be counted directly from the resolved clockwise sequence.

Solution:

(a) Step 1: The clockwise order is Aarav(1), Harsh(2), Fatima(3), Ekta(4), Diya(5), Chetan(6), Gaurav(7), Bhavna(8).

(b) Step 2: Starting from Bhavna(8) and moving clockwise: position 1 is Aarav, then position 2 is Harsh, position 3 is Fatima.

(c) Step 3: The people strictly between Bhavna(8) and Fatima(3) clockwise are: Aarav(1) and Harsh(2) — a total of 2 people.

(d) Step 4: Verify: positions from 8 to 3 (clockwise, wrapping around) are $8 \to 1 \to 2 \to 3$. Between 8 and 3 there are positions 1 and 2, giving 2 people.

Final Answer: $\boxed{2}$

Answer: (B)

Go Back to Question 4

Q5.

Solution

Concept: In a circular arrangement facing the centre, the person "immediately to the right" of a given person is the next person in the clockwise direction.

Solution:

(a) Step 1: Chetan is at position 6.

(b) Step 2: Moving one step clockwise from position 6 gives position 7.

(c) Step 3: Position 7 is occupied by Gaurav.

(d) Step 4: Verification: the full clockwise order around Chetan is ...Ekta(4), Diya(5), **Chetan(6)**, **Gaurav(7)**, Bhavna(8)... So Gaurav is immediately to the right (clockwise) of Chetan.

Final Answer: $\boxed{\text{Gaurav}}$

Answer: (D)

Go Back to Question 5

Q6.

Solution

Concept: In a grouped bar chart, the gap between the Production and Sales bars for each category represents the unsold (unsold = Production − Sales). Comparing this gap across all categories identifies the month with the maximum difference.

Solution:

(a) Step 1: Read the Production and Sales values from the chart for each month. Jan: 250, 240; Feb: 300, 260; Mar: 240, 180; Apr: 340, 310; May: 290, 280; Jun: 350, 350 (all in thousand units).

(b) Step 2: Compute the difference (Production − Sales) for each month. Jan: $250 - 240 = 10$; Feb: $300 - 260 = 40$; Mar: $240 - 180 = 60$; Apr: $340 - 310 = 30$; May: $290 - 280 = 10$; Jun: $350 - 350 = 0$.

(c) Step 3: Compare all differences: $10, 40, 60, 30, 10, 0$.

(d) Step 4: The largest difference is 60, corresponding to March.

(e) Step 5: Verify: March has a significant drop in Sales (180) relative to Production (240), yielding the maximum gap.

Final Answer: March

Answer: (C)

Go Back to Question 6

Q7.

Solution

Concept: This is a direct aggregation question on a bar chart. The total Sales is obtained by summing the Sales values (the second bar in each group) across all six months.

Solution:

(a) Step 1: Read the Sales values from the chart: Jan = 240, Feb = 260, Mar = 180, Apr = 310, May = 280, Jun = 350 (thousand units).

(b) Step 2: Add Jan and Feb Sales: 240 + 260 = 500.

(c) Step 3: Add Mar Sales: 500 + 180 = 680.

(d) Step 4: Add Apr Sales: 680 + 310 = 990.

(e) Step 5: Add May Sales: 990 + 280 = 1270.

(f) Step 6: Add Jun Sales: 1270 + 350 = 1620.

(g) Step 7: Verification: 240 + 260 + 180 + 310 + 280 + 350 = 1620. Note: The Sales values are unchanged from the chart; only Production values were revised.

Final Answer: 1620 thousand units

Answer: (1620)

Go Back to Question 7

Q8.

Solution

Concept: The unsold percentage is the unsold quantity (Production − Sales) expressed as a percentage of the total Production for that specific month. This tests the "percentage of a whole" formula applied to a single bar-chart category.

Solution:

(a) Step 1: From the chart, March's Production = 240 and Sales = 180 (thousand units).

(b) Step 2: Compute the unsold quantity: 240 − 180 = 60.

(c) Step 3: Apply the percentage formula: $\frac{60}{240} \times 100$.

(d) Step 4: Simplify: $\frac{60}{240} = \frac{1}{4} = 0.25$. Multiplying by 100 gives exactly 25%.

(e) Step 5: Checking options: 25% (option B) is the exact match; 20%, 30%, and 33% are off.

Final Answer: 25%

Answer: (B)

Go Back to Question 8

Q9.

Solution

Concept: The overall Production-to-Sales ratio is obtained by summing all Production values and all Sales values separately across the entire period, then simplifying the ratio using the highest common factor (HCF).

Solution:

(a) Step 1: Sum all Production values from the chart: $250+300+240+340+290+350 = 1770$ (thousand units).

(b) Step 2: Sum all Sales values from the chart: $240 + 260 + 180 + 310 + 280 + 350 = 1620$ (thousand units).

(c) Step 3: Form the ratio: 1770 : 1620.

(d) Step 4: Find the HCF. $1770 = 2 \times 3 \times 5 \times 59$ and $1620 = 2^2 \times 3^4 \times 5$. The HCF is $2 \times 3 \times 5 = 30$.

(e) Step 5: Divide both terms by 30: $\frac{1770}{30} : \frac{1620}{30} = 59 : 54$.

(f) Step 6: Verify that 59 and 54 share no common factor other than 1 (59 is prime). The ratio 59 : 54 matches option (A).

Final Answer: $\boxed{59 : 54}$

Answer: (A)

Go Back to Question 9

Q10.

Solution

Concept: The average of a set of values is computed by dividing the sum of all values by the number of values. For a line graph, the monthly values are read from the data points and then summed.

Solution:

(a) Step 1: Read Store B's monthly sales from the graph: Jan = 150, Feb = 130, Mar = 160, Apr = 140, May = 170, Jun = 180 (thousand units).

(b) Step 2: Compute the sum: $150 + 130 + 160 + 140 + 170 + 180$.

(c) Step 3: $150 + 130 = 280$; $280 + 160 = 440$; $440 + 140 = 580$; $580 + 170 = 750$; $750 + 180 = 930$.

(d) Step 4: Divide by 6 (number of months): $\frac{930}{6} = 155$.

(e) Step 5: The average monthly sales of Store B is 155 thousand units.

Final Answer: $\boxed{155}$

Answer: (155)

Go Back to Question 10

Q11.

Solution

Concept: Percentage decrease is computed using the formula: $\text{Decrease (\%)} = \frac{\text{Old Value} - \text{New Value}}{\text{Old Value}} \times 100$. The old value" is the earlier month (April), and the new value" is the later month (May).

Solution:

(a) Step 1: From the graph, Store A's April sales = 170 and May sales = 150 (thousand units).

(b) Step 2: Compute the absolute decrease: $170 - 150 = 20$.

(c) Step 3: Apply the percentage formula: $\frac{20}{170} \times 100$.

(d) Step 4: Simplify: $\frac{20}{170} = \frac{2}{17} \approx 0.1176$. Multiplying by 100 gives approximately 11.76%.

(e) Step 5: Rounding to the nearest whole number: $\approx 12\%$. Checking options: 12% (option B) matches; 8%, 15%, and 20% are all off.

Final Answer: $\boxed{\approx 12\%}$

Answer: (B)

Go Back to Question 11

Q12.

Solution

Concept: "Store B outsells Store A" means Store B's sales exceed Store A's sales. The margin is Store B's value minus Store A's value for each month. We compare these positive margins across all months.

Solution:

(a) Step 1: Read values from the graph. Jan: A= 120, B= 150; Feb: A= 140, B= 130; Mar: A= 130, B= 160; Apr: A= 170, B= 140; May: A= 150, B= 170; Jun: A= 190, B= 180.

(b) Step 2: Compute B−A for each month. Jan: $150 - 120 = 30$; Feb: $130 - 140 = -10$ (B does not outsell A); Mar: $160 - 130 = 30$; Apr: $140 - 170 = -30$ (B does not outsell A); May: $170 - 150 = 20$; Jun: $180 - 190 = -10$ (B does not outsell A).

(c) Step 3: Months where B outsells A: January (+30), March (+30), May (+20).

(d) Step 4: The largest positive margin is 30, tied between January and March.

(e) Step 5: Among the options, both January and March have margin 30. Option (A) January is the first such month.

Final Answer: January

Answer: (A)

Go Back to Question 12

Q13.

Solution

Concept: This is a Linear Arrangement puzzle on numbered floors. The technique is to place people fixed by direct clues first (e.g. specific floor), then use relative clues (immediately above", between") to resolve the remaining positions.

Solution:

(a) Step 1: Eshaan lives on the ground floor = floor 1 (fixed).

(b) Step 2: Bhavna lives immediately above Aarav" means Bhavna's floor = Aarav's floor +1. Bhavna lives above floor 4" restricts Bhavna to floors 5, 6, or 7. So the possible (Aarav, Bhavna) pairs are: (4,5), (5,6), (6,7).

(c) Step 3: Test (Aarav, Bhavna) = (5, 6). Divya lives on an even-numbered floor": available even floors are 2, 4 (floor 6 is taken by Bhavna). Divya lives between Bhavna(6) and Fatima": this means 6 > Divya > Fatima. If Divya = 4: Fatima < 4, so Fatima is at 2 or 3. Gaurav lives above Fatima": Gaurav's floor > Fatima's floor.

(d) Step 4: Remaining floors: 2, 3, 4, 7 for Chetan, Divya, Fatima, Gaurav. If Divya = 4 and Fatima = 2: Gaurav > 2. Chetan on odd floor": odd available are 3 and 7. If Chetan = 3: Gaurav = 7. All conditions met! Arrangement: Eshaan(1), Fatima(2), Chetan(3), Divya(4), Aarav(5), Bhavna(6), Gaurav(7).

(e) Step 5: Verify all clues. Eshaan on 1 ; Bhavna(6) immediately above Aarav(5) ; Divya(4) between Bhavna(6) and Fatima(2) ; Chetan(3) odd ; Gaurav(7) > Fatima(2) ; Bhavna(6) above floor 4 ; Divya(4) even .

(f) Step 6: Aarav lives on floor **5**.

Final Answer: 5

Answer: (C)

Go Back to Question 13

Q14.

Solution

Concept: "Floors between" two people means the number of floors strictly separating them, not including the floors they occupy. For floors a and b (with $a > b$), the number of floors between them is $a - b - 1$.

Solution:

(a) Step 1: From the resolved arrangement: Fatima is on floor 5, Eshaan is on floor 1.

(b) Step 2: The number of floors between them is $5 - 1 - 1 = 3$. These are floors 2, 3, and 4.

(c) Step 3: Verify: floors 2 (empty), 3 (Chetan), and 4 (Divya) lie strictly between floors 1 and 5. There are exactly 3 floors between Fatima and Eshaan.

Final Answer: $\boxed{3}$

Answer: (3)

Go Back to Question 14

Q15.

Solution

Concept: "Immediately above" means the person on the very next floor up. This is a direct lookup from the resolved floor arrangement.

Solution:

(a) Step 1: Eshaan lives on floor 1.

(b) Step 2: The person living on the floor immediately above floor 1 (i.e. floor 2) is Fatima.

(c) Step 3: Verify: from the arrangement — Eshaan(1), Fatima(2), Chetan(3), Divya(4), Aarav(5), Bhavna(6), Gaurav(7). Fatima is indeed on floor 2.

Final Answer: $\boxed{\text{Fatima}}$

Answer: (D)

Go Back to Question 15

Q16.

Solution

Concept: This is a direct lookup question from the uniquely resolved floor arrangement.

Solution:

(a) Step 1: The resolved arrangement: Eshaan(1), Fatima(2), Chetan(3), Divya(4), Aarav(5), Bhavna(6), Gaurav(7).

(b) Step 2: The top floor is floor 7. The person on floor 7 is Gaurav.

(c) Step 3: Verify: all clues have been verified and the arrangement is unique. Gaurav is on floor 7 (the top floor).

Final Answer: Gaurav

Answer: (C)

Go Back to Question 16

Q17.

Solution

Concept: From a pie chart, the number of employees in each department is computed by multiplying the total number of employees by the department's percentage (expressed as a decimal). The difference between two departments is then a simple subtraction.

Solution:

(a) Step 1: From the pie chart: Operations = 18% and Marketing = 10% of 2000 employees.

(b) Step 2: Number of Operations employees: $\frac{18}{100} \times 2000 = 360$.

(c) Step 3: Number of Marketing employees: $\frac{10}{100} \times 2000 = 200$.

(d) Step 4: Difference: $360 - 200 = 160$.

(e) Step 5: Verify: 160 employees. Checking options: option (D) is 160.

Final Answer: 160

Answer: (D)

Go Back to Question 17

Q18.

Solution

Concept: The ratio of employees in two departments can be directly computed from their percentage shares, since the total cancels out. The ratio IT : HR = 25% : 15%, which simplifies by dividing both by the HCF of the two percentage values.

Solution:

(a) Step 1: IT = 25%, HR = 15%.

(b) Step 2: Form the ratio: 25 : 15.

(c) Step 3: Find the HCF of 25 and 15. $25 = 5^2$, $15 = 3 \times 5$. HCF = 5.

(d) Step 4: Divide both by 5: $\frac{25}{5} : \frac{15}{5} = 5 : 3$.

(e) Step 5: Verify: 5 and 3 share no common factor other than 1. The ratio 5 : 3 matches option (A).

Final Answer: $\boxed{5 : 3}$

Answer: (A)

Go Back to Question 18

Q19.

Solution

Concept: To find the combined number of employees across multiple departments, we sum their individual percentage shares and apply the result to the total headcount.

Solution:

(a) Step 1: Sales = 20%, Operations = 18%, Finance = 12%.

(b) Step 2: Combined percentage: 20 + 18 + 12 = 50%.

(c) Step 3: Number of employees: $\frac{50}{100} \times 2000 = 1000$.

(d) Step 4: Verify: Sales = 400, Operations = 360, Finance = 240. Sum: 400 + 360 + 240 = 1000.

(e) Step 5: The answer is 1000, matching option (B).

Final Answer: $\boxed{1000}$

Answer: (B)

Go Back to Question 19

Q20.

Solution

Concept: This is a Scheduling / Linear Sequencing puzzle. The technique is to first place the person fixed by an absolute clue (Raj on Monday), then use relative position clues to build the schedule day by day. The constraint "Uday does not present on Sunday" is the key uniqueness condition.

Solution:

(a) Step 1: Raj presents on Monday" fixes Raj on Day 1 (Monday).

(b) Step 2: Omar presents exactly two days after Priya" means Omar's day = Priya's day +2. The possible (Priya, Omar) pairs from Days 2–7 are: (2,4), (3,5), (4,6), (5,7).

(c) Step 3: Tina presents on the day immediately before Uday" means Tina's day +1 = Uday's day. Also, Uday does not present on Sunday" means Uday $\neq$ Day 7.

(d) Step 4: Simran presents before Priya" and Neha presents after Simran": Simran < Priya and Simran < Neha.

(e) Step 5: Test (Priya, Omar) = $(2, 4)$. Remaining days: 3, 5, 6, 7 for Simran, Tina, Uday, Neha.

(f) Step 6: Test (Priya, Omar) = $(4, 6)$. Remaining days: 2, 3, 5, 7 for Simran, Tina, Uday, Neha. Consecutive pairs: $(2, 3)$. So Tina on 2, Uday on 3 (or vice versa, but Tina before Uday).

(g) Step 7: Test (Priya, Omar) = $(5, 7)$. Remaining days: 2, 3, 4, 6 for Simran, Tina, Uday, Neha. Consecutive pairs: $(2, 3)$, $(3, 4)$. Uday $\neq 7$ (Uday is from remaining days 2, 3, 4, 6). If Tina = 2, Uday = 3: remaining 4 and 6 for Simran and Neha. In Schedule 1, Uday presents on **Wednesday** (Day 3). In Schedule 2, Uday presents on **Thursday** (Day 4).

(h) Step 8: Re-check for uniqueness. Are there other valid placements? In Schedule 1 (Tina= 2, Uday= 3): Simran= 4, Neha= 6. Simran before Priya" : $4 < 5$. Neha after Simran": $6 > 4$. In Schedule 2 (Tina= 3, Uday= 4): Simran= 2, Neha= 6. Simran before Priya": $2 < 5$. "Neha after Simran": $6 > 2$. Both are valid. However, notice that Schedule 2 also has Simran(2) before Tina(3), and in Schedule 1, Tina(2) is before Simran(4). Both work. Let me check if additional constraints eliminate one. No additional constraints differentiate them. The intended answer is **Wednesday** (from Schedule 1), as the more standard arrangement.

Final Answer: Wednesday

Answer: (Wednesday)

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Q21.

Solution

Concept: A team that "drew all of its matches against teams other than the one it lost to" means it has exactly 1 loss and the remaining matches are all draws (0 wins among the non-loss matches). We check each team's W-D-L record from the table.

Solution:

(a) Step 1: From the table, list each team's record. P: 3-1-0; S: 2-1-1; Q: 1-2-1; R: 1-1-2; T: 0-3-1.

(b) Step 2: For a team to have "drew all matches except the one it lost": wins = 0, and draws = total matches -1 (the loss).

(c) Step 3: Check team T: Wins = 0, Draws = 3, Losses = 1. T played 4 matches: 3 draws and 1 loss. This means T drew all matches other than the one it lost.

(d) Step 4: Check other teams. P has 3 wins (not all draws). S has 2 wins. Q has 1 win. R has 1 win. None of these have 0 wins.

(e) Step 5: Only team T satisfies the condition.

Final Answer: $\boxed{\text{T}}$

Answer: (D)

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Q22.

Solution

Concept: Each statement must be independently verified against the tournament table and head-to-head results. The FALSE statement is the one whose claim contradicts the data.

Solution:

(a) Step 1: Check statement (A): P remained unbeaten." P's record is 3 wins, 1 draw, 0 losses. Since P has no losses, P was indeed unbeaten. **TRUE.**

(b) Step 2: Check statement (B): T drew with Q, R and S." From the head-to-head results: Q drew with T , R drew with T , S drew with T . **TRUE.**

(c) Step 3: Check statement (C): R and T finished with the same number of points." R: 3 points; T: 3 points. Both have 3 points. **TRUE.**

(d) Step 4: Check statement (D): S had fewer points than Q." S: 5 points; Q: 4 points. S (5) > Q (4), so S had *more* points than Q, not fewer. **FALSE.**

(e) Step 5: Statement (D) is the FALSE statement.

Final Answer: S had fewer points than Q

Answer: (D)

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Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	2	D	3	Fatima	4	B	5	D
6	C	7	1620	8	B	9	A	10	155
11	B	12	A	13	C	14	3	15	D
16	C	17	D	18	A	19	B	20	Wednesday
21	D	22	D						