CLAT Quantitative Techniques

Sample Paper – 5

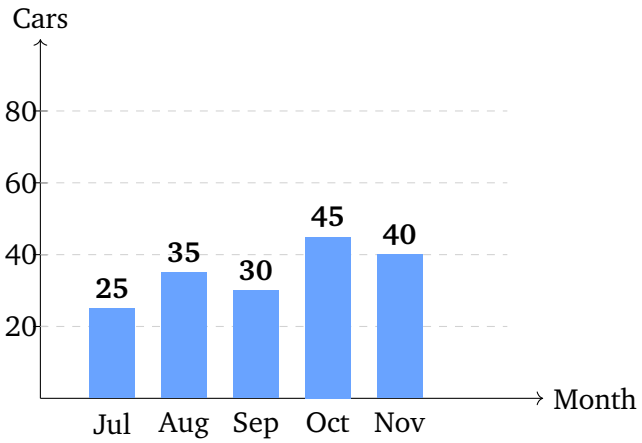
Duration: 12 Minutes **Maximum Marks: 12**

Instructions

- This paper contains **12** Multiple Choice Questions (Single Correct Answer), modelled on the Quantitative Techniques section of **CLAT** (Common Law Admission Test).
- Each correct answer carries **+1 mark**. There is **a negative marking of 0.25 marks** for every incorrect answer; unattempted questions carry no penalty.
- The paper has **three data sets**, each giving information as a graph, table, or short passage, followed by **four** questions. Derive the figures from the set and apply elementary mathematics (up to **Class 10** level) to answer.
- CLAT is an offline pen-and-paper (OMR) test with no sectional time limit; attempt this practice paper in one timed sitting of about **12 minutes**.
- Use of calculators, mobile phones, and other electronic gadgets is strictly prohibited; do the arithmetic by hand.

Data Set I

Directions (Q1–Q4): The bar chart below shows the number of cars sold by a dealer over five months. Study it and answer the questions that follow.



Q1. What is the total number of cars sold by the dealer over the five months?

(A) 165

(B) 175

(C) 185

(D) 170

Q2. What is the average number of cars sold per month over the five months?

(A) 30

(B) 35

(C) 40

(D) 45

Q3. The number of cars sold in October is what percent more than the number sold in September?

(A) 40%

(B) 60%

(C) 45%

(D) 50%

Q4. What is the ratio of the cars sold in September to the cars sold in November?

(A) 4 : 3

(B) 2 : 3

(C) 3 : 4

(D) 1 : 2

Data Set II

Directions (Q5–Q8): The table below shows the population (men and women) of four villages. Study it and answer the questions that follow.

Village	Men	Women	Total
Rampur	300	200	500
Sitapur	250	350	600
Tarapur	400	300	700
Udaipur	350	250	600

Q5. What is the total population of the four villages taken together?

(A) 2200

(B) 2300

(C) 2350

(D) 2400

Q6. Which village has the largest total population?

(A) Rampur

(B) Udaipur

(C) Tarapur

(D) Sitapur

Q7. What is the ratio of the total number of men to the total number of women across the four villages?

(A) 13 : 11

(B) 11 : 13

(C) 1 : 1

(D) 6 : 5

Q8. What is the average population per village?

(A) 550

(B) 580

(C) 620

(D) 600

Data Set III

Directions (Q9–Q12): Read the following information carefully and answer the questions that follow.

A student named Arjun gets a monthly allowance of **Rs 6000**. In one month he spent **Rs 2400 on food** and **Rs 1800 on rent**. He also bought a book marked at **Rs 500**, on which the shop gave him a **discount of 12%**. Over the last **four months**, his total savings amounted to **Rs 3200**.

Q9. How much discount did Arjun get on the book marked at Rs 500?

(A) Rs 60

(B) Rs 50

(C) Rs 75

(D) Rs 55

Q10. What is the ratio of his food expense to his rent expense?

(A) 3 : 4

(B) 3 : 2

(C) 4 : 3

(D) 5 : 4

Q11. His food expense is what percent of his monthly allowance?

(A) 40%

(B) 30%

(C) 45%

(D) 50%

Q12. What were his average monthly savings over the last four months?

(A) Rs 750

(B) Rs 800

(C) Rs 850

(D) Rs 900

Detailed Solutions

Q1.

Solution

Concept – reading a bar chart and adding values: Read the height of each bar and add them.

Step 1 – list the monthly sales: Jul $= 25$, Aug $= 35$, Sep $= 30$, Oct $= 45$, Nov $= 40$.

Step 2 – add them: $25 + 35 = 60$. $60 + 30 = 90$. $90 + 45 = 135$. $135 + 40 = 175$.

Why the other options are wrong:

- Options A, C, D: 165, 185 and 170 each drop or mis-add one bar; the correct sum is 175.

Final Answer: Total $= 175$ cars $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q1

Q2.

Solution

Concept – average: Average $= \dfrac{\text{total}}{\text{number of items}}$.

Step 1 – total sales: From Q1, the total over the five months $= 175$ cars.

Step 2 – divide by the number of months: Average $= \dfrac{175}{5} = 35$ cars.

Why the other options are wrong:

- Options A, C, D: 30, 40 and 45 do not equal $175 \div 5$; only 35 does.

Final Answer: Average $= 35$ cars per month $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q2

Q3.

Solution

Concept – percentage increase: Percent increase $= \dfrac{\text{increase}}{\text{original}} \times 100$, with September as the original.

Step 1 – find the increase: October $= 45$, September $= 30$, so the increase $= 45 - 30 = 15$.

Step 2 – divide by the September value and convert to percent: $\dfrac{15}{30} \times 100 = 50\%$.

Why the other options are wrong:

- Option A (40%): uses a wrong base.
- Option B (60%): over-counts the increase.
- Option C (45%): that is the raw October figure, not a percentage.

Final Answer: Increase $= 50\% \Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q3

Q4.

Solution

Concept – ratio: Write the two quantities and reduce to lowest terms.

Step 1 – write the ratio: Sep $= 30$, Nov $= 40$, so the ratio is $30 : 40$.

Step 2 – reduce: Divide both by 10: $30 : 40 = 3 : 4$.

Why the other options are wrong:

- Option A (4:3): reverses the order.
- Options B, D: 2:3 and 1:2 do not match $30 : 40$.

Final Answer: Ratio $= 3 : 4 \Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q4

Q5.

Solution

Concept – reading a table total: Add the "Total" column, or add all men and all women.

Step 1 – add the village totals: $500 + 600 + 700 + 600$.

Step 2 – compute: $500 + 600 = 1100$; $1100 + 700 = 1800$; $1800 + 600 = 2400$.

Why the other options are wrong:

- Options A, B, C: 2200, 2300 and 2350 each miss part of a village; the four totals sum to 2400.

Final Answer: Total $= 2400$ people $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q5

Q6.

Solution

Concept – comparing a column: Compare the "Total" entries and pick the largest.

Step 1 – list the totals: Rampur $= 500$, Sitapur $= 600$, Tarapur $= 700$, Udaipur $= 600$.

Step 2 – pick the highest: The largest is 700, which is Tarapur.

Why the other options are wrong:

- Option A (Rampur $= 500$), Option B (Udaipur $= 600$), Option D (Sitapur $= 600$): all are fewer than 700.

Final Answer: Tarapur has the largest population $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q6

Q7.

Solution

Concept – ratio of two totals: Add all men, add all women, then reduce.

Step 1 – total men and women: Men $= 300 + 250 + 400 + 350 = 1300$. Women $= 200 + 350 + 300 + 250 = 1100$.

Step 2 – form and reduce the ratio: $1300 : 1100$; divide both by 100 to get $13 : 11$.

Why the other options are wrong:

- Option B (11:13): reverses the order.
- Options C, D: 1:1 and 6:5 do not match $1300 : 1100$.

Final Answer: Men : Women $= 13 : 11 \Rightarrow$ A

Answer: (A) Go Back to Q7

Q8.

Solution

Concept – average: Average per village $= \dfrac{\text{total population}}{\text{number of villages}}$.

Step 1 – use the total: Total $= 2400$ people (from Q5) across 4 villages.

Step 2 – divide: $\dfrac{2400}{4} = 600$.

Why the other options are wrong:

- Options A, B, C: 550, 580 and 620 do not equal $2400 \div 4$; only 600 does.

Final Answer: Average $= 600$ people per village $\Rightarrow$ D

Answer: (D) Go Back to Q8

Q9.

Solution

Concept – discount: Discount $= \dfrac{\text{discount percent}}{100} \times$ marked price.

Step 1 – identify the values: Marked price $= 500$, discount percent $= 12$.

Step 2 – compute: $\dfrac{12}{100} \times 500 = \dfrac{6000}{100} = 60$.

Why the other options are wrong:

- Options B, C, D: Rs 50, Rs 75 and Rs 55 do not equal 12% of 500; the discount is exactly Rs 60.

Final Answer: Discount $=$ Rs 60 $\Rightarrow$ A

Answer: (A) Go Back to Q9

Q10.

Solution

Concept – ratio: Write the two amounts and reduce to lowest terms.

Step 1 – write the ratio: Food $= 2400$, rent $= 1800$, so the ratio is $2400 : 1800$.

Step 2 – reduce: Divide both by 600: $2400 : 1800 = 4 : 3$.

Why the other options are wrong:

- Option A (3:4): reverses the order.
- Options B, D: 3:2 and 5:4 do not match $2400 : 1800$.

Final Answer: Food : Rent $= 4 : 3 \Rightarrow$ C

Answer: (C) Go Back to Q10

Q11.

Solution

Concept – percentage of a total: Percent $= \dfrac{\text{part}}{\text{whole}} \times 100$.

Step 1 – identify part and whole: Food expense $= 2400$, allowance $= 6000$.

Step 2 – compute: $\dfrac{2400}{6000} \times 100 = 40\%$.

Why the other options are wrong:

- Options B, C, D: 30%, 45% and 50% do not equal $2400/6000 \times 100$; the food share is 40%.

Final Answer: Food $= 40\%$ of the allowance $\Rightarrow$ A

Answer: (A) Go Back to Q11

Q12.

Solution

Concept – average: Average $= \dfrac{\text{total}}{\text{number of items}}$.

Step 1 – identify the values: Total savings $= 3200$ over 4 months.

Step 2 – divide: $\dfrac{3200}{4} = 800$.

Why the other options are wrong:

- Options A, C, D: Rs 750, Rs 850 and Rs 900 do not equal $3200 \div 4$; only Rs 800 does.

Final Answer: Average savings = Rs 800 per month $\Rightarrow$ B

Answer: (B) Go Back to Q12

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	2	B	3	D	4	C	5	D
6	C	7	A	8	D	9	A	10	C
11	A	12	B						