CLAT Quantitative Techniques

Sample Paper – 9

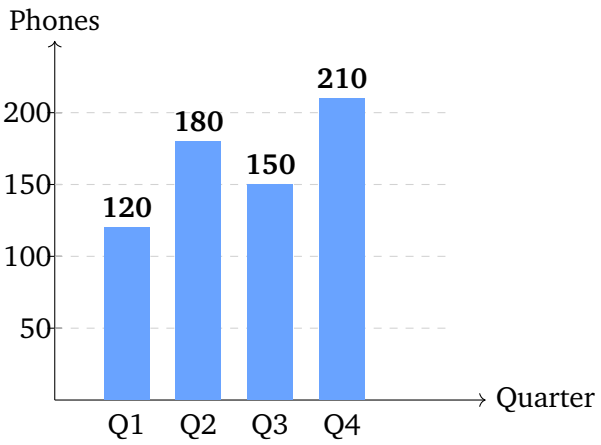
Duration: 12 Minutes **Maximum Marks: 12**

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 mobile phones sold by a shop over four quarters (Q1–Q4) of a year. Study it and answer the questions that follow.



Q1. What is the total number of mobile phones sold by the shop over the four quarters?

(A) 640

(B) 680

(C) 620

(D) 660

Q2. What is the average number of phones sold per quarter over the four quarters?

(A) 165

(B) 160

(C) 170

(D) 155

Q3. The number of phones sold in Q2 is what percent more than the number sold in Q1?

(A) 40%

(B) 60%

(C) 50%

(D) 45%

Q4. What is the ratio of the phones sold in Q1 to the phones sold in Q4?

(A) 7 : 4

(B) 5 : 6

(C) 4 : 7

(D) 3 : 5

Data Set II

Directions (Q5–Q8): The table below shows the number of matches won and lost by four teams in a league season. Study it and answer the questions that follow.

Team	Won	Lost	Played
Titans	12	8	20
Warriors	15	5	20
Kings	9	11	20
Strikers	14	6	20

Q5. What is the total number of matches won by the four teams taken together?

(A) 48

(B) 52

(C) 45

(D) 50

Q6. Which team won the greatest number of matches?

(A) Titans

(B) Warriors

(C) Kings

(D) Strikers

Q7. What is the ratio of matches won to matches lost by Titans?

(A) 3 : 2

(B) 2 : 3

(C) 3 : 4

(D) 4 : 3

Q8. What is the average number of matches won per team?

(A) 12

(B) 13

(C) 12.5

(D) 11.5

Data Set III

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

A tailor named Imran runs a stitching shop. He marked a coat at **Rs 1200** and sold it after a discount, receiving **Rs 900**. Out of **40 shirts** he stitched last week, **8** were returned for alterations. Over four days he stitched **10, 14, 12 and 8** garments. He also deposited **Rs 6000** in a bank that pays **simple interest at 5% per annum** for **2 years**.

Q9. What percent discount did Imran give on the marked price of the coat?

(A) 20%

(B) 30%

(C) 15%

(D) 25%

Q10. What percent of the shirts he stitched last week were returned for alterations?

(A) 20%

(B) 25%

(C) 15%

(D) 10%

Q11. What is the average number of garments he stitched per day over the four days?

(A) 10

(B) 11

(C) 12

(D) 13

Q12. How much simple interest will he earn on his deposit at the end of two years?

(A) Rs 500

(B) Rs 600

(C) Rs 700

(D) Rs 800

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 quarterly sales: Q1 $= 120$, Q2 $= 180$, Q3 $= 150$, Q4 $= 210$.

Step 2 – add them: $120 + 180 = 300$. $300 + 150 = 450$. $450 + 210 = 660$.

Why the other options are wrong:

- Options A, B, C: 640, 680 and 620 each drop or mis-add one bar; the correct sum is 660.

Final Answer: Total $= 660$ phones $\Rightarrow \boxed{\text{D}}$

Answer: (D) 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 four quarters $= 660$ phones.

Step 2 – divide by the number of quarters: Average $= \dfrac{660}{4} = 165$ phones.

Why the other options are wrong:

- Options B, C, D: 160, 170 and 155 do not equal $660 \div 4$; only 165 does.

Final Answer: Average $= 165$ phones per quarter $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q2

Q3.

Solution

Concept – percentage increase: Percent increase $= \dfrac{\text{increase}}{\text{original}} \times 100$, with Q1 as the original.

Step 1 – find the increase: Q2 $= 180$, Q1 $= 120$, so the increase $= 180 - 120 = 60$.

Step 2 – divide by the Q1 value and convert to percent: $\frac{60}{120} \times 100 = 50\%$.

Why the other options are wrong:

- Option A (40%): understates the increase.
- Option B (60%): that is the raw increase in phones, not a percentage.
- Option D (45%): does not match $60/120 \times 100$.

Final Answer: Increase $= 50\% \Rightarrow$ C

Answer: (C) Go Back to Q3

Q4.

Solution

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

Step 1 – write the ratio: Q1 $= 120$, Q4 $= 210$, so the ratio is $120 : 210$.

Step 2 – reduce: Divide both by 30: $120 : 210 = 4 : 7$.

Why the other options are wrong:

- Option A (7:4): reverses the order.
- Options B, D: 5:6 and 3:5 do not match $120 : 210$.

Final Answer: Ratio $= 4 : 7 \Rightarrow$ C

Answer: (C) Go Back to Q4

Q5.

Solution

Concept – reading a table column total: Add the "Won" column across all teams.

Step 1 – list the wins: Titans $= 12$, Warriors $= 15$, Kings $= 9$, Strikers $= 14$.

Step 2 – add them: $12 + 15 = 27$; $27 + 9 = 36$; $36 + 14 = 50$.

Why the other options are wrong:

- Options A, B, C: 48, 52 and 45 each miss part of a team's wins; the four win-counts sum to 50.

Final Answer: Total won $= 50$ matches $\Rightarrow$ D

Answer: (D) Go Back to Q5

Q6.

Solution

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

Step 1 – list the wins: Titans $= 12$, Warriors $= 15$, Kings $= 9$, Strikers $= 14$.

Step 2 – pick the highest: The largest is 15, which belongs to Warriors.

Why the other options are wrong:

- Option A (Titans $= 12$), Option C (Kings $= 9$), Option D (Strikers $= 14$): all are fewer than 15.

Final Answer: Warriors won the most matches $\Rightarrow$ B

Answer: (B) Go Back to Q6

Q7.

Solution

Concept – ratio of two entries: Write won : lost for Titans and reduce.

Step 1 – read the values: Titans won $= 12$, lost $= 8$, so the ratio is $12 : 8$.

Step 2 – reduce: Divide both by 4: $12 : 8 = 3 : 2$.

Why the other options are wrong:

- Option B (2:3): reverses the order.
- Options C, D: 3:4 and 4:3 do not match $12 : 8$.

Final Answer: Won : Lost $= 3 : 2 \Rightarrow$ A

Answer: (A) Go Back to Q7

Q8.

Solution

Concept – average: Average wins per team $= \dfrac{\text{total wins}}{\text{number of teams}}$.

Step 1 – use the total: Total wins $= 50$ (from Q5) across 4 teams.

Step 2 – divide: $\dfrac{50}{4} = 12.5$.

Why the other options are wrong:

- Options A, B, D: 12, 13 and 11.5 do not equal $50 \div 4$; only 12.5 does.

Final Answer: Average $= 12.5$ wins per team $\Rightarrow$ C

Answer: (C) Go Back to Q8

Q9.

Solution

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

Step 1 – find the discount amount: $\text{Discount} = 1200 - 900 = 300.$

Step 2 – divide by the marked price and convert: $\dfrac{300}{1200} \times 100 = 25\%.$

Why the other options are wrong:

- Options A, B, C: 20%, 30% and 15% do not equal $300/1200 \times 100$; the discount is exactly 25%.

Final Answer: Discount $= 25\% \Rightarrow$ D

Answer: (D) Go Back to Q9

Q10.

Solution

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

Step 1 – identify part and whole: Returned $= 8$, total stitched $= 40$.

Step 2 – compute: $\dfrac{8}{40} \times 100 = 20\%.$

Why the other options are wrong:

- Options B, C, D: 25%, 15% and 10% do not equal $8/40 \times 100$; the returned share is 20%.

Final Answer: Returned $= 20\% \Rightarrow$ A

Answer: (A) Go Back to Q10

Q11.

Solution

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

Step 1 – add the daily counts: $10 + 14 = 24$; $24 + 12 = 36$; $36 + 8 = 44$.

Step 2 – divide by the number of days: $\dfrac{44}{4} = 11$.

Why the other options are wrong:

- Options A, C, D: 10, 12 and 13 do not equal $44 \div 4$; only 11 does.

Final Answer: Average $= 11$ garments per day $\Rightarrow$ B

Answer: (B) Go Back to Q11

Q12.

Solution

Concept – simple interest: SI $= \dfrac{P \times R \times T}{100}$.

Step 1 – put in the values: $P = 6000$, $R = 5$, $T = 2$.

Step 2 – compute: $\dfrac{6000 \times 5 \times 2}{100} = \dfrac{60000}{100} = 600$.

Why the other options are wrong:

- Option A (Rs 500): does not match the formula.
- Option C (Rs 700), Option D (Rs 800): overstate the interest; the correct value is Rs 600.

Final Answer: Interest $=$ Rs 600 $\Rightarrow$ B

Answer: (B) Go Back to Q12

Answer Key

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