CLAT Quantitative Techniques

Sample Paper – 2

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 table below shows the monthly production (in units) of four products made by a factory in January and February. Study it and answer the questions that follow.

Product	January	February
Alpha	150	180
Beta	250	200
Gamma	200	250
Delta	100	170

Q1. What is the total production of all four products in January?

(A) 650

(B) 720

(C) 700

(D) 680

Q2. What is the average February production per product?

(A) 180

(B) 220

(C) 240

(D) 200

Q3. The production of Gamma in February is what percent more than its production in January?

(A) 20%

(B) 30%

(C) 25%

(D) 50%

Q4. What is the ratio of Alpha's January production to Beta's January production?

(A) 5 : 3

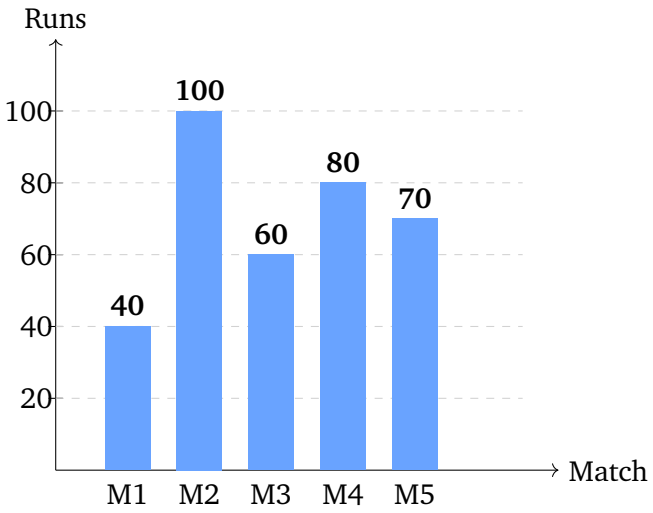
(B) 2 : 3

(C) 3 : 5

(D) 3 : 4

Data Set II

Directions (Q5–Q8): The bar chart below shows the number of runs scored by a cricket batsman in five matches. Study it and answer the questions that follow.



Q5. What is the total number of runs scored by the batsman over the five matches?

(A) 340

(B) 350

(C) 360

(D) 330

Q6. What is the average number of runs scored per match over the five matches?

(A) 70

(B) 65

(C) 75

(D) 60

Q7. The runs scored in Match 1 are what percent less than the runs scored in Match 4?

(A) 40%

(B) 50%

(C) 25%

(D) 60%

Q8. What is the ratio of the runs scored in Match 1 to the runs scored in Match 3?

(A) 2 : 3

(B) 3 : 2

(C) 2 : 1

(D) 1 : 2

Data Set III

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

A shopkeeper named Meena runs a garment store. She marks a shirt at **Rs 800** and sells it at a **discount of 25%**. Over five days she sold **20, 25, 30, 15 and 10** shirts respectively. During a sale, out of **250 customers** who visited her store, **50** bought goods on credit. In her stock she keeps **60 shirts** and **90 trousers**.

Q9. At what price does Meena sell the shirt after the discount?

(A) Rs 600

(B) Rs 640

(C) Rs 700

(D) Rs 550

Q10. Over the five days, what is the average number of shirts she sold per day?

(A) 25

(B) 18

(C) 22

(D) 20

Q11. What percent of her customers during the sale bought goods on credit?

(A) 25%

(B) 20%

(C) 15%

(D) 10%

Q12. What is the ratio of the number of shirts to the number of trousers in her stock?

(A) 3 : 2

(B) 1 : 2

(C) 3 : 4

(D) 2 : 3

Detailed Solutions

Q1.

Solution

Concept – reading a table column and adding values: Read the January entry of each product and add them.

Step 1 – list the January production: Alpha $= 150$, Beta $= 250$, Gamma $= 200$, Delta $= 100$.

Step 2 – add them: $150 + 250 = 400$. $400 + 200 = 600$. $600 + 100 = 700$.

Why the other options are wrong:

- Options A, B, D: 650, 720 and 680 each drop or mis-add one product; the correct sum is 700.

Final Answer: Total $= 700$ units $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q1

Q2.

Solution

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

Step 1 – add the February production: $180 + 200 + 250 + 170$. $180 + 200 = 380$; $380 + 250 = 630$; $630 + 170 = 800$.

Step 2 – divide by the number of products: Average $= \dfrac{800}{4} = 200$ units.

Why the other options are wrong:

- Options A, B, C: 180, 220 and 240 do not equal $800 \div 4$; only 200 does.

Final Answer: Average $= 200$ units $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q2

Q3.

Solution

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

Step 1 – find the increase: February $= 250$, January $= 200$, so the increase $= 250 - 200 = 50$.

Step 2 – divide by the January value and convert to percent: $\dfrac{50}{200} \times 100 = 25\%$.

Why the other options are wrong:

- Option A (20%): divides by February (250) instead of the original January (200).
- Option B (30%): does not match the computed ratio.
- Option D (50%): that is the raw increase in units, not a percentage.

Final Answer: Increase $= 25\% \Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q3

Q4.

Solution

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

Step 1 – write the ratio: Alpha (Jan) $= 150$, Beta (Jan) $= 250$, so the ratio is $150 : 250$.

Step 2 – reduce: Divide both by 50: $150 : 250 = 3 : 5$.

Why the other options are wrong:

- Option A (5:3): reverses the order.
- Options B, D: 2:3 and 3:4 do not match $150 : 250$.

Final Answer: Ratio $= 3 : 5 \Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q4

Q5.

Solution

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

Step 1 – list the runs per match: M1 $= 40$, M2 $= 100$, M3 $= 60$, M4 $= 80$, M5 $= 70$.

Step 2 – add them: $40+100 = 140$. $140+60 = 200$. $200+80 = 280$. $280+70 = 350$.

Why the other options are wrong:

- Options A, C, D: 340, 360 and 330 each drop or mis-add one bar; the correct sum is 350.

Final Answer: Total $= 350$ runs $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q5

Q6.

Solution

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

Step 1 – total runs: From Q5, the total over the five matches $= 350$ runs.

Step 2 – divide by the number of matches: Average $= \dfrac{350}{5} = 70$ runs.

Why the other options are wrong:

- Options B, C, D: 65, 75 and 60 do not equal $350 \div 5$; only 70 does.

Final Answer: Average $= 70$ runs per match $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q6

Q7.

Solution

Concept – percentage decrease: Percent decrease $= \dfrac{\text{decrease}}{\text{original}} \times 100$, with Match 4 as the original.

Step 1 – find the decrease: Match 4 $= 80$, Match 1 $= 40$, so the decrease $= 80 - 40 = 40$.

Step 2 – divide by the Match 4 value and convert to percent: $\frac{40}{80} \times 100 = 50\%$.

Why the other options are wrong:

- Option A (40%): that is the raw difference in runs, not a percentage.
- Option C (25%): divides by a wrong base.
- Option D (60%): does not match the computed ratio.

Final Answer: Decrease $= 50\% \Rightarrow$ B

Answer: (B) Go Back to Q7

Q8.

Solution

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

Step 1 – write the ratio: Match $1 = 40$, Match $3 = 60$, so the ratio is $40 : 60$.

Step 2 – reduce: Divide both by 20: $40 : 60 = 2 : 3$.

Why the other options are wrong:

- Option B (3:2): reverses the order.
- Options C, D: 2:1 and 1:2 do not match $40 : 60$.

Final Answer: Ratio $= 2 : 3 \Rightarrow$ A

Answer: (A) Go Back to Q8

Q9.

Solution

Concept – discount: Selling price = marked price − discount, where discount = discount% of marked price.

Step 1 – find the discount amount: Discount $= 25\%$ of $800 = \frac{25}{100} \times 800 = 200$.

Step 2 – subtract from the marked price: Selling price $= 800 - 200 = 600$.

Why the other options are wrong:

- Options B, C, D: Rs 640, Rs 700 and Rs 550 do not equal $800 - 200$; the correct price is Rs 600.

Final Answer: Selling price = Rs 600 $\Rightarrow$ A

Answer: (A) Go Back to Q9

Q10.

Solution

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

Step 1 – add the daily sales: $20 + 25 + 30 + 15 + 10$. $20 + 25 = 45$; $45 + 30 = 75$; $75 + 15 = 90$; $90 + 10 = 100$.

Step 2 – divide by the number of days: Average $= \dfrac{100}{5} = 20$ shirts.

Why the other options are wrong:

- Options A, B, C: 25, 18 and 22 do not equal $100 \div 5$; only 20 does.

Final Answer: Average $= 20$ shirts per day $\Rightarrow \boxed{\text{D}}$

Answer: (D) 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: Bought on credit $= 50$, total customers $= 250$.

Step 2 – compute: $\dfrac{50}{250} \times 100 = 20\%$.

Why the other options are wrong:

- Options A, C, D: 25%, 15% and 10% do not equal $50/250 \times 100$; the credit share is 20%.

Final Answer: Credit customers $= 20\% \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q11

Q12.

Solution

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

Step 1 – write the ratio: Shirts $= 60$, trousers $= 90$, so the ratio is $60 : 90$.

Step 2 – reduce: Divide both by 30: $60 : 90 = 2 : 3$.

Why the other options are wrong:

- Option A (3:2): reverses the order.
- Options B, C: 1:2 and 3:4 do not match $60 : 90$.

Final Answer: Ratio $= 2 : 3 \Rightarrow$ D

Answer: (D) Go Back to Q12

Answer Key

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