

SYLHET CADET COLLEGE
Year-Final EXAMINATION - 2025
CLASS: XI
STATISTICS (CREATIVE)
FIRST PAPER
[According to the Syllabus of 2023]
TIME – 2 hours & 25 minutes
FULL MARKS – 50

Ques Setter	
Moderator	
VP	

Subject Code:

1	3	0
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[**N.B.** – The figures of the right margin indicate full marks. Read the stems carefully and answer the associated questions. Answer any **FIVE** questions taking at least two questions from each group]

Group - A

1. **Income and Expenditure (in thousand BDT) data for 8 individuals in a housing society are given below:**

Income (x)	20	30	25	10	35	40	28	22
Expenditure (y)	15	27	18	5	30	33	25	20

- (a) Using the data, prove $\sum_{i=1}^{10} \sum_{j=1}^{10} x_i y_j = (\sum_{i=1}^{10} x_i)(\sum_{j=1}^{10} y_j)$ 3
- (b) Find the value of $\sum_{i=1}^{10} (x_i - y_i)^2$ using both direct evaluation and by separating the summation terms.4
2. **While driving from city A to city B, a car got 22 miles per gallon and while returning on the same road, the car got 30 miles per gallon.**
- (a) How many measures of centrtal tendencies are there?1
- (b) Which route takes more amount of fuel per mile?2
- (c) If the total distance for the round trip was 300 miles, how many gallons of fuel were used for the entire journey?3
- (d) Find the car’s average gas mileage for the entire trip, in miles per gallon.4

Group - B

“Quote”
– Author