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III Semester B.Com. (Regular) (I&AS) Degree Examination, March/April - 2024

**COMMERCE**  
**BUSINESS STATISTICS**  
(NEP Scheme 2022-23 Onwards)

Paper : 3.2



Time : 2½ Hours

Maximum Marks : 60

*Instructions to Candidates:*

**Answers should be written only in English.**

**SECTION - A**

Answer any FIVE sub-questions from the following. Each question carries 2 marks.

(5×2=10)

- I. a) State any two features of statistics.
- b) State any two uses of Range.
- c) What is tabulation?
- d) If variance = 36,  $\sum X = 150$ ,  $N = 10$ , Find C. V.
- e) For the distribution, Mean = 20.2, Median = 22.1 find the mode.
- f) If  $b_{xy} = 0.825$ ,  $b_{yx} = 0.84$ , calculate 'r'
- g) What is meant by perfect correlation?

**SECTION - B**

Answer any FOUR questions from this section. Each question carries 5 marks.

(4×5=20)

2. Calculate the Mean from the following Data:

Variable	28-30	30-32	32-34	34-36	36-40	40-44
Frequency	10	12	16	14	10	8

3. In a sample study on readership of Kannada Newspaper in two cities, the following was observed:

**City A:**

50% of the persons were females

30% were readers of newspaper

18% were female readers of the news paper

**City B:**

55% of the persons were males

25% were readers of newspaper

16% were males readers of the news paper

**Tabulate the above data.**

4. Find the Quarter Deviation and its coefficient from the following data:-

Sl. No.	1	2	3	4	5	6	7	8	9
Marks	25	30	37	32	42	48	61	54	72

5. You are given below, the information about ages of brothers and sisters in a community:

	Brothers (X)	Sisters (Y)
Mean age	25	22
Standard deviation	4	5
Correlation coefficient		+0.66

**You are required to:**

- a) Obtain the two regressions equations of X on Y and Y on X  
 b) Find the expected age of sister when brother's age is 32.
6. Calculate co-efficient of variation and state which batsman is consistent in scoring runs. Who among the two is a better run-getter?

Particulars	Batsman A	Batsman B
No. of matches played	10	10
Average runs scored per match	40.5	52.5
Standard deviation	12	14

**SECTION - C****Answer any TWO questions from this section. Each question carries 12 marks.****(2×12=24)**

7. Calculate Median and Mode from the following data:

C.I:	5-9	10-14	15-19	20-24	25-29	30-34	35-39
f:	2	3	6	14	20	12	3



8. Calculate standard deviation and coefficient of variation from the following data:

Income(Rs.)	300-400	400-500	500-600	600-700	700-800	800-900	900-1000
No.of Persons	30	46	58	76	60	50	20

9. Compute Karl Pearson's coefficient of correlation and probable error from the following data:

X:	158	160	163	165	167	170	167	172	177	181
Y:	163	158	167	170	160	180	170	175	172	175

#### SECTION - D

Answer any ONE question from this Section, carrying 6 marks.

(1×6=6)

10. Draw a blank table and name the parts of the table.  
11. Draw a Pie Diagram from the details given below.

Group	Food	Clothing	House rent	Fuel	Miscellaneous
Expenditure(%)	40	20	10	16	14