DCBC302

Reg. No.

III Semester B.Com.(Regular)/LSCM/IAS Degree Examination, April - 2023

COMMERCE

Business Statistics

Paper : 3.2

(NEP Scheme Freshers)

Time : 2½ Hours   Maximum Marks : 60

Instructions to Candidates:

Answers should be written completely in english only.

Section - A

Answer any **five** sub-questions. Each question carries two marks.   (5×2=10)

1.   a.   What is measures of central tendency?

     b.   Mention the sources of primary data.

     c.   Define Mode.

     d.   Find the value of mode when mean = 20 and median = 22.

     e.   Mean and variance of 100 items are found to be 40 and 121. What is its CV?

     f.   What is negative correlation?

     g.   Find 'r' when two regression coefficients are -0.6 and -1.4.

Section - B

Answer any **four** of the following questions. Each question carries **five** marks.   (4×5=20)

2.   In a sample study about coffee habit in two towns, the following information was received. Town A - Female 40%, the total coffee drinkers were 45% and male non - coffee drinkers were 20%. In town B male 55%, male non-coffee drinkers were 30% and female coffee drinkers were 15%. Present the data in a tabular form.

3.   Find median from the following data.

Marks :	20	30	40	50	60	70
Students :	4	5	7	11	8	7

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4. Calculate standard deviation from the following.

X :	20	22	25	31	35	40	42	45
f :	5	12	15	20	25	14	10	6

5. If r = 0.6 and N = 36 of a distribution, find the probable error.

6. Given the following information :

$\overline{X} = 65$, $\overline{Y} = 67$, $\sigma_x = 25$ variance of Y = 12.25 and r = 0.8. Calculate two regression lines.

Section - C

Answer any **two** of the following questions. Each question carries **twelve** marks.

(2×12=24)

7. Compute the mean, median and mode from the following data :

Mid values :	115	125	135	145	155	165	175	185	195
Frequency :	6	25	48	72	116	60	38	22	3

8. Following are the scores of two batsmen A and B in a series of innings :

Batsman A :	12	115	6	73	7	19	119	36	84	29
Batsman B :	47	12	76	42	4	51	37	48	13	0

Find out who is better scorer and who is more consistent.

9. Calculate Karl Pearson's coefficient of correlation from the following data and also calculate the probable error.

Supply (in quintals) :	30	29	29	25	24	24	24	21	18	15
Price (Rs.) :	11	12	13	14	15	16	15	17	18	20

Section - D

Answer any **one** of the following questions. Each question carries **six** marks. (1×6=6)

10. Calculate correlation coefficient with imaginary figures of ages of husbands and wives of 5 couples.

11. Calculate the coefficient of variation of two distributions with imaginary figures of mean and standard deviation and compare their consistency.