2023

(FYUGP)

(3rd Semester)

COMMERCE

(Major)

Paper Code : BC/C5

(Business Statistics)

Full Marks : 75
Pass Marks : 40%

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. *(a)* Define statistics. Explain the functions of statistics. 5+10=15

Or

(b) Explain the various methods of collecting primary and secondary data. 8+7=15

2. *(a)* Calculate mean and median from the following : 15

Marks	0–10	10–20	20–30	30–40	40–50	50–60	60–70
No. of Students	5	12	30	45	50	37	21

Or

(b) Explain the various types of average. Also give its merits and limitations. 7+8=15

3. *(a)* Calculate Karl Pearson's coefficient of correlation from the following data :

Price (in ₹)	4	5	7	10	4
Supply (in ₹)	10	12	13	15	20

Interpret your result. 13+2=15

Or

(b) Explain the uses of regression analysis. Distinguish between correlation and regression analysis. 7+8=15

4. *(a)* Construct index number of price from the following data by applying : 15

(i) Laspeyres' method

(ii) Paasche's method

(iii) Bowley's method

(iv) Fisher's ideal method

Commodity	*2021*		*2022*	
	Price	*Quantity*	*Price*	*Quantity*
A	2	8	4	6
B	5	10	6	5
C	4	14	5	10
D	2	19	2	13

Or

(b) Explain the various components of time series. 15

5. *(a)* Explain the concept and importance of probability. 7+8=15

Or

(b) A bag contains 30 balls numbered from 1 to 30. One ball is drawn at random. Find the probability that the number of the balls drawn be a multiple of—

(i) 5 or 7

(ii) 3 or 7 15

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