Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 13 – 12- 2025 **Time:** 09:30am – 12:30pm

School: SOL	**Program:** B.Com. LLB	
Course Code: BCL2003	**Course Name:** Business Statistics	
Semester: III	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	CO1	CO2	CO3	CO4
Marks	56	24	54	46

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

1.	Outline time series data and cross-sectional data	**2 Marks**	**L1**	**CO1**
2.	Recall interval scale and ratio scale measurement of a statistical variable.	**2 Marks**	**L1**	**CO1**
3.	Define median for an odd number of observations of a variable.	**2 Marks**	**L1**	**CO2**
4.	Recall partition values of quartiles, deciles and percentiles.	**2 Marks**	**L1**	**CO2**
5.	Recognize the relative measures of dispersion.	**2 Marks**	**L1**	**CO3**
6.	Outline the steps to calculate coefficient of variation.	**2 Marks**	**L1**	**CO3**
7.	Recall the numerical range of a correlation coefficient.	**2 Marks**	**L1**	**CO4**
8.	Outline regression analysis.	**2 Marks**	**L1**	**CO4**
9.	Recall the various diagrammatic and graphical methods to present statistical data.	**2 Marks**	**L1**	**CO1**
10.	State the formula to compute weighted price index numbers.	**2 Marks**	**L1**	**CO4**

Part B

Answer the Questions. **Total Marks 80M**

11.	Discuss about subject statistics, its significance, scope and limitations.	**10 Marks**	**L2**	**CO1**
	Or			
12.	Explain various methods of collecting primary data for statistical investigation.	**10 Marks**	**L2**	**CO1**

13.	Describe various methods of computing central tendency of a raw statistical distribution.	**10 Marks**	**L2**	**CO2**
	Or			
14.	Harmonic mean is used to compute averages of ratios and growth rates. Compute harmonic mean of the distribution given below. **Growth rate** / **Frequency** 0.9 / 15 0.2 / 7 0.7 / 12 0.3 / 3 0.4 / 5 0.8 / 9	**10 Marks**	**L3**	**CO2**

15.	Measures of dispersion help calculate variability in the observations of a variable from average. Compute coefficient of variation for the distribution given below. **Profit from Trade** 200 175 250 400 230 360	**10 Marks**	**L3**	**CO3**
	Or			
16.	Measures of dispersion help calculate variability in the observations of a variable from average. Compute range and coefficient of range for the distribution given below. **Income Class** / **Frequency** 30-50 / 12 50-70 / 15 70-90 / 30 90-110 / 44 110-130 / 21 130-150 / 10	**10 Marks**	**L3**	**CO3**

17.	**a.**	Discuss various methods of presenting statistical data in tables, diagrams and graphs with example.	**15 Marks**	**L2**	**CO1**
		Or			
18.	**a.**	Explain different types of classification of statistical data with example	**15 Marks**	**L2**	**CO1**

19.	**a.**	Discuss about measures of skewness and its importance.	**5 Marks**	**L2**	**CO3**
	b.	Compute Karl Pearson coefficient of skewness for the data given below. **Income Class** / **Frequency** 0-5 : 12 5-10 : 15 10-15 : 30 15-20 : 44 20-25 : 21 25-30 : 10	**10 Marks**	**L3**	**CO3**
		Or			
20.	**a.**	Coefficient of variation is a measure to compute risk involved in variable. Discuss about steps to compute coefficient of variation.	**5 Marks**	**L2**	**CO3**
	b.	Compute the coefficient of variation for the two stocks A and B separately and identify the riskiest stock among A and B. **Stock A Price**: 15, 30, 60, 40, 15, 25, 30 **Stock B Price**: 25, 40, 33, 28, 20, 22, 33	**10 Marks**	**L3**	**CO3**

21.	**a.**	Discuss about regression analysis and its importance.	**5 Marks**	**L2**	**CO4**
	b.	Given below is the sales and price data of a product. Estimate simple linear regression equation by regressing sales on price. **Sales** / **Price** 75 : 40 80 : 25 115 : 30 60 : 50 110 : 20 90 : 35	**10 Marks**	**L3**	**CO4**
	c.	Based on the regression equation estimated in the question above (b), predict the value of sales if price is 15.	**5 Marks**	**L3**	**CO4**
		Or			
22.	**a.**	Discuss about correlation analysis and different degrees of correlation.	**10 Marks**	**L2**	**CO4**

	b.	Compute Karl Pearson's co efficient of correlation for the data given below.	**10 Marks**	**L3**	**CO4**

Agriculture Productivity	**Fertilizer Use**
150	20
100	30
60	15
80	8
130	15
30	4