Registration Number:
Date & session:

ST. JOSEPH'S UNIVERSITY, BENGALURU -27
M.Sc. (BIG DATA ANALYTICS) – I SEMESTER
SEMESTER EXAMINATION: OCTOBER 2023
(Examination Conducted in November/December 2023)
BDA1121 – BASIC STATISTICAL METHODS
(For current batch students only)

Time: 2 Hours **This paper contains TWO printed pages and THREE parts** **Max Marks:50**

PART A

Answer All the questions **2 X 5 = 10**

1 A satisfaction survey was conducted to rate your experience as poor, average, good or excellent. Which scale of measurement would you associate this ranking with?
2 Define primary data.
3 Define mean and median
4 What is the intercept and slope of a regression line?
5 If unexplained variation between variables x and y is 0.25, what is the value of R^2?

PART B

Answer any FIVE questions **5 X 4 = 20**

6 Explain stratified Random sampling
7 Write a short note on box plot
8 Explain the different methods of dealing with missing data and their limitations
9 Determine median for the following series
   (a) 77, 73, 72, 70, 75, 79, 78
   (b) 94, 33, 86, 68, 32, 80, 48, 70
10 What is multicollinearity? What effect does it have on the regression model?
11 Find the simple linear regression of Y on X from the following data

X	1	2	3	4	5
Y	3	2	5	6	7

12 Write down the estimate of $\boldsymbol{\beta} = \begin{bmatrix} \beta_0 \\ \beta_1 \\ \beta_2 \end{bmatrix}$ of the regression equation $y = \beta_0 + \beta_1 x_1 + \beta_2 x_2$

PART C

Answer Any TWO questions **2 X 10 =20**

13 Explain Various graphical presentation of data.

14 Find Mean, Coefficient of variation, skewness and Kurtosis of the data given below
12,18,16,13,13.

15 From the following table calculate the coefficient of correlation by Karl Pearson's method.

X	6	2	10	4	8
Y	9	11	5	8	7