

Registration Number:

Date & Session:



ST. JOSEPH'S UNIVERSITY, BENGALURU-27
MSc (BIG DATA ANALYTICS) – I SEMESTER
SEMESTER EXAMINATION: OCTOBER 2022
(Examination conducted in December 2022)
BDA1121: BASIC STATISTICAL METHODS

Time: 2 Hours

Max Marks: 50

This paper contains TWO printed pages and THREE parts

PART A

Answer ALL questions

5 X 1 = 5

1. Define Nominal data
2. What do you mean by central tendency?
3. Mention the methods to find the dispersion of the data
4. What are the limits of correlation coefficient?
5. What do you mean by regression?

PART B

Answer any FIVE questions

5 X 3 = 15

6. Distinguish between Population and Sample.
7. With an example define discrete and continuous variable.
8. Find Arithmetic mean and geometric mean of 1, 2, 4.
9. What do you mean by skewness and its types?
10. Define Positive, Negative and zero correlation.
11. Write down the estimate of $\beta = \begin{bmatrix} \beta_0 \\ \beta_1 \end{bmatrix}$ of the regression equation $y = \beta_0 + \beta_1 x$.
12. Distinguish between Multiple and partial correlation.

PART C

Answer any THREE questions.

3 X 10 = 30

13. Fifty Items are randomly selected from a lot of items produced by the machine. The weights of the selected items are
2.1, 2.6, 3.2, 3.7, 4.0, 4.6, 5.4,
2.7, 3.3, 3.8, 4.1, 4.7, 3.4, 3.9,
4.2, 4.0, 2.5, 3.0, 3.5, 4.1, 4.5,
3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8,

3.9, 4.0, 2.5, 4.7, 4.5, 5.2, 5.3,
3.6, 3.8, 3.7, 3.8, 3.8, 2.5, 2.4,
2.6, 2.7, 2.9, 3.1, 3.2, 3.7, 3.9,
3.5

Construct the Frequency distribution. Also obtain Less than Cumulative Frequency (LCF) distribution and More than Cumulative Frequency (MCF) distribution.

14. For the data given in 13 construct stem and leaf chart and also Histogram for the frequency distribution constructed.

15. The marks scored by 10 students selected from a class are 65, 89, 78, 89, 93, 65, 34, 79, 66 and 60. Find Mean, variance, skewness and Kurtosis.

16. Following are the information relating to price and sales of the commodity

Price in rupees	12	15	16	17	20	22	23
Sales in '000 kgs	28	26	26	24	22	21	20

Find Karl Pearson's correlation coefficient. Also estimate the sales if the price is 25 rupees.