

No. of Printed Pages : 3 **BCSL-044(Set-III)**

**BACHELOR OF COMPUTER
APPLICATIONS (BCA)**

Term-End Practical Examination

December, 2024

**BCSL-044(Set-III) : STATISTICAL TECHNIQUES
LAB**

Time : 1 Hour

Maximum Marks : 50

Note : (i) *There are two compulsory questions in this paper, each of 20 marks. Rest 10 marks are for viva-voce.*

(ii) *Use any spreadsheet package for solving the problems.*

(iii) *For programming, if asked, you may use any C/C++ compiler.*

1. The marks obtained by 20 students of a class are listed in the following table :

Marks out of 100

75	85	65	36	61
90	93	81	38	45
50	55	51	67	75
85	67	71	50	45

Perform the following tasks for the data given :

$$8+4+4+4=20$$

- (a) Enter the data in the spreadsheet software and create a frequency distribution in 6 equal intervals. Use array formula to create the distribution.
- (b) Draw the histogram of data given.
- (c) Find the mean and standard deviation of the data.
- (d) Find the new mean and standard deviation, if marks of 5 more students are added to the data. These marks are 31, 61, 29, 61, 20.

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2. Consider the following data :

Wind Speed (km/h)	Air Quality Index (AQI)
5	90
10	50
2	110
3	100
1	130
4	100
6	70

- (a) Draw a scatterplot for the given data using a spreadsheet package. 10
- (b) Find the best linear regression line which fits the data given above. Assume wind speed as independent variable. Explain your results. 10

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