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BCSL-044/S3

**Bachelor of Computer
Application (Revised) (BCA)
Term-End Examination
December, 2018**

STATISTICAL TECHNIQUES LAB

Time : 1 Hour

Maximum Marks : 50

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- Note :** (i) There are *two* compulsory questions in this paper of 20 marks each. Rest 10 marks are for viva-voce.
- (ii) Use any spreadsheet package for solving the problems. For programming (if asked), you may use any C/C++ compiler.
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1. A company measures the performance of its product through a questionnaire and convert the rating to a 100-point scale. The following data shows sample of 20 such outcomes :

Rating (on 100-point scale)				
75	25	67	89	95
35	75	60	70	80
90	79	69	89	81
45	55	65	95	85

Perform the following tasks for the data given above : (8 + 4 + 4 + 4 =20)

- Enter the data in a spreadsheet package and create a grouped frequency distribution in 5 equal intervals. Use array formula for finding the frequency distribution.
- Draw the histogram of the data.
- Find the mean and median of the data. Is the data normally distributed ?
- Remove all the outliers, if any, and find the mean and median again.

2. To find a relationship between household income and cost of mobile phone bought, a study was conducted, which reported the following data :

Household Income (monthly in INR)	Cost of Mobile bought (in INR)
25,000	8,000
35,000	6,000
1,00,000	15,000
75,000	12,000
50,000	12,000
60,000	15,000
45,000	5,000
90,000	16,000

- (a) Construct a scatter plot for the given data using spreadsheet package. 10
- (b) Find the best linear regression line assuming household income as independent variable and cost of mobile as dependent variable. Is this line a good fit ? 10