BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA)

Term-End Practical Examination

00529

June, 2018

BCSL-044(P)/S4 : STATISTICAL TECHNIQUES LAB

Time : 1 Hour   *Maximum Marks : 50*

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.*

1.   Average speed of 20 city buses were recorded in the following table :

Average speed of buses in km/hr

15	25	35	65	10
18	36	39	45	50
23	29	31	42	49
16	60	52	41	37

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

(a)   Enter the data in a spreadsheet software and create a frequency distribution in 5 equal ranges. Use array formula for finding the frequency distribution.

(b)   Draw the histogram of the data. Does the data follow normal distribution ?

(c)   Find the relative frequency distribution for the frequency distribution obtained in part (a).

(d)   Find the mean and standard deviation for the data using spreadsheet formula.

2. To find a relationship between incomes of households and their expenses, a study was conducted which obtained the following data :

Household Income (monthly in ₹)	Expenditure (monthly in ₹)
50,000	35,000
75,000	50,000
5,000	10,000
30,000	25,000
15,000	20,000
45,000	35,000
10,000	11,000
25,000	21,000

(a) Construct the scatter plot for the given data using spreadsheet package. *10*

(b) Find the best linear regression line assuming expenditure is an independent variable and income is a dependent variable. Is this line a good fit ? *10*

———