

**BACHELOR OF COMPUTER APPLICATIONS (Revised)**  
**(BCA)**

**Term-End Practical Examination**

June, 2018

00205

**BCSL-044(P)/S2 : 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. Daily Milk consumptions of several households were recorded as the following sample data :

Consumption of Milk (in litres)

2.5	3.0	4.0	4.5	6.5
2.0	1.0	0.5	7.0	3.5
4.5	5.0	3.5	2.5	6.0
5.5	2.0	1.5	6.0	3.5

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 4 equal intervals. Use array formula for finding the frequency distribution.
- (b) Draw the histogram of the data and find if there is any outlier in the data.
- (c) Find the relative frequency distribution from the frequency distribution created in part (a).
- (d) Find the mean and standard deviation of the data.

2. A group of 8 students were given an examination before and after doing an e-learning course. The following table shows marks obtained by them :

Marks before e-learning course (out of 500)	Marks after e-learning course (out of 500)
245	276
398	375
475	470
310	380
210	200
275	345
340	350
290	300

Using t-test with a significance of 5%, can you say that the e-learning course has resulted in increase in performance of the students ? Clearly write  $H_0$  and  $H_1$  and explain your result. Make suitable assumptions, if any.

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