

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

**Term-End Practical Examination**

00755

**June, 2017**

**BCSL-044(P)/S4 : 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 implementation. For programming (if asked), you may use any C/C++ compiler.*
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1. A sample of 20 mobile phones was studied to find the average battery life. The following table shows this data :

(Battery Life in hrs)

17.5	12.5	29.7	10.2	5.3
22.5	4.2	20.5	16.0	12.5
15.7	16.5	25.5	23.5	8.5
18.3	13.3	16.9	17.3	27.0

Perform the following tasks for the data given above :

8+4+4+4=20

- (a) Enter the data in a spreadsheet and create a frequency distribution. You must create suitable ranges for this distribution. Use array formula for finding the distribution.
- (b) Draw the histogram of the data.
- (c) Find the relative frequency distribution for the frequency distribution obtained in part (a).
- (d) Find the mean and standard deviation.

2. A group of 10 students were tested for Spoken English, then the students were given a crash course in English and tested again after 2 weeks. The following table displays their marks (out of 100) :

Marks before crash course	Marks after crash course
62	60
32	35
19	40
80	75
65	70
75	80
45	60
71	70
25	40
62	60

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

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