

BACHELOR OF COMPUTER APPLICATIONS (Revised)
(BCA)

Term-End Practical Examination

December, 2016

BCSL-044(P)/S2 : 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. A survey was made to find the average number of hours per day spent by students in outdoor games. The following sample shows such data of 20 students :

Hours spend on outdoor games (per day)

5.1	2.2	1.1	1.5	0.5
7.0	2.5	1.5	1.3	1.2
3.5	4.5	5.5	6.1	3.2
4.7	2.9	1.3	3.1	0.2

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 7 equal ranges. Use array formula to create the distribution.
- (b) Draw the histogram of the data.
- (c) Find the mean and variance of the data using spreadsheet formula.
- (d) Find the new mean and variance if five more samples are added to the data. The additional data is : 8.1 7.2 3.5 1.5 6.1.

2. A new medicine was tested on 500 rats for its effectiveness. The result of the study is shown in the following table :

Categories	Not Healthy	Healthy	Total
Mouse given medicine	40	220	260
Mouse not given medicine	120	120	240
Total	160	340	500

Use Chi-square test to determine if the medicine helped the mouse to stay healthy. Explain your result. Make suitable assumptions, if any.

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