

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

00391

**Term-End Practical Examination  
December, 2013**

**BCSL-044 : STATISTICAL TECHNIQUES LAB**

*Time allowed : 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 programming (if asked) you may use any C/C++ compiler.*

1. The marks obtained by 20 students in semester end examinations out of 200 are :

175 100 80 180 150  
60 95 120 135 190  
115 90 160 117 131  
129 20 37 75 129

**8+4+4+4=20**

Perform the following tasks for the data given above :

- (a) Enter the data in a spreadsheet package and create a frequency distribution in the range 0-20, 21-40, 41-60,.....181-200, using array formula.
- (b) Draw the histogram for the data.
- (c) Find the mean and standard deviation of the data using spreadsheet.
- (d) Find the minimum and maximum scores using spreadsheet formula.

2. The sugar level of 6 patients were recorded before and after taking a new drug :

**20**

Before	130	200	100	95	125	150
After	95	120	99	90	100	110

Using t-test and a significance level of 5% can you determine if the new drug causes significant reduction in sugar level. You must write  $H_0$  and  $H_1$  clearly and explain your results.