# BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA) 

02003 Term-End Practical Examination<br>December, 2015

## BCSL-044(P)/S1: STATISTICAL TECHNIQUES LAB

## Time : 1 Hour

Maximum Marks : 50

Note: (i) There are two compulsory questions 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.

1. The life of a sample of 20 computer disks in number of days were recorded. The following table shows this data :
(Life of computer disks in number of days)

| 1025 | 897 | 795 | 1205 | 760 |
| ---: | ---: | ---: | ---: | ---: |
| 875 | 1000 | 1111 | 987 | 795 |
| 899 | 975 | 825 | 1099 | 1050 |
| 859 | 1075 | 1175 | 1125 | 1011 |

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 in the ranges : less than 750; 751-850; 851-950; 951-1050; 1051-1150; 1151-1250; and more than 1250. Use array formula for finding the frequency distribution.
(b) Draw the histogram of the data.
(c) Find the relative frequency of the frequency distribution obtained in part (a).
(d) Find the mean and standard deviation of the data using spreadsheet formula.
2. A group of 8 typists were given a crash course in typing. The following table shows their typing speed before and after the course :

Typing Speed in characters typed per minute

| Before the Course | 40 | 21 | 81 | 62 | 18 | 60 | 31 | 35 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| After the Course | 42 | 29 | 79 | 62 | 25 | 61 | 34 | 36 |

Using t-test with a significance level of $5 \%$, can you say that the crash typing course has helped in developing significant increase in typing speed ? Clearly write $\mathrm{H}_{0}$ and $\mathrm{H}_{1}$ and explain your result. Make suitable assumptions, if any.

