## BACHELOR OF COMPUTER APPLICATIONS (Revised)

## (BCA)

Term-End Practical Examination
June, 2015
BCSL-044(P)/S3 : 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 programming (if asked) you may use any C/C++ compiler.

1. The average temperatures of 20 different locations were recorded in a table. This data is as follows :
(Temperature in ${ }^{\circ} \mathrm{C}$ )

| 35 | 11 | 2 | 17 | 40 |
| :---: | :---: | :---: | :---: | :---: |
| 25 | 17 | 29 | 33 | 37 |
| 15 | 19 | 28 | 38 | 31 |
| 18 | 24 | 27 | 35 | 40 |

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 : below $5^{\circ} \mathrm{C} ; 6^{\circ}$ to $15^{\circ} \mathrm{C}$; $16^{\circ}$ to $25^{\circ} \mathrm{C} ; 26^{\circ}$ to $35^{\circ} \mathrm{C} ; 36^{\circ}$ to $45^{\circ} \mathrm{C}$; above $45^{\circ} \mathrm{C}$. Use array formula for finding the frequency distribution.
(b) Draw the histogram of the data.
(c) Find the mean and standard deviation for the data using spreadsheet formulae/functions.
(d) Find the minimum and maximum temperature using spreadsheet formulae/functions.
2. To find a relationship between age and height, an NGO collected the following data:

| Age in years | Height in cms |
| :---: | :---: |
| 9 | 135 |
| 7 | 127 |
| 3 | 100 |
| 5 | 125 |
| 6 | 120 |
| 8 | 137 |
| 2 | 95 |
| 7 | 135 |

(a) Construct a scatter plot (diagram) for the given data using a spreadsheet package.
(b) Find the best linear regression line assuming that age is the dependent variable and height is the independent variable.

