# BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA) 

Term-End Practical Examination<br>June, 2015<br>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. The heights of 20 students of Class 10 of a school are given below :
(Heights in cms)

| 175 | 152 | 153 | 159 | 165 |
| :--- | :--- | :--- | :--- | :--- |
| 161 | 179 | 150 | 147 | 165 |
| 167 | 180 | 158 | 157 | 165 |
| 171 | 170 | 167 | 161 | 156 |

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 the ranges : less than $150 \mathrm{cms} ; 151-160 \mathrm{cms} ; 161-170 \mathrm{cms}$; $171-180 \mathrm{cms}$; more than 180 cms . Use array formula to create the frequency distribution.
(b) Draw the histogram of the data.
(c) Find the mean and variance for the data using spreadsheet formulae.
(d) Find the minimum and maximum height using spreadsheet formulae.
2. A new fertilizer was being tested on a group of plants. The results are tabulated in the following table:

| Categories | Shows growth | No growth <br> at all | Total |
| :--- | :---: | :---: | :---: |
| Given fertilizer | 275 | 75 | 350 |
| Not given fertilizer | 150 | 250 | 400 |
| Total | 425 | 325 | 750 |

Use chi-square test to determine if giving fertilizer has any effect on the growth of the plants. Explain your results. Make suitable assumptions, if any.

