BACHELOR OF COMPUTER APPLICATIONS (Revised) (BCA)

Term-End Practical Examination

December, 2017

00042

BCSL-044(P)/S4: STATISTICAL TECHNIQUES LAB

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 implementation. For programming (if asked), you may use any C/C++ compiler.

1. A sample of 20 mobiles were studied for their battery life. The following table shows the data:

Battery Life (mAh)

| 4500 | 1900 | 1000 | 1200 | 4000 |
|------|------|------|------|------|
| 3600 | 2500 | 3200 | 800 | 900 |
| 4000 | 2000 | 1700 | 1600 | 4100 |
| 2100 | 1900 | 1600 | 1300 | 1200 |

Perform the following tasks for the data given above :

8+4+4+4=20

- (a) Enter the data in a spreadsheet package and create a frequency distribution in 5 equal intervals. Use array formula for finding the frequency distribution.
- (b) Draw the histogram of the data.
- (c) Find the mean and variance of the data.
- (d) Find the maximum and minimum values in the data using spreadsheet functions.

2. Rust treatment was given to a random number of cars from a group of 400 cars. The following table shows the data:

| Categories | Cars which got rusted | Cars which did not get rusted | Total |
|-------------------------------|-----------------------|----------------------------------|-------|
| Cars given rust treatment | 50 . | 160 | 210 |
| Cars not given rust treatment | 70 | 120 | 190 |
| Total | 120 | 280 | 400 |

Use chi-square test to determine if the rust treatment was of any use or not. Explain your results. Make suitable assumptions. 20