

No. of Printed Pages : 3 **BCSL-044(Set-II)**

**BACHELOR OF COMPUTER  
APPLICATIONS (BCA)**

**Term-End Practical Examination**

**December, 2024**

**BCSL-044(Set-II) : STATISTICAL TECHNIQUES  
LAB**

*Time : 1 Hour*

*Maximum Marks : 50*

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**Note :** (i) *There are two compulsory questions in this paper, each of 20 marks. Rest 10 marks are for viva-voce.*

(ii) *Use any spreadsheet package for solving the problems.*

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

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1. The age of 20 students of an Open University BCA program was recorded. This data is given in the following table :

**Age of Students (in completed years)**

|    |    |    |    |    |
|----|----|----|----|----|
| 18 | 25 | 35 | 17 | 21 |
| 27 | 29 | 20 | 18 | 17 |
| 24 | 23 | 22 | 21 | 20 |
| 29 | 27 | 33 | 31 | 23 |

Perform the following task for the data given above :

$$8+4+4+4=20$$

- (a) Enter the data in a spreadsheet package and create a frequency distribution in 4 equal intervals. You may use array formula for finding the distribution.
- (b) Draw the histogram of the data.
- (c) Find the mean and variance of the data.
- (d) Find the cumulative frequency distribution for the frequency distribution creates in part (a).

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2. A group of 400 patients were subjected to a new medicine as per the following details : 20

| Categories                      | Recovered | Did not recover | Total |
|---------------------------------|-----------|-----------------|-------|
| Patients given new medicine     | 150       | 50              | 200   |
| Patients not given any medicine | 125       | 75              | 200   |
| Total                           | 275       | 125             | 400   |

Use the Chi-square test to determine if the medicine has helped patients to recover. Explain your results. Make suitable assumptions, if any.

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