



**B.C.A. V Semester Degree Examination, April/May - 2024**

**COMPUTER SCIENCE**

**DSC-14 : Statistical Computing and R Programming**

**(NEP)**

Time : 2 Hours

Maximum Marks : 60

**SECTION - A**

Answer the following sub-questions. Each sub-question carries **one** mark. **10x1=10**

1. (a) What is R programming ?
- (b) Define vector.
- (c) What is visibility in R ?
- (d) Write the syntax for switch statement.
- (e) What is data visualization ?
- (f) Mention four poisson distribution available in R.
- (g) Define sampling testing.
- (h) List key steps in hypothesis testing.
- (i) Mention types of Regression.
- (j) What are plotting functions ?

**SECTION - B**

Answer **any four** of the following questions. Each carries **five** marks. **4x5=20**

2. Explain the features of R programming.
3. Explain function in R with syntax give an example.
4. Explain types of uniform distribution.
5. Explain one-way ANOVA in R.
6. Explain specialized text notation.
7. Write a R program to demonstrate operators and control structures in R.



**SECTION - C**

Answer **any three** of the following questions. Each question carries **ten** marks.

**3x10=30**

8. What is data frame ? Explain the manipulation of data frame.
9. Explain the looping statements with an example.
10. Explain R graphics functions : plot (), hist (), pie (), boxplot (), scatter plot with neat diagram.
11. Explain the sampling distribution in R.
12. Write a note on the following :
  - (a) Linear Regression
  - (b) 3D scatter plot

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