V Semester B.C.A. Degree Examination, February/March 2024
(NEP) (Freshers)
COMPUTER APPLICATIONS
DSC14 – Statistical Computing and R Programming

Time : 2½ Hours

Max. Marks : 60

*Instruction : Answer **all** the Sections.*

SECTION – A

I. Answer **any six** questions. **Each** question carries **2** marks.　　(6×2=12)

1) What is a vector ?

2) Write the different classes used in R programming.

3) How do you call a function in R ?

4) What is plotting ?

5) What is common probability mass functions ?

6) What do you mean by normal distribution ?

7) Mention any two applications of t-distribution.

8) What is hypothesis testing ?

9) What is linear regression ?

SECTION – B

II. Answer **any four** questions. **Each** question carries **6** marks.　　(4×6=24)

10) Explain factors in R and its function.

11) Discuss different types of operators in R.

12) Explain uniform distribution with respect to probability density function with an example.

13) What is cumulative sum, product, minimum, maximum ? Explain with R program.

14) Explain the data visualization techniques with neat diagrams.

15) Explain one way ANOVA.

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SECTION – C

III. Answer **any three** questions. **Each** question carries **8** marks.   (3×8=24)

16) Write a R program to create a matrix, taking a given vector of numbers as input and define the column and row names. Display the matrix.

17) Differentiate with bar and histogram plotting.

18) Discuss t-test with example.

19) Explain probability functions in details.

20) Explain ANOVA test with example.