21BCA5C14SPL

Sl. No.

B.C.A. V Semester Degree Examination, Sept./Oct. - 2024
COMPUTER SCIENCE
Statistical Computing & R-Programming
(NEP)

Time : 2 Hours   Maximum Marks : 60

SECTION - A

I.   Answer **all** the following Sub-questions. Each Sub-question carries **one** mark.   **10x1=10**

1.   (a)   Who developed R-programming ?

   (b)   Define list.

   (c)   Mention any 2 functions of reading Data file in R.

   (d)   What is the use of Stop() & Warning() Exception in R ?

   (e)   Mention four normal distribution available in R.

   (f)   What is Student-t distribution ?

   (g)   What is hypothesis testing ?

   (h)   Define ANOVA.

   (i)   Define Regression.

   (j)   Define Packages.

SECTION - B

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

2.   What is data frame ? How to create data frame write with example ?

3.   Write a note on While loop and Repeat loop in R.

4.   Explain Bernoulli Distribution Pn in detail with example.

5.   Explain Two-way ANOVA in R.

6.   Explain Specialized text notations.

7.   Write a R program to demonstrate operators & control structures in R.

SECTION - C

III. Answer **any three** questions, each question carries **ten** marks.   **3x10=30**

    8.   Explain matrix operations with an example.

    9.   Explain Writing Data to Text files & Excel files with an example.

    10.   Explain R graphics functions plot(), Hist(), Pie(), Boxplot() scatter plot with neat diagram.

    11.   Write a note on sampling distribution's in R.

    12.   Write notes on :
        (a)   Linear Regression
        (b)   3D Scatter

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