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SDCCA202

II Semester B.C.A./B.C.A. (DS) Degree Examination, June/July - 2026

(SEP Scheme Freshers + Repeaters)

COMPUTER APPLICATIONS

Statistical Methods Using R Programming

NEW HORIZON COLLEGE LIBRARY KASTURINAGAR BANGALORE-43

Time : 3 Hours Maximum Marks : 80

***Instructions*** :

*Answer all the Sections.*

## SECTION - A

I. **Answer any Ten questions. Each question carries 2 marks.** (10×2=20)

1. What is R studio?
2. Define variable in R. Give an example.
3. What is list in R?
4. Define matrix.
5. What is switch ( ) function?
6. Define Data frame.
7. What is Bernoulli distribution?
8. Differentiate between PDF and CDF.
9. What is sampling distribution?
10. Define correlation.
11. What is multiple regression?
12. What is Null Hypothesis?

## SECTION - B

II. **Answer any Six questions. Each question carries 5 marks.** (6×5=30)

13. Describe the different operators in R with examples.
14. Explain arrays and dataframes in R with suitable examples.
15. Compare and illustrate the use of for and while loops in R with examples.
16. Illustrate the use of built - in string functions in R with examples.
17. Explain the Normal distribution and demonstrate its implementation in R.
18. Analyze ANOVA and differentiate its types.

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19. Explain plot Customization in R.

20. Explain in detail about Sampling Distribution.

## SECTION - C

**III. Answer any Three questions. Each question carries 10 marks.** **(3×10=30)**

21. a) Describe the data structures in R with an example. **(5)**

    b) Apply file handling operations in R by writing a program to read and write files. **(5)**

22. a) Explain in detail about statistical functions available in R. **(5)**

    b) Explain user - defined functions in R with syntax and example. **(5)**

23. a) Explain the Binomial distribution and illustrate its functions in R. **(5)**

    b) Analyze different data visualization techniques in R. **(5)**

24. a) Analyze multiple linear regression. **(5)**

    b) Explain hypothesis testing with an example. **(5)**