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DCCA-502

V Semester B.C.A. Degree Examination, December/January-2025/26
(NEP Scheme Freshers & Repeaters)
COMPUTER APPLICATIONS
Statistical Computing and R Programming
Paper - DSC14

NEW EDUCATION COLLEGE LIBRARY KASTURINAGAR BANGALORE-43

Time : 2½ Hours Maximum Marks : 60

*Instructions*:

*Answer All the Sections.*

## SECTION - A

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

1. What is Vector?
2. What is coercion?
3. What is looping?
4. What is the use of scan() in R?
5. Define Data Visualization.
6. What is Probability?
7. What is ANOVA?
8. Mention any two ways to define colors in R.
9. Mention any two packages used for executing Advanced graphics in R.

## SECTION - B

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

10. Write a R program that include variables, constants, data types.
11. Explain the concepts of Arrays with an example.

[P.T.O.

12. Explain any two looping statements in R with syntax and examples.

13. Explain Bernoulli distribution in R.

14. Explain testing categorical variables in R.

15. Write a note on 3D scatter plot.

## SECTION - C

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

16. Write a note on Arithmetic and Assignment Operator in R. Write an R program that includes different operators. **(8)**

17. a) Explain the exception handling in R. **(4)**
    b) Explain nested if statement in R with example. **(4)**

18. Explain any two probability density distribution functions in R. **(8)**

19. a) Discuss hypothesis testing. **(4)**
    b) Write a short note on sampling distribution. **(4)**

20. What is Regression? Explain the concept of Multiple Linear Regression. **(8)**

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