K26FY0464 Pages: 2 Reg No:.....
Name:.....

Fourth Semester FYUGP Degree (Reg) Examination April 2026

KU4DSCSTA205 - INTRODUCTION TO R PROGRAMMING

2024 Admission onwards

Time : 1.5 hours Maximum Marks : 50

Section A

Answer any 6 questions. Each carry 2 marks.

1. How can matrix elements be overwritten in R?
2. Write a program to add two matrices.
3. Write R code to generate 100 random values from a Normal distribution with mean 0 and standard deviation 1.
4. Explain the four main R functions used for probability distributions (d, p, q, r functions).
5. Write R code to draw a pie chart in R.
6. Define interquartile range. Write R code to compute it.
7. What are the dis-advantages of R-programming?
8. Write a note on c() function and sequence operator.

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Section B

Answer any 4 questions. Each carry 6 marks.

9. Discuss scatter plots and their importance in studying relationships between variables. How do you create a scatter plot in R?
10. Explain bar plot, pie chart, box plot, and scatter plot with suitable R code.
11. Explain simple linear regression. Interpret regression coefficients in a simple linear regression model. Write R code to fit a regression model using lm() function.
12. Compare vectors, lists, and data frames in R.
13. Define a vector in R. Explain different ways to create a vector.
14. Elaborate the statistical and programming features of R.

Section C

Answer any 1 questions. Each carry 14 marks.

15. Explain matrix manipulation in R. Discuss row extraction, column extraction, diagonal extraction, omission of elements, and overwriting of values with suitable illustrations.

16. Explain how probability distributions are implemented in R. Discuss the structure of d, p, q, and r functions using Binomial, Poisson, Normal, and Exponential distributions with suitable R code and interpretation.

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