K25U 2519

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular) Examination, November 2025
(2023 Admission)
CORE COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
5B10 AIML : Introduction to R Programming

Time : 3 Hours Max. Marks : 40

SECTION – A

Answer **all** questions. **(6×1=6)**

1. How will you select all elements greater than 10 from the vector v = (10, 34, 2, 10, 7, 8) ?
2. Which is the function used to check whether a vector is null ?
3. Give R code to create an array of numbers from 1 to 24 of two 3 × 4 matrices with dimension 2.
4. How will you change the age to 35 in a list called my_list ?
5. Name the function to convert table to a dataframe.
6. What does ls() function do ?

SECTION – B

Answer **any 6** questions. **(6×2=12)**

7. What is the use of example() function in R ?
8. Explain the use of all() function in a vector with example.
9. Explain how to create a matrix using dim() function.
10. What is a list ? How will you create list ?

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11. What is lexical scoping ?

12. How will you read data directly from a URL in R ?

13. What does nchar() function do ?

14. Provide the R script for drawing a simple line chart.

SECTION – C

Answer **any 4** questions. **(4×3=12)**

15. Explain vector recycling with an example.

16. Create a matrix of order 3 × 2. Add a column and row using cbind() and rbind() respectively.

17. Explain the use of lapply() function in list with an example.

18. Explain the functions factor(), levels() and str() used with the data structure factor.

19. Explain with an example how to define S3 class in R.

20. Provide the R script for plotting a simple bar plot.

SECTION – D

Answer **any 2** questions. **(2×5=10)**

21. Explain different ways of creating vectors.

22. Explain the characteristics of a dataframe. Create a dataframe and explain the functions names(), nrow(), ncol(), str() and summary() functions with examples.

23. Explain various conditional statements in R.

24. Explain how will you declare and call a function in R.