



**DIPLOMA IN ARTIFICIAL INTELLIGENCE
AND MACHINE LEARNING**

CENTRALIZED QUESTION BANK

1056234340- R PROGRAMMING

**DIRECTORATE OF TECHNICAL
EDUCATION GOVERNMENT OF
TAMILNADU**

DIPLOMA END SEMESTER /YEAR EXAMINATION-2025

Course: Artificial Intelligence and Machine Learning

Subject: R programming

QP Code: 1056234340

Time:3 Hours

Date:

Session:

Max Marks: 100

Answer the Following Questions

1. A) a) Write an R Program to Find the Factors of a Number
b) Write an R Program to check if the given Number is a Prime Number.

B) a) Write an R Program to create a Data Frame and access a Data Frame like a List.
b) Write a program to join columns and rows in a data frame using `cbind ()` and `rbind ()` in R.
2. A) a) Write a program to find list of even numbers from 1 to n using R-Loops.
b) Write an R Program to check if the given Number is a Prime Number.

B) Create a data set and do statistical analysis on the data using R.
3. A) Write an R Program to Find the Fibonacci sequence Using Recursive Function.

B) Write a program to read a csv file and analyze the data in the file in R.
4. A) Implement different String Manipulation functions in R

B) a) Create pie chart using R.
b) Plot a bar plot with matrix using R.
5. A) a) Write an R Program to Find the Factors of a Number
b) Write an R Program to check if the given Number is a Prime Number.

B) Write a program to read a csv file and analyze the data in the file in R.
6. A) a) Write a program to find list of even numbers from 1 to n using R-Loops.
b) Write an R Program to check if the given Number is a Prime Number.

B) a) Create pie chart using R.
b) Plot a bar plot with matrix using R.
7. A) Write an R Program to
 - a) Create a vector v1 with elements 1 to 10.
 - b) Add 2 to every element of the vector v1.
 - c) Divide every element in v1 by 5
 - d) Create a vector v2 with elements from 11 to 20. Now add v1 to v2.
B) Write a program to read a csv file and analyze the data in the file in R.
8. A) Create a function in R to print squares of numbers in sequence

B) Create a data set and do statistical analysis on the data using R.
9. A) Implement different String Manipulation functions in R

- B) Write a program to read a csv file and analyze the data in the file in R.
10. A) a) Write an R Program to Find the Factors of a Number
b) Write an R Program to check if the given Number is a Prime Number.
- B) a) Create pie chart using R.
b) Plot a bar plot with matrix using R.
11. A) a) Write a program to find list of even numbers from 1 to n using R-Loops.
b) Write an R Program to check if the given Number is a Prime Number.
- B) Write a program to read a csv file and analyze the data in the file in R.
12. A) Write an R Program to
a) Create a vector v1 with elements 1 to 10.
b) Add 2 to every element of the vector v1.
c) Divide every element in v1 by 5
d) Create a vector v2 with elements from 11 to 20. Now add v1 to v2.
- B) a) Create pie chart using R.
b) Plot a bar plot with matrix using R.
13. A) Implement different String Manipulation functions in R
- B) Write an R Program to create a Factor and Access and Modify Components of a Factor.
14. A) Implement different String Manipulation functions in R
- B) a) Write an R Program to create a Data Frame and access a Data Frame like a List.
b) Write a program to join columns and rows in a data frame using cbind() and rbind() in R.
15. A) a) Write an R Program to Find the Factors of a Number
b) Write an R Program to check if the given Number is a Prime Number.
- B) Create a data set and do statistical analysis on the data using R.
16. A) a) Write a program to find list of even numbers from 1 to n using R-Loops.
b) Write an R Program to check if the given Number is a Prime Number.
- B) a) Write an R Program to create a Data Frame and access a Data Frame like a List.
b) Write a program to join columns and rows in a data frame using cbind() and rbind() in R.

17. A) a) Write a program to find list of even numbers from 1 to n using R-Loops.
b) Write an R Program to check if the given Number is a Prime Number.
B) Write an R Program to create a Factor and Access and Modify Components of a Factor.
18. A) Write an R Program to Find the Fibonacci sequence Using Recursive Function.
B) a) Create pie chart using R.
b) Plot a bar plot with matrix using R.
19. A) Implement different String Manipulation functions in R
B) Create a data set and do statistical analysis on the data using R.
20. A) a) Write an R Program to Find the Factors of a Number
b) Write an R Program to check if the given Number is a Prime Number.
B) Write an R Program to create a Factor and Access and Modify Components of a Factor.

Allocation Of Marks

S.No	Description	Marks
1	Aim(05) Program from Part A (30)	35
2	Aim(05) Program from Part B(30)	35
3	Executing any one program (Part A or Part B)	15
4	Output	10
5	VivaVoce	5
TOTAL		100