M. M. Institute of Computer Technology & Business Management M.M. (Deemed to be University), Mullana	Assignment-01

Session : 2025-26 (Even)	Class/Semester: BCA – 6th Semester – Sec(DS2)
Subject Code:BCA-601	Subject Name: R Programming
Lecture : 3	Tutorial : 0
Max. Marks Theory: 60	Max. Marks Sessional: 40	Credits : 3.0
Assigned Date: 23-01-26	Submission Date: 27-01-26	Distributed Date : 23-01-26

Q. No.	Question	Marks
1	Write a simple R program to print "Hello, World!" to the console.	1
2	In what areas is R primarily used, and why is it popular in data science?	1
3	How would you assign a value to a variable in R? Write the syntax for assignment using both the <- and = operators.	1
4	Describe the difference between the == operator and the = operator in R.	1
5	What is the length of x? x <- 5:10	1
6	Create a vector of integers in R. How can you check the type of the vector after its creation?	1
7	How would you handle missing data (NA) in R? Provide a method and demonstrate with an example.	2
8	What is subsetting in R? Provide an example using a vector.	2
9	List and explain the main data types in R. How do they differ from each other?	4
10	What are the best practices for naming variables in R? Evaluate how these practices contribute to writing clean and maintainable code.	4
11	List and describe the key features of the R programming language. Evaluate why these features make R suitable for data science applications.	6
12	Explain the use of operators in R and the BODMAS rule. Solve the following equation and explain your approach step by step: $5 + 4 * 9 \ \%\% \ (3 + 1) \ / \ 6 - 1$	6

Assignment Outcome (AO):
      i) Gain proficiency in basic R syntax, including printing output, creating variables, and handling simple data types like vectors and numbers.
      ii) Develop an understanding of key data operations in R such as subsetting, handling missing data (NA), and performing assignments using both <- and = operators.

Course Outcome:

CO1	Learn basics of R Programming with Vector, List, Matrices, Data Frame, etc..
CO2	Design and interpret programs involving decision structures, loops, functions, arrays and strings.
CO3	Design and Apply programs in various applications.
CO4	Analysis on datasets with various graphical functions in R.
CO5	Able to apply R programming from a statistical perspective and use of various visualization tools.

Bloom's Taxonomy Level (BTL):
    1. Remembering   2. Understanding 3. Applying 4. Analyzing   5. Evaluating   6. Creating

Question wise Mapping Matrix (with AO,CO,BTL)													Weightage(in%age)	
Q. No.	1	2	2	4	5	6	7	8	9	10	11	12	**AO**	**1:**50% **2:**50%
AO No.	2	1	2	2	1	1	2	2	1	1	1	2	**CO**	**1:**100%
CO No.	1	1	1	1	1	1	1	1	1	1	1	1	**BTL**	**1:**8% , **2:**17%,**3:**25%,4:25%, **5:**17,**6:**8%
BTL	1	2	3	4	4	3	3	4	2	5	5	6		
Marks	1	1	1	1	1	1	2	2	4	4	6	6		