

Satyug Darshan Institute of Technology, Faridabad

	Programme: B.Tech CSE	Year:/Semester: 7th
	Subject Name : R Programming	OEC-CS701(III)
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S. No.	Questions	Bloom Taxonomy
	Module1	
	Short Questions	
1	Define R programming language.	1
2	Discuss the functionality of RStudio?	1
3	Differentiate between 32-bit and 64-bit R.	2
5	Write syntax to install a package in R.	1
6	List the various form to create a vectors in R?	1
7	Define data frame.	1
	Long Questions	
1	Define data frame in R programming with suitable examples.	1
2	Differentiate between Python and R.	1
3	Explain different data structures in R with suitable examples.	1
4	Write about the control statements in R.	3
5	Write a program in R to calculate the sum of n natural numbers using a function.	3
6	Write a R Program to create a data frame using two given vector and display the duplicated elements and unique rows of the data frame. Explain with syntax.	3
7	Create two lists: one for fruit_name and other one for adjective_name. Write a R Program to pick the adjective for each fruit.	3
8	Write a program to get all prime numbers up to a given number.	3
	Module 2	
	Short Questions	
1	Explain missing data in R.	1
2	List basic data types in R.	1
3	Discuss the use of help() function in R?	1
4	Define CSV and Binary files.	1
5	Explain the importance of Web Scrapping.	1
	Long Questions	
1	List the various steps of working with binary file.	1
2	Define the meaning and importance of web scraping. Write the steps for web scraping giving pseudocode at each step.	1,3

3	Differentiate between base graphics and ggplot2 graphics. What does col and pch attributes represent?	3
4	How can we read Excel and CSV files in R. Explain with examples.	3
5	Explain How can we read Excel and CSV files in R. Explain with examples	1,2
Module 3		
Short Question		
1	Define control statement used in R.	1
2	Explain if-else in R.	1
3	Define switch statement.	1
4	Eplain do.call()?	1
5	Define compound condition.	1
Long Questions		
1	Explain control statements in R with examples.	1
2	Discuss loops in R and their applications.	1
3	Explain writing user-defined functions in R.	1
4	Write a program to calculate the sum of n natural numbers with the help of function?	3
5	Write a program using if-else and loops.	3
6	Explain extraction of data from websites. Write the HTML code for web scrapping with steps.	1,3
7	Write a program to find the maximum and minimum value in any given Matrix and print it's rows and	3
Module 4		
Short Questions		
1	Define apply family functions.	1
2	Define data reshaping.	1
3	Define regular expressions.	1
4	Explain data.table?	1
5	Define string extraction.	1
Long Questions		
1	Explain various joins in R Programming with suitable examples.	1
2	Write a short note on below: cbind(), rbind(), paste(), sprint()	2
3	Define Apply family and the function used in this family in detail with suitable examples	1,2
4	Discuss the data.plyr package with suitable example by using dummy data.	1
Module 5		
Short Questions		
1	Define summary statistics.	1
2	Define regression.	1
3	Explain ANOVA?	1
4	List out the importance of logistic regression?	1
5	Define Cross-Validation	1
6	Illustrate Bootstrap and Step wise Variable selection	1

Long Questions		
1	Explain how to run a logistic regression model on data in a data frame? Give Illustrate with explanation.	1,2
2	Discuss the uses of model diagnostics in R Programming.	1
3	Write a short note on (a) ANOVA (b) Decision Tree (c) Random Forest regression modeling, interpretation of coefficients, residual analysis and model validation.	3
4		3
5	numerical data. Write both the algo as well as pseudocode. In the output of the code a Summary of model should come and an appropriate plot should be included.	3
6	Frame.	3
7	Explain the three strategies of step wise Regression in R.	1
8	Explain the key significance of summary() in R. Also take a suitable example to show the usage of summary()	2

Module 6

Short Questions

1	Define decision tree.	1
2	Discuss how the clustering make a significance impact to us.	1
3	Define k-means.	1
4	What is cross-validation?	1
5	Define random forest.	1

Long Questions

S. No.	Questions	Bloom Taxonomy
1	Define PAM(k-medoids) clustering. How is it implemented in R?	1
2	Discuss the meaning of normal distribution. Write the four inbuilt functions and their syntax provided by R to find the Normal Distribution.	1
3	Discuss decision trees and random forests. How they differ from in performance.	1,2
4	Explain clustering techniques in R with suitable example and Code.	2
5	Discuss the binomial and poisson distribuion with suitable example.	
6	Explain the key significance of summary() in R. Also take a suitable example to show the usage of summary().	1,2

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