

QUESTION BANK OF R-PROGRAMMING

UNIT-I

INTRODUCTION OF R-PROGRAMMING

S.No	Questions	BT	CO	PO	
Part – A (Short Answer Questions)					
1	Why R-programming language?	L2	CO1	PO1	
2	What are the features of R-programming language?	L1	CO1	PO1	
3	What are the applications of R-programming language?	L1	CO1	PO1	
4	What are the advantages of R-programming language?	L1	CO1	PO1	
5	What are the dis-advantages of R-programming?	L1	CO1	PO1	
6	Can you write and explain some of the most common syntaxes in R-programming?	L2	CO1	PO1	
7	Write reading and writing data in R-programming?	L2	CO1	PO1	
8	Write about integers in R-programming?	L2	CO1	PO1	
9	How do you install a package in R programming?	L2	CO1	PO1	
10	How do you assign a variable in R-programming?	L2	CO1	PO1	
Part – B (Long Answer Questions)					
11	a)	Explain about data types in R programming. With an examples	L2	CO1	PO1
	b)	Explain about complex and rounding numbers in R programming with an example	L3	CO1	PO1
12	a)	Explain about sub setting methods in R programming	L3	CO1	PO1
	b)	Explain array object in R programming with an example	L2	CO1	PO1
V 13	a)	Explain about objects in a R programming.	L2	CO1	PO1
	b)	Write R program to demonstrate working with operators(arithmetic,logical,relational and ,assignment operators).	L2	CO1	PO1
14	a)	Explain operators in R programming.	L1	CO1	PO1
	b)	Compare R programming and Python.	L4	CO1	PO1
15	a)	Explain logical and relational operators in R programming. with an examples.	L2	CO1	PO1
	b)	What is the essential need of R language?	L3	CO1	PO1

UNIT-II

CONTROL STRUCTURES AND VECTORS

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	Write a while control structure in a R programming with an example?	L2	CO2	PO2,PO4 ,PO5
2	Write about next and break in R programming?	L2	CO2	PO2,PO4 ,PO5
3	Write a short notes on built in functions in R programming?	L2	CO2	PO2,PO4 ,PO5

4	How to declare the date and time functions in R programming?	L2	CO2	PO2,PO4,PO5	
5	What are the variable scoping rules in R programming?	L1	CO2	PO2,PO4,PO5	
6	Write about character strings in R programming?	L2	CO2	PO2,PO4,PO5	
7	How to find the length of a vector with an example.	L2	CO2	PO2,PO4,PO5	
8	How to extracting elements of a vector using subscripts.	L2	CO2	PO2,PO4,PO5	
9	How to deleting elements of a matrices and arrays.	L3	CO2	PO2,PO4,PO5	
10	Write about scalars in a R programming.	L2	CO2	PO2,PO4,PO5	
Part – B (Long Answer Questions)					
11	a)	Explain about control structures with an example in R programming.	L2	CO2	PO2,PO4,PO5
	b)	Explain about arithmetic and logical operations on vectors.	L3	CO2	PO2,PO4,PO5
12	a)	Explain about types of vectors with an examples in R programming.	L2	CO2	PO2,PO4,PO5
	b)	Write an R program to create a vector and to access elements in a vector.	L4	CO2	PO2,PO4,PO5
13	a)	Explain about vector operations in R programming with an examples.	L3	CO2	PO2,PO4,PO5
	b)	Write a program to create a matrix using cbind() and rbind() functions.	L4	CO2	PO2,PO4,PO5
14	a)	Explain about functions in R programming	L3	CO2	PO2,PO4,PO5
	b)	Explain about vectors and subscripts and generating sequences in R programming.	L2	CO2	PO2,PO4,PO5
15	a)	Explain about multiple and single element vector creation in R programming.	L4	CO2	PO2,PO4,PO5
	b)	Eplain about adding and deleting vector elements. With an examples.	L2	CO2	PO2,PO4,PO5

UNIT-III

LISTS

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	Define the list. give an examples	L1	CO3	PO10,PO8,PO9
2	How to create the list in R programming?	L2	CO3	PO10,PO8,PO9
3	Write about list indexing adding and deleting list	L2	CO3	PO10,PO

		elements in R programming?			8,PO9
4		How to find the size of a list with an example?	L2	CO3	PO10,PO8,PO9
5		How to access the list elements from the list give an example?	L2	CO3	PO10,PO8,PO9
6		How to create data frames in a R programming?	L3	CO3	PO10,PO8,PO9
7		How to create matrix in R programming?	L2	CO3	PO10,PO8,PO9
8		Write about matrix operations in R programming?	L2	CO3	PO10,PO8,PO9
9		How to access the elements from the data frame in R programming?	L2	CO3	PO10,PO8,PO9
10		How to find the length of the data frame in R programming.	L4	CO3	PO10,PO8,PO9
Part – B (Long Answer Questions)					
11	a)	Explain about list operations with an examples.	L2	CO3	PO10,PO8,PO9
	b)	Write a R program create a data frame.	L4	CO3	PO10,PO8,PO9
12	a)	Explain about data frames operations in R programming.	L2	CO3	PO10,PO8,PO9
	b)	Write a R program to access data frame like list.	L4	CO3	PO10,PO8,PO9
13	a)	Explain about list with data frame give an examples	L2	CO3	PO10,PO8,PO9
	b)	Explain about creating and adding of elements to the list give an example.	L3	CO3	PO10,PO8,PO9
14	a)	How to create the student details by using data frame. with an example	L2	CO3	PO10,PO8,PO9
	b)	Explain about accessing and deleting elements from the data frame give an example.	L4	CO3	PO10,PO8,PO9
15	a)	How to convert list to matrix in R programming.	L3	CO3	PO10,PO8,PO9
	b)	Explain about accessing and deleting elements from the list give an example	L3	CO3	PO10,PO8,PO9

UNIT-IV

FACTORS AND TABLES

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	Define the factors. give an example	L1	CO4	PO4,PO5 P10,P12
2	How to create and access components of a factor.	L2	CO4	PO4,PO5 P10,P12

3		How to change the order of levels of factors in R programming.	L3	CO4	PO4,PO5 P10,P12
4		Write about generating factor levels in R programming.	L2	CO4	PO4,PO5 P10,P12
5		How to modify a factors in R programming.	L2	CO4	PO4,PO5 P10,P12
6		Write about attributes of factors .	L1	CO4	PO4,PO5 P10,P12
7		How to create a table in R?	L3	CO4	PO4,PO5 P10,P12
8		How to find the largest cell of table in R?	L1	CO4	PO4,PO5 P10,P12
9		How to add the levels to the factor?	L2	CO4	PO4,PO5 P10,P12
10		What are operations of a table in R?	L2	CO4	PO4,PO5 P10,P12
Part – B (Long Answer Questions)					
11	a)	Explain about factor object operations in R.	L3	CO4	PO4,PO5 P10,P12
	b)	Explain about attributes of a factor in R.	L2	CO4	PO4,PO5 P10,P12
12	a)	Explain about generating factor levels by using gl().	L3	CO4	PO4,PO5 P10,P12
	b)	Write a R program to access and modify components of a object.	L4	CO4	PO4,PO5 P10,P12
13	a)	Explain about operations of a table in R.	L3	CO4	PO4,PO5 P10,P12
	b)	Explain about statistical functions in R.	L1	CO4	PO4,PO5 P10,P12
14	a)	Explain about mathematical functions in R.	L1	CO4	PO4,PO5 P10,P12
	b)	Write a R program to create a factor.	L4	CO4	PO4,PO5 P10,P12
15	a)	Explain about statistical probability functions with an Examples.	L2	CO4	PO4,PO5 P10,P12
	b)	Write a R program to find the factors of a number.	L4	CO4	PO4,PO5 P10,P12

UNIT-V

OBJECT-ORIENTED PROGRAMMING

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	How to create an S3 class?	L2	CO5	PO2,PO6,PO7, PO4,PO9
2	Write a short notes on classes in R?	L2	CO5	PO2,PO6,PO7,

				PO4,PO9	
3	How to create an S4 class?	L2	CO5	PO2,PO6,PO7, PO4,PO9	
4	Write about reference classes in R?	L2	CO5	PO2,PO6,PO7, PO4,PO9	
5	Write an inheritance of OOP concept in R?	L1	CO5	PO2,PO6,PO7, PO4,PO9	
6	Define abstraction of OOP in R.	L1	CO5	PO2,PO6,PO7, PO4,PO9	
7	Write a functions of S class in R?	L2	CO5	PO2,PO6,PO7, PO4,PO9	
8	Define the class and object in R?	L1	CO5	PO2,PO6,PO7, PO4,PO9	
9	What is the definition of polymorphism?	L1	CO5	PO2,PO6,PO7, PO4,PO9	
10	Write about encapsulation of OOP in R?	L1	CO5	PO2,PO6,PO7, PO4,PO9	
Part – B (Long Answer Questions)					
11	a)	Briefly explain about object-oriented programming concepts in R.	L2	CO5	PO2,PO6,PO7, PO4,PO9
	b)	Write an R program to create an S3 class and S3 object?	L4	CO5	PO2,PO6,PO7, PO4,PO9
12	a)	Explain about objects and classes in R.	L2	CO5	PO2,PO6,PO7, PO4,PO9
	b)	Write an R program to create reference class and modify its methods.	L4	CO5	PO2,PO6,PO7, PO4,PO9
13	a)	Explain about S3 class in R.	L1	CO5	PO2,PO6,PO7, PO4,PO9
	b)	Write an R program to write generic functions in S4 class.	L4	CO5	PO2,PO6,PO7, PO4,PO9
14	a)	Explain about S4 class in R.	L1	CO5	PO2,PO6,PO7, PO4,PO9
	b)	Write an R program to create an S4 class and S4 object.	L4	CO5	PO2,PO6,PO7, PO4,PO9
15	a)	Explain about inheritance of S4 class.	L2	CO5	PO2,PO6,PO7, PO4,PO9
	b)	How to get classes of columns in data frame in R.	L2	CO5	PO2,PO6,PO7, PO4,PO9

* Blooms Taxonomy Level (BT) (L1 – Remembering; L2 – Understanding; L3 – Applying; L4 – Analyzing; L5 – Evaluating; L6 – Creating)

Course Outcomes (CO)

Program Outcomes (PO)