

### Unit wise Question Bank

### UNIT-I

#### INTRODUCTION OF R-PROGRAMMING

S.	No	Questions PART -A	BT	СО	PO
	1	Why R-programming language?	L2	CO1	PO1
	2	What are the features of R-programming language?	L1	CO1	POI
,	3	What are the applications of R-programming language?	L1	CO1	PO1
4	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	L2	CO1	PO1
'	O	syntaxes in R-programming?			
,	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
1	.0	How do you assign a variable in R-programming?	L2	CO1	PO1
	PART-B				
11	a)	Explain about data types in R programming. With an examples	L2	CO1	PO1
11	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
14	b)	Explain array object in R programming with an example	L2	CO1	PO1
	a)	Explain about objects in a R programming.	L2	CO1	PO1
13	1 \	Write R program to demonstrate working with operators	L2	CO1	PO1
	b)	(arithmetic, logical, relational and, assignment operators).			
14	a)	Explain operators in R programming.	L1	CO1	PO1
17	b)	Compare R programming and Python.	L4	CO1	PO1
	a)	Explain logical and relational operators in R programming	L2	CO1	PO1
15	·	with examples.			
	b)	What is the essential need of R language?	L3	CO1	PO1

### UNIT-II CONTROL STRUCTURES AND VECTORS

S. No	Questions PART-A	BT	CO	PO
1	Write a while control structure in a R programming with an example?	L2	CO2	PO2
2	Write about next and break in R programming?	L2		PO2,P O4 PO5
3	Write short notes on built in functions in R Programming?	L2		PO2,P O4, 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
				,1 03
		L2	CO2	PO2,
6	Write about character strings in R programming?			PO4
		τ.Ο	000	,PO5
7	How to find the length of a vector with an example.	L2	CO2	PO2, PO4
<b>'</b>	now to find the length of a vector with an example.			,PO5
	_	L2	CO2	PO2,
8	How to extracting elements of a vector using Sub scripts.			PO4
				,PO5
_	Horry to deleting elements of a matrices and amore	L3	CO2	PO2,
9	How to deleting elements of a matrices and arrays.			PO4 ,PO5
		L2	CO2	PO2,
10	Write about scalars in a R programming.			PO4
				,PO5
	PART-B			
11	a) Explain about control structures with an example in R	L2	CO2	PO2,
	programming.			PO4
				,PO5
	b) Explain about arithmetic and logical operations on vectors.	L3	CO2	PO2,
				PO4 ,PO5
12	a) Explain about types of vectors with examples in R	L2	CO2	PO2,
14	programming.	112	002	PO4
				,PO5
	b) Write an R program to create a vector and to access elements	L4	CO2	PO2,
	in a vector.			PO4
12	a) Explain about vector operations in R programming with an	L3	CO2	,PO5
13	examples.	LS	CO2	PO2, PO4
	champios.			,PO5
	b) Write a program to create a matrix using cbind() and rbind()	L4	CO2	PO2,
	functions.			PO4
				,PO5
14	a) Explain about functions in R programming	L3	CO2	PO2,
				PO4 ,PO5
	b) Explain about vectors and subscripts and generating	L2	CO2	PO2,
	sequences in R programming.			PO4
	round to to division			,PO5
15	a) Explain about multiple and single element vector creation in	L4	CO2	PO2,
100	R programming.			PO4
	h) Daniela in alegant addings and deletions of the SYSS	τ	000	,PO5
	b) Explain about adding and deleting vector elements. With an	L2	CO2	PO2,
	examples.			PO4 ,PO5
				,r U3

### <u>UNIT-III</u>

S.No	Questions PART-A	ВТ	СО	PO
1	Define the list. give an examples	L1	CO3	PO10,
				PO8,
			~ ~	PO9
2	How to create the list in R programming?	L2	CO3	PO1, PO2
3	Write about list indexing adding and deleting list elements in	L2	CO3	
	R programming	122	000	PO2
	How to find the size of a list with an example?	L2	CO3	PO10
4				,PO8,
		. 0	000	PO9
5	How to access the list elements from the list give an I	L2	CO3	PO10
3	Example ?			,PO8, PO9
	How to create data frames in a R programming?	L3	CO3	PO10
6	now to create data names in a reprogramming.			08,P
				09
	How to create matrix in R programming?	L2	CO3	PO10
7				,PO8,
	777 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		000	PO9
8	Write about matrix operations in R programming?	L2	CO3	PO10,
0				PO9
	How to access the elements from the data frame in R I	L2	CO3	PO10
9	programming?			,PO8,
				PO9
1.0	How to find the length of the data frame in R Programming.	L4	CO3	PO10
10				,PO8, PO9
	PART-B			103
			000	D00
	Explain about list operations with examples.	L2	CO3	PO8, PO9,
	a)			PO10
11	Write a R program create a data frame.	L4	CO3	PO8,
	b)			PO9,
				PO10
		L2	CO3	PO8,
	a)			PO9, PO10
12 -	Write a R program to access data frame like list.	L4	CO3	PO8,
	b) Write a R program to access data frame fixe.		000	PO9,
	Vour roots to success			PO10
		L2	CO3	PO8,
	a)			PO9,
13		1.2	002	PO10
	Explain about creating and adding of elements to the list b) give an example.	LJ	CO3	PO8, PO9,
	b) give an example.			PO9,
	How to create the student details by using data frame. I	L2	CO3	PO8,
14	a) with an example			PO9,
	F -			PO10

	b)	Explain about accessing and deleting elements from the data frame give an example.	L4	CO3	PO8, PO9, PO10
15	a)	How to convert list to matrix in R programming.	L3	CO3	PO8, PO9, PO10
	b)	Explain about accessing and deleting elements from the list give an example	L3	CO3	PO8, PO9, PO10

### UNIT- IV:

#### FACTORS AND TABLES

S.N		ВТ	CO	PO		
	Define the factors, give an example	L1	CO4	PO4,		
1				PO5,		
				P10,		
	How to create and access components of a factor.	L2	CO4	PO4,		
2				PO5,		
				P10,		
		L3	CO4	PO4,		
3	programming.			PO5,		
				P10,		
	Write about generating factor levels in R programming.	L2	CO4	PO4,		
4				PO5,		
				P10,		
_	How to modify factors in R programming.	L2	CO4	PO4,		
5				PO5,		
			~~.	P10,		
	Write about attributes of factors.	L1	CO4	PO4,		
6				PO5,		
	11 1 70	7.0	004	P10,		
	How to create a table in R?	L3	CO4	PO4,		
7				PO5,		
	TT . (* 1.1 1	7.1	004	P10,		
	How to find the largest cell of table in R?	L1	CO4	PO4,		
8				PO5,		
	TT 4 1141 1 1 4 41 C 4 O	7.0	004	P10,		
_	How to add the levels to the factor?	L2	CO4	PO4,		
9				PO5,		
	Wilest and approximate of a table in DO	L2	CO4	P10,		
10	What are operations of a table in R?	ഥ스	CU4	PO4,		
10	pur roots to success.			PO5, P10,		
			1 10,			
PART-B						
	Explain about factor object operations in R.	L3	CO4	PO4,		
	a)   1			PO5,		
				P10,		
11	Explain about attributes of a factor in R.	L2	CO4	PO4,		
	b)   1			PO5,		
				P10,		

10	a)	Explain about generating factor levels by using gl().	L3	CO4	PO4, PO5, P10,
12	b)	Write a R program to access and modify components of a object.	L4	CO4	PO4, PO5, P10,
10	a)	Explain about operations of a table in R.	L3	CO4	PO4, PO5, P10,
13	b)	Explain about statistical functions in R.	L1	CO4	PO4, PO5, P10,
1.4	a)	Explain about mathematical functions in R.	L1	CO4	PO4, PO5, P10,
14	b)	Write a R program to create a factor.	L4	CO4	PO4, PO5, P10,
15		Explain about statistical probability functions with an Example.	L2	CO4	PO4, PO5, P10,
13	b)	Write a R program to find the factors of a number.	L4	CO4	PO4, PO5, P10,

### UNIT-V:

#### **OBJECT-ORIENTED PROGRAMMING**

S. No	Questions PART-A	BT	CO	PO
	How to create an S3 class?	L2	CO5	PO2,
1				PO6,
				PO7
	Write a short note on classes in R?	L2	CO5	PO2,
2				PO6,
				PO7

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3	3	How to create an S4 class?	L2	CO5	PO7	
2	4	Write about reference classes in R?	L2	CO5	PO2, PO6, PO7	
į	5	Write an inheritance of OOP concept in R?	L1	CO5	PO2, PO6, PO7	
(	5	Define abstraction of OOP in R.	L1	CO5	PO2, PO6, PO7	
,	7	Write a functions of S class in R?	L2	CO5	PO2, PO6, PO7	
8	3	Define the class and object in R?	L1	CO5	PO2, PO6, PO7	
(	9	What is the definition of polymorphism?	L1	CO5	PO2, PO6, PO7	
1	Write about encapsulation of OOP in R?  L1 CO5 PO6, PO7					
		PART-B				
11	a)	Briefly explain about object-oriented programming concepts in R.	L2	CO5	PO2, PO6, PO7	
11	b)	Write an R program to create an S3 class and S3 object?	L4	CO5	PO2, PO6, PO7	
10	a)	Explain about objects and classes in R.	L2	CO5	PO2, PO6, PO7	
12	b)	Write an R program to create reference class and modify its methods.	L4	CO5	PO2, PO6, PO7	
10	a)	Explain about S3 class in R.	L1	CO5	PO2, PO6, PO7	
13	b)	Write an R program to write generic functions in S4 class.	L4	CO5	PO2, PO6, PO7	
14	a)	Explain about S4 class in R.	L1	CO5	PO2,	
- '	b)	Write an R program to create an S4 class and S4 object.	L4	CO5	PO2, PO6,	

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					PO7
15	a)	Explain about inheritance of S4 class.	L2	CO5	PO2, PO6, PO7
13	b)	How to get classes of columns in data frame in R.	L2	CO5	PO2, PO6, PO7

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

**Course Outcomes (CO)** 

**Program Outcomes (PO)** 



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