Course Code: 19MC9115 **R19**

SIDDHARTH GROUP OF INSTITUTIONS:: PUTTUR
(AUTONOMOUS)
Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code: Advanced Programming(Python & R Languages)(19MC9115)

Course & Branch: MCA

Regulation: R19

Year & Sem: II-MCA& I-Sem

UNIT –I
INTRODUCTION, TYPES, OPERATORS AND EXPRESSIONS

1	a) Explain History of Python.	[L2][CO1]	**[06M]**
	b) What are the applications of Python.	[L1][CO1]	**[06M]**
2	What are the keywords using in Python? Explain.	[L1][CO2]	**[12M]**
3	Discuss the following. a) Programming using REPL b) Running Python Scripts	[L6][CO3]	**[12M]**
4	Explain the following. a) Variables b) Input & output	[L5][CO2]	**[12M]**
5	Briefly explain how to run Python scripts.	[L5][CO2]	**[12M]**
6	Identify and explain the operators which are supported by Python. Give examples for them.	[L3][CO2]	**[12M]**
7	Write a brief description on Assignment & Arithmetic Operators. Explain them with suitable examples.	[L5][CO2]	**[12M]**
8	What are the data types supported by Python? Explain with suitable examples.	[L1,L2][CO2]	**[12M]**
9	Define operator. Explain the operators provided by Python.	[L1,L5][CO2]	**[12M]**
10	Explain control flow statements with examples.	[L5][CO2]	**[12M]**

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UNIT –II

DATA STRUCTURES, FUNCTIONS

1	Discuss about tuples and lists with examples.	[L6][CO2]	**[12M]**
2	a) Define function.	[L1][CO2]	[02M]
	b) Explain calling functions & passing arguments with example.	[L5][CO2]	[10M]
3	Identify the importance of modules and explain module with example.	[L3][CO2]	[12M]
4	Discuss about dictionaries & methods.	[L6][CO2]	[12M]
5	Write definition for sequences, slicing & comprehensions. Clearly explain them.	[L1,L2][CO2]	**[12M]**
6	a) What is function?	[L1][CO2]	[02M]
	b) Clearly discuss global and local variables with suitable examples.	[L2][CO2]	[10M]
7	Define and explain anonymous functions & fruitful functions. List out uses.	[L1,L3][CO2]	[12M]
8	What is variable? Analyze and explain about modules.	[L1,L4][CO2]	[12M]
9	What is list? Explain methods & tuples with examples.	[L1,L2][CO2]	[06M]
10	a) What are the uses of Python packages?	[L6][CO2]	**[05M]**
	b) Explain installation of packages via PIP.	[L6][CO2]	**[07M]**

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UNIT –III

OBJECT ORIENTED PROGRAMMING OOP IN PYTHON & ERROR AND EXCEPTIONS

1	How the object oriented programming playing a vital role in python?	[L1][CO2]	**[12M]**
2	Define class. Explain methods with suitable examples.	[L1,L2][CO2]	**[12M]**
3	What is method? Explain Constructor method with example.	[L1,L5][CO2]	**[12M]**
4	Define Inheritance. Discuss inheritance by using example programs.	[L1,L2][CO2]	**[12M]**
5	What are overriding methods? Clearly explain them.	[L1,L2][CO2]	**[12M]**
6	a) Briefly explain data hiding.	[L5][CO2]	**[06M]**
	b) Discuss about self variable.	[L6][CO2]	**[06M]**
7	Compare an error and exception.	[L4][CO2]	**[12M]**
8	How you handle exception in python? Clearly explain with example.	[L1,L2][CO3]	**[12M]**
9	**a)** List out and explain user defined exceptions?	[L3][CO3]	**[06M]**
	b) Briefly explain raising exceptions.	[L2][CO3]	**[06M]**
10	Discuss Error & exceptions clearly.	[L6][CO3]	**[12M]**

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UNIT –IV

INTRODUCING R &WORKING WITH OBJECTS

1	**a)**	List out the importance of R?	[L4][CO4]	**[05M]**
	b)	Briefly discuss about running R program.	[L6][CO4]	**[07M]**
2	**a)**	Briefly explain command packages.	[L5][CO4]	**[06M]**
	b)	Discuss how reading & getting data into R.	[L6][CO4]	**[06M]**
3		Explain the following.	[L2][CO4]	**[12M]**
	a)	Viewed named objects.		
	b)	Types of data items		
4		What are the types of data items? Identify and explain the role of data items.	[L1,L3][CO4]	**[12M]**
5		Explain structure of data items.	[L2][CO4]	**[12M]**
6		Identify and explain how data structure working with History commands.	[L3][CO4]	**[12M]**
7	a)	How you save your work in R?	[L1][CO4]	**[06M]**
	b)	Discuss about manipulating objects.	[L6][CO4]	**[06M]**
8	a)	Explain viewing objects within objects.	[L5][CO4]	**[06M]**
	b)	What is Testing and Converting? Explain.	[L1,L2][CO4]	**[06M]**
9		Discuss how can construct data objects.	[L6][CO4]	**[12M]**
10		Clearly explain forms of data objects.	[L2][CO4]	**[12M]**

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UNIT –V

DATA & INTRODUCTION TO GRAPHICAL ANALYSIS

1	a)	Define descriptive statistics & tabulation.	[L1][CO5]	**[06M]**
	b)	What is distribution? Briefly Explain distribution.	[L1,L2][CO5]	**[06M]**
2	Briefly explain simple hypothesis testing using the Student's t-test.		[L5][CO5]	**[12M]**
3	What is Wilcoxon U-test? Identify and explain the steps involved in U-test.		[L1,L3][CO5]	**[12M]**
4	a)	Define Paired t- and U-Tests. Write a brief description on them.	[L1,L2][CO5]	**[08M]**
	b)	**List out the uses of** Paired t- and U-Tests	[L4][CO5]	**[04M]**
5	Define and explain correlation & covariance.		[L1,L2][CO5]	**[12M]**
6	Explain the following.		[L2][CO5]	**[12M]**
	a)	Box Whisker plots		
	b)	Scatter plots		
7	Discuss the following.		[L6][CO5]	**[12M]**
	a)	Pair plots		
	b)	Line charts, pie charts and Bar Charts		
8	a)	What are the importance of Clevel and Dot Charts?	[L1][CO5]	**[06M]**
	b)	How can copy graphics to other application? Write the importance of exporting graphs.	[L1][CO5]	**[06M]**
9	Clearly explain adding elements to existing plots, matrix plots and matrix plots in one window.		[L5][CO5]	**[12M]**
10	Write your own Scripts for Beginning to program Copy and Paste Scripts, Creating Simple Functions and Making Source Code.		[L2][CO5]	**[12M]**

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