SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

MCA I Year II Semester Regular & Supplementary Examinations June/July-2025
PYTHON

Time: 3 Hours   **Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-1

1 a) Explain various looping statements in python.   CO1   L2   6M
b) Develop a python program to display numbers up to given number. Course Code CO1   L6   6M
20MC9125 R20

OR

2 a) Demonstrate for and while statements in python with example.   CO1   L2   6M
b) Build a python program to check given number is positive or negative or zero.   CO1   L3   6M

UNIT-2

3 a) What is a function? Explain how we can create a function. [L1][CO2] [6M]
b) Explain different ways to pass arguments in a function. With example [L2][CO2] [6M]
7 Distinguish various types of arguments with example program in python . [L5][CO2]
[12M]

OR

4 a) Illustrate the fruitful functions in python with example. [L3][CO2] [6M]
b) Discuss about Anonymous functions in python with an example. [L2][CO2] [6M] 9
Differentiate and explain local and global variable with an example python program.
[L4][CO2] [12M] 10 Illustrate modules in python with an example [L3][CO2] [12M]
Course Code: 20MC9125 R20

UNIT-3

5 OOP IN PYTHON & ERROR AND EXCEPTIONS

OR

6 a) Explain encapsulation in python with an example. [L2][CO3] [6M]
b) What is init method in python? Explain with example. [L2][CO3] [6M] 6 How does
inheritance work in python? Explain it with an example. [L2][CO3] [12M]

UNIT-4

7 a) How do we convert matrix to data frame in R? Explain with example.   CO3   L3   3M
b) How do we convert data frame into a matrix? Explain with example 10 Develop a CO3   L3   9M
complicated data object and discuss viewing in that object. Course Code: 20MC9125
R20

OR

8 a) Calculate Cumulative Sum of a Numeric Object in R Programming   CO3   L2   4M
b) Construct a list data object with an example in R.   CO3   L6   8M

UNIT-5

9

a) Why we use Wilcoxon U -Test? Identify the commands in it. [L4][CO5] [6M]

b) Discuss Two -Sample and One -Sample in U -Test. [L2][CO5] [6M] 4 Choose the following data2 > data2 3 5 7 5 3 2 6 8 5 6 9 4 5 7 3 4 Find the following by using summary statistics commands i) Average of the sample ii) Largest value in the sample iii) Smallest value in the sample iv) How many items are in the sample v) Look at a different data sample [L5][CO5] [12M]

OR

a) Categorize Statistic commands that produce a Single Value as a Summary . [L4][CO5] [6M]

b) List out Summary of Commands to Add Names to Rows and Columns of Data Objects [L1][CO5] [6M]