

**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  $5 \times 12 = 60$  Marks)

**UNIT-1**

1. a) Describe input -output in python with example.
- b) Explain indentation with example. [12 Marks]

**OR**

2. a) Explain various looping statements in python.
- b) Develop a python program to display numbers up to given number. [12 Marks]

**UNIT-2**

3. Compare and explain various data structures in python with examples. [12 Marks]

**OR**

4. Classify various slicing operations on a data structure [12 Marks]

**UNIT-3**

5. Discuss object oriented programming in python with creation of class and object. [12 Marks]

**OR**

6. a) How a class and an object can be created in python.
- b) Create a Student class and initialize it with name and roll number. Design methods for i) Display to display all the information of the student.  
ii) setAge to set the age of the student.  
iii) setMarks to assign marks to the student. [12 Marks]

7. a) List the functions for reading data into R.  
b) List the functions for writing data to files in R. [12 Marks]

**OR**

8. Illustrate various Mathematical Operations available in R Language. With example. [12 Marks]

**UNIT-5**

9. a) Categorize Statistic commands that produce a Single Value as a Summary .  
b) List out Summary of Commands to Add Names to Rows and Columns of Data Objects [12 Marks]

**OR**

10. a) Describe various commands of Cumulative measures in R .  
b) Calculate the cumulative values for the following sample data  
`a <- c(1:9,4,2,4,5:2)` [12 Marks]