



**PARVATHANENI BRAHMAYYA  
SIDDHARTHA COLLEGE OF ARTS & SCIENCE**

*Autonomous*

Siddhartha Nagar, Vijayawada-520010

*Re-accredited at 'A+' by the NAAC*

**23DAMAP121: Python Programming Lab**

**Programme: B. Sc. Hons. (Data Analytics)**

**Teaching Periods: 30**

**Semester: II**

**No. of Credits:1**

| <b>COURSE<br/>OUTCOME NO</b> | <b>Upon successful completion of this<br/>course, the student will be able to</b> | <b>PROGRAM<br/>OUTCOME NO</b> |
|------------------------------|---|-------------------------------|
| <b>CO1</b>                   | Write, Test and Debug Python Programs   | <b>PO1</b>                    |
| <b>CO2</b>                   | Implement Conditionals and Loops for Python Programs                              | <b>PO1,PO2,PO3</b>            |
| <b>CO3</b>                   | Organize code into modules for better code organization and reusability.          | <b>PO2,PO3</b>                |
| <b>CO4</b>                   | Use functions and represent Compound data using Lists, Tuples and Dictionaries    | <b>PO3,PO4</b>                |
| <b>CO5</b>                   | Implement OOP concepts and write applications in python.                          | <b>PO5,PO3</b>                |

**CO-PO MAPPING MATRIX**

|                   | <b>CO - PO</b> | <b>PO1</b> | <b>PO2</b> | <b>PO3</b> | <b>PO4</b> | <b>PO5</b> | <b>PO6</b> |
|-------------------|----------------|------------|------------|------------|------------|------------|------------|
| <b>23DAMAP121</b> | <b>CO1</b>     | H          |            |            |            |            |            |
|                   | <b>CO2</b>     | L          | H          | M          |            |            |            |
|                   | <b>CO3</b>     |            | H          | M          |            |            |            |
|                   | <b>CO4</b>     |            |            | L          | H          |            |            |
|                   | <b>CO5</b>     |            |            | H          |            | L          |            |

**List of Experiments:**

1. Python Program to Find the Square Root
2. Python Program to Swap Two Variables
3. Python Program to Generate a Random Number
4. Python Program to Check if a Number is Odd or Even
5. Python Program to Find the Largest Among Four Numbers
6. Python Program to Check Prime Number
7. Python Program to Check Whether a number is Palindrome or Not
8. Python Program to Display the multiplication Table
9. Python Program to Print the Fibonacci sequence

10. Python Program to Check Armstrong Number
11. Python Program to Find the Sum of Natural Numbers
12. Python Program to Find Factorial of Number Using Recursion
13. Python Program to check given number is prime or not using functions.
14. Python Program to demonstrate usage of keyword, default and variable length arguments.
15. Python Program for lambda functions.
16. Python Program to create module and import it.
17. Python Program to create a list and perform operations on its contents.
18. Python Program to perform operations on tuples.
19. Python Program to create a dictionary and print its content.
20. Python program to perform operations on sets.
21. Python Program for inheritance.
22. Python Program for method overriding.
23. Python Program for exception handling.

### **Model Paper : Practicals**

#### **23DAMAP121: Python Programming Lab**

**SECTION: B.Sc. (Honours) Data Analytics**

**SEMESTER: II**

**Max. Marks : 50 (CIA: 15 + SEE: 35)**

**Hrs/Week: 2**

**Time: 3 Hrs**

**Max. Marks : 35**

#### **Section - A**

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|-----------------|------|
| 1. Experiment 1 | 15 M |
| 2. Experiment 2 | 10 M |

#### **Section – B**

|           |      |
|-----------|------|
| Viva Voce | 10 M |
|-----------|------|

|                                       |             |
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| <b>CONTINUOUS ASSESMENT(Internal)</b> | <b>15 M</b> |
|---------------------------------------|-------------|

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|-------|------|
| Total | 50 M |
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