

**SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)**

**(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.**

B.Sc. END SEMESTER EXAMINATIONS APRIL-2022

SEMESTER - VI

21UCSCT6008 - Python for Scientific Computing

Total Duration : 3 Hrs.

Total Marks : 60

Section A

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. What are Variables and Expressions ?
2. Write a python program to swap two numbers.
3. Write a python program to find a given number is odd or even using function.
4. Give a short note on different types of loops supported by python.
5. Write a note on regular expressions and its use.
6. Write briefly about class and object.
7. Write a program to illustrate numpy basic statistics.
8. Differentiate loc and iloc in pandas

Section B

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Discuss in different operators in python.
10. What do you mean by methods associated with python data structures?
Give 5 examples for methods present in list and dictionary.
11. Explain Inheritance in python with example.
12. Give a detailed program to illustrate matplotlib library in python.
13. Discuss in detail about grouping and aggregate function in python.
Illustrate the same with own dataset using pandas.
