Day : Friday   Time : 10:00 AM-01:00 PM
Date : 5/8/2022   **S-24103-2022**   Max. Marks : 60

N.B :
1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Use of non-programmable **CALCULATOR** is allowed.
4) Draw neat and labeled diagram **WHEREVER** necessary.
5) Assume suitable data if necessary.

Q.1   Explain the Identifiers, Keywords, Statements, Expressions, and Variables in   **[10]**
          Python with examples.

                                        OR

Q.1   Write Python program to count the total number of vowels, consonants and   **[10]**
          blanks in a string.

Q.2   Write Python code to find Mean, Variance and Standard Deviation for a list   **[10]**
          of numbers using functions.

                                        OR

Q.2   Write a program to find total number of occurrences of a word in a file.   **[10]**

Q.3   Write a program to raise a user defined exception.   **[10]**

                                        OR

Q.3   Write a note on Checked exceptions and Unchecked exceptions in Python.   **[10]**

Q.4   How does polymorphism work in python? Explain it with an example.   **[10]**

                                        OR

Q.4   How does Encapsulation work in Python? Explain it with an example.   **[10]**

Q.5   Draw and explain Life Cycle of a Thread.   **[10]**

                                        OR

Q.5   Differentiate between multithreading and multiprocessing with examples.   **[10]**

Q.6   What is the difference between Array Indexing, Integer Array Indexing and   **[10]**
          Boolean Array Indexing in Python? Explain it with suitable example using
          Python program.

                                        OR

Q.6   Explain Broadcasting Mechanism in NumPy array in Python. Discuss it with   **[10]**
          suitable examples.

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