MCA/1ST SEM/SURPRISE TEST II/MCA1102/2023
PROGRAMMING WITH PYTHON
(MCA1102)

Time Allotted: 25 min **Marks: [2 + 4 + 4] = 10**

1. Argue in favour of or against the following statements:

   (i) A dictionary can have a list as a key or a value.

   (ii) A dictionary can have any tuple as a key.

[(CO2)(Analyse/IOCQ)]

2. Explain with apposite example(s) the difference between shallow copy and deep copy of a list.

[(CO2)(Understand/LOCQ)]

3. Workout the output of the following:

   (i)
   ```
   myStr = "MCA students"[1: :3][ : :-1]
   print(myStr)
   ```

   (ii)
   ```
   students = {'roll': 66, 'marks': [66, 99, 88]}
   students.update({'roll': 77, 'age': 22})
   print(students)
   ```

   (iii)
   ```
   setA = {1, 2, 3, 5, 7, 9}
   setB = {2, 3, 5, 7, 11}
   setC = setA.symmetric_difference(setB)
   ```
   Members of SetC are _____.

   (iv)
   ```
   marks = (95, 97, 84, 63, 89, 77)
   comp, *elective, major, minor = marks
   print(major, minor, elective[ : 2], comp)
   ```

[(CO2)(Apply/IOCQ)]

Course Outcome:

After the completion of the course students will be able to

CO1 Develop simple Python programs using Python statements and expressions.
CO2 Demonstrate use of lists, tuples, sets and dictionaries to represent compound data.
CO3 Explain control flow and functions in Python for solving problems.
CO4 Articulate object-oriented programming concepts such as encapsulation, inheritance and polymorphism as used in Python.
CO5 Illustrate the commonly used operations involving file systems handling in Python.
CO6 Explore Python libraries like NumPy, Matplotlib and Pandas for mathematical functions, visualization, and data access.

*LOCQ: Lower Order Cognitive Question; IOCQ: Intermediate Order Cognitive Question; HOCQ: Higher Order Cognitive Question