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Total No. of Pages :02

Total No. of Questions : 09

MCA(Sem.-1)
PROGRAMMING IN PYTHON
Subject Code :PGCA-1951
M. Code : 79036
Date of Examination : 07-01-2026

Time : 3 Hrs.

Max. Marks :70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION - B & C have **FOUR** questions each.
3. Attempt any **FIVE** questions from **SECTION B& C** carrying **TEN** marks each.
4. Select atleast **TWO** questions from **SECTION - B & C**.

SECTION-A

1. Answer briefly :

- a. Give basic features of Python programming language.
- b. What are the advantages of creating separate environments under Python?
- c. Give one example to print sum of numbers between 1-15 using list comprehensive.
- d. Define Lambda function and give its example to compute squared sum of two numbers.
- e. Give any four list methods with example of each.
- f. Differentiate with examples of each built-in and user-defined Python functions.
- g. How slice operator is used to extract desired data from a list of lists?
- h. Write a dictionary **Emp** to store **EmpName** and **Salary** for 5 employees.
- i. How normal and negative indexing is used in Tuple?
- j. Create a tuple from an existing list.

SECTION - B

2. Discuss the difference between mutable and immutable data types in Python. Also, give examples of primary built-in Python data types.
3. How the local and global variables scope is handled in a Python program?
4. Give example to pass Command Line Interface (CLI) arguments in Python functions. How and why *args and **kwargs are used with user defined functions?
5. Discuss core principles of object-oriented programming in context with Python. Give suitable example to justify your answer.

SECTION - C

6. Explain Python File structure. How data file is created? Give example to open a new data File in Python to store a text paragraph.
7. Give examples of decision making and control flow structures in Python. Write a procedure to find prime numbers between 1-300 integers and print only primes.
8. What do you mean by an exception? How and why these are raised and handled in a Python program? Justify your answer with suitable example.
9. Give examples of five methods each of sets and tuples to apply on data of your choice.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.