CB

TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF COMPUTER APPLICATIONS
EXAMINATION: JUNE - 2025
SEMESTER - III
Sub : Python Programming (MCA- 301-22)

Date: 12/06/2025 **Total Marks: 60** **Time: 2.00 pm To 4.30 pm**

Instruction:

1. *All questions are compulsory unless and otherwise stated.*
2. *Bold figures to the right of every question are the maximum marks for that question.*
3. *Candidates are advised to attempt questions in order.*
4. *Answers written illegibly are likely to be marked zero.*
5. *Use of scientific calculators, Log tables, Mollier Charts is allowed.*
6. *Draw neat and labelled diagram wherever necessary.*

Q. 1. Answer the following in 2 - 3 lines. (Any 5) **(10)**

1. Why Python is called as high-level programming language?
2. Write a note on break and continue statement.
3. What do you mean by mutable list in python?
4. What is pass statement in python?
5. How to create tuple in python?
6. Define package and module in python.
7. What is dir() Function in python.

Q. 2. Answer the following in short. (Any 4) **(20)**

1. Explain control statements in python with example.
2. Define Set. Explain any two SET operations in python with example.
3. Write a python program to display Fibonacci series up to 10 terms using while loop.
4. Explain some commonly used built-in modules in python.
5. Explain User-defined Exceptions with suitable example.
6. Write python code to create a Circle class with an attribute radius. Implement a method to calculate the area of the circle.

Q. 3. Answer the following in detail. (Any 3) **(30)**

1. What is key-value pair? Explain steps for creating, initializing and accessing the elements in a dictionary.
2. Explain the steps of database connectivity in python with suitable example.
3. What is file handling? How to write information into a file using python, explain with suitable example.
4. Write a Python program to perform following list operation
   a. Add element
   b. Remove element
   c. Find length
   d. Find max number
   e. fine min number
5. How does inheritance work in python? Explain it with an example.