

TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF SCIENCE (M.Sc) in COMPUTER APPLICATIONS
EXAMINATION : DECEMBER - 2025
SEMESTER - III

Sub : Python Programming (MSC- 306-22)

Date : 24/12/2025

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. What is slicing in Python?
2. How is memory managed in Python?
3. What are lambda functions?
4. Why Python is called a high-level programming language?
5. Write a Python program to find the maximum value in a list.
6. Why is finalize used?
7. Explain string concatenation in python with example

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

1. What are global, protected, and private attributes in Python?
2. Explain control statements in Python with example.
3. Define Set. Explain any four SET operations in detail.
4. Describe lists, tuples with example and differences.
5. Define key-value pair. Explain steps to create, initialize and access elements in a dictionary.
6. Write a short note on Python libraries.

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

1. Explain the steps for database connectivity in Python with example.
2. What is file in python? What are the different file handling modes available in python.
3. Explain the four OOP principles in Python with suitable examples.
4. Explain Python packages and modules in detail. How do you create and import them?
5. What are different types of errors in python? Define Exceptions. Explain Python exception handling with example.
