

TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF COMPUTER APPLICATIONS
(Specialization in Artificial Intelligence & Machine Learning) /
(Specialization in Data Science)
EXAMINATION :MAY - 2024
SEMESTER - I

Sub: Python Programming (MCAI 23-102/MCDS23-102)

Date :23/05/2024

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 2-3lines. (Any 5)

(10)

1. What is membership and identity operators?
2. Define the type () function.
3. Mention any four features of Python.
4. What are Microservices?
5. What is Django?
6. What is regular expression?
7. Name any two Tkinter widgets with example.

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

(20)

1. Write Python code to determine whether the given string is a Palindrome without using slicing.
2. Explain about Membership operators in python with appropriate examples.
3. Differentiate between tuples and list.
4. Explain private instance variable in python with example.
5. Write a python program to find the factorial of given number.
6. Write ord(), hex(), oct(), chr() and float(),int() type conversion functions with appropriate examples.

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

(30)

1. Explain session data in Python Flask in detail.
2. Illustrate the use of method overriding? Explain with example.
3. Explain different types of arguments in a function with example.
4. Write Python program to count the total number of vowels, consonants and digits and special character in a String.
5. Explain higher order function with respect to lambda expression.
