

Dr. Babasaheb Ambedkar Open University
Term End Examination February – 2026

Course	: MSCDS	Date	: 26/02/2026
Subject Code	: MSCDS-204	Time	: 11:30am to 01:45pm
Subject Name	: Problem Solving Using Python	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (20)

1. Explain different categories of operators supported by Python.
2. Explain control flow statements in Python.
3. Explain looping statements in Python.
4. Explain lists and tuples in Python. Compare lists and tuples and discuss their common operations with examples.
5. Explain sets in Python. Discuss set creation and different set operations

Section B

Answer the following (Attempt any four) (15)

1. Define variables in Python and explain the rules for naming identifiers.
2. What is a function? Explain the need for functions in Python.
3. How can a user-defined module be created and imported in Python?
4. How are keys and values stored in a dictionary? Explain with an example.
5. Define class and object in Python with an example.
6. What is an exception? How is it handled in Python?

Section C

Part – A (Multiple Choice Questions) (10)

- Which symbol is used to define a block of code in Python?
A Curly braces {}
B Begin-End
C Indentation
D Semicolon ;
- Which of the following is a valid variable name in Python?
A 2marks
B marks_of_student
C marks-of-student
D marks of student
- What will be the output of 5 // 2?
A 2.5
B 3
C 2
D 2.0
- Which keyword is used to define a function in Python?
A function
B def
C define
D fun
- Which keyword is used to import a module in Python?
A import
B include
C require
D module
- Which data structure is mutable?
A Tuple
B List
C String
D Set
- A dictionary stores data in the form of _____.
A Key and value
B Index and value
C Value only
D Index only

- 8 Which data structure does not allow duplicate values?
A List B Tuple
C Dictionary D Set
- 9 Strings in Python are _____.
A Immutable B Dynamic
C Mutable D Numeric
- 10 Which library is commonly used for GUI in Python?
A numpy B pandas
C scipy D tkinter

Part – B (Do as Directed)

(10)

State whether the following statements are true or false

- 1 Python programs must be compiled before execution.
- 2 Python is a dynamically typed programming language.
- 3 Explicit type casting in Python requires built-in conversion functions.
- 4 Python provides a switch statement for decision making.
- 5 The pass statement is used when no action is required in a loop or condition.
- 6 A function must always contain a return statement.
- 7 Built-in modules must be created by the user before importing.
- 8 Lists support indexing and slicing operations.
- 9 Dictionaries maintain the order of insertion in all Python versions.
- 10 Strings in Python support indexing starting from zero.
