

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

Course	: BSCIT	Date	: 25/02/2026
Subject Code	: BSCIT-405	Time	: 03:00pm to 05:15pm
Subject Name	: Introduction to Python Programming	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain the key features that make Python a popular programming language.
2. What are Python data types? Explain with suitable examples.
3. Define objects and classes in Python with an example.
4. Write a note on commonly used string methods in Python.
5. What is Kivy language? Explain its use in GUI programming.

Section B

Answer the following (Attempt any four) (20)

1. Discuss the differences between mutable and immutable data types in Python
2. Discuss the rules for naming variables in Python with examples.
3. Explain different types of operators in Python with examples.
4. Explain the concept of linked lists in Python.
5. What are the differences between stacks and queues?
6. What are testing frameworks in Python? Explain their importance.

Section C

Part – A (Multiple Choice Questions) (10)

Q-1. Which of the following is a feature of Python?

- | | |
|-------------------------|--|
| A) Platform dependent | B) Difficult to learn |
| C) Interpreted language | D) Requires compilation before execution |

Q-2. Which of these is a valid data type in Python?

- | | |
|---------------------------|------------------------|
| A) integer, float, string | B) int, real, char |
| C) num, text, decimal | D) value, string, bool |

Q-3. Which of the following is a correct variable name in Python?

- | | |
|------------|-------------|
| A) 2value | B) my-value |
| C) value_2 | D) my value |

Q-4. In Python, ** operator is used for:

- | | |
|-------------------|---------------------------|
| A) Division | B) Exponentiation (power) |
| C) Multiplication | D) Floor division |

Q-5. Which control structure is used to check conditions in Python?

- | | |
|-------------|------------|
| A) Loop | B) if-else |
| C) Function | D) List |

Q-6. Which keyword is used to define a function in Python?

- | | |
|-------------|--------|
| A) function | B) fun |
| C) define | D) def |

Q-7. Which of the following is a mutable data structure in Python?

- | | |
|-----------|----------|
| A) String | B) Tuple |
| C) List | D) int |

Q-8. Which method is used to convert a string into lowercase?

- | | |
|--------------|---------------|
| A) lower() | B) down() |
| C) toLower() | D) strlower() |

Q-9. Which of the following OOP concepts allows using the same function name with different forms?

- A) Encapsulation
- B) Inheritance
- C) Polymorphism
- D) Data hiding

Q-10. Which statement is correct for exception handling in Python?

- A) if-else
- B) try-except
- C) catch-finally
- D) error-check

Part – B (State whether the following statements are true or false)

(10)

- 1 Python is a compiled language.
- 2 Variables in Python do not need explicit declaration before use.
- 3 The operator `//` in Python performs floor division.
- 4 `while` loop is an iteration structure in Python.
- 5 Strings in Python are mutable.
- 6 Functions in Python are defined using the keyword `def`.
- 7 Polymorphism means "one name, many forms".
- 8 Multiple inheritance is not supported in Python.
- 9 Exception handling in Python is done using `try` and `except` blocks.
- 10 Python can be used for GUI and Mobile Application Development.
