

GYANMANJARI INNOVATIVE UNIVERSITY

Gyanmanjari Institute of Technology

B.Tech.- End Semester Examination (ESE)- Summer - 2026

Enrollment No.: \_\_\_\_\_

Date: 18/05/2026

Subject Code: BETCE14307

Semester: 4

Subject Name: Python Programming

Total Marks: 100

Time: 10:30AM To 01:30PM

**Instructions:**

1. Question No. 1 is Compulsory.
2. Make Suitable Assumptions wherever necessary.
3. Figures to the right indicate full marks.

	Marks
Q.1 (a) Describe keywords in Python and explain why keywords cannot be used as identifiers.	05
(b) Explain the role of indentation in Python and how it affects program execution.	05
(c) Explain inheritance in Python and describe different types of inheritance with examples.	10
Q.2 (a) Explain formal arguments and actual arguments in Python functions with examples.	05
(b) Explain tuples in Python and discuss why tuples are considered immutable.	05
OR	
(b) Explain the concept of modules in Python and their importance in code reuse.	05
(c) Explain abstraction and its importance in object-oriented programming.	10
OR	
(c) Explain the concept of constructor (__init__ method) in Python classes with example.	10
Q.3 (a) Explain the role of pip in installing external Python libraries.	05
(b) Explain the concept of encapsulation with a suitable example.	05
(c) Explain conditional statements in Python including if, if-else, and if-elif-else ladder with examples.	10

OR

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| (a) Describe common built-in exceptions in Python and how they can be handled. | 05 |
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- (b) Explain the use of the self parameter in Python classes with an example. 05
- (c) Write a Python program to print the multiplication table of a given number using a two loop. 10
- Q.4 (a) Explain the difference between implicit and explicit type casting in Python with suitable examples. 05
- (b) Explain default parameters in Python functions with examples. 05
- (c) Explain how data can be written into files using write() and writelines() methods. 10

OR

- (a) Explain dictionary methods such as keys(), values(), and items() with examples. 05
- (b) Write a Python program to concatenate two lists and display the result. 05
- (c) Describe how to import built-in modules such as math and os with examples. 10
- Q.5 (a) Write a Python program to read a file and count the number of lines in it. 05
- (b) Discuss the advantages of Python as an interpreted language compared to compiled languages. 05
- (c) Compare lists, tuples, sets, and dictionaries in Python based on their features. 10

OR

- (a) Explain the difference between pop() and remove() methods with examples. 05
- (b) Explain how custom exceptions are created and used in Python programs. 05
- (c) Discuss the use of Python libraries such as NumPy, Pandas, and Matplotlib in real-world applications. 10