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Gandhi Institute of Engineering and Technology University, Odisha, Gunupur (GIET University)

B.C.A. (Fourth Semester – Regular/Supplementary) Examinations, April-2026

BCA23401- Fundamental of Python Programming



Time: 3 hrs

Maximum: 60 Marks

(The figures in the right hand margin indicate marks)

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. What is indentation in Python?	CO1	K2
b. Define logical operators in Python	CO2	K1
c. Define positional and keyword arguments.	CO3	K1
d. Define class and object in Python.	CO4	K1
e. Define lambda function in python?	CO3	K2

PART – B

(10 x5=50 Marks)

Answer **ALL** questions

	Marks	CO #	Blooms Level
2. a. Explain the difference between Interactive Mode and Script Mode in Python with examples.	5	CO1	K2
b. Explain the importance of indentation and multi-line statements with examples.	5	CO1	K4
(OR)			
c. Implement a Python program demonstrating multiple assignments and indentation rules.	5	CO1	K3
d. Write a Python program to perform multiple assignments in a single line.	5	CO1	K3
3.a. Compare set, and dictionaries with suitable examples.	5	CO2	K4
b. Describe any 5 String functions with an example.	5	CO2	K3
(OR)			
c. Discuss the ord(), hex(), oct(), complex() and float() type conversion functions with examples.	5	CO3	K2
d. Differentiate between membership, and identity operators.	5	CO3	K3
4.a. Explain different decision-making statements (if, if-else, nested if) with an example.	5	CO3	K2
b. Implement a program to demonstrate positional and keyword arguments.	5	CO3	K3
(OR)			
c. Discuss functional programming concepts: reduce, and lambda	5	CO3	K4
d. Describe any 5 mathematical functions with an example.	5		
5.a. Explain how Python resolves ambiguity in multiple inheritance with an example.	5	CO2	K3
b. Implement a Python program to raise zero division error in outer try block and value error in inner try block using nested exception handling.	5	CO2	K3
(OR)			
c. Explain polymorphism and method overloading with an example.	5	CO4	K4
d. Describe the process of creating and raising a custom exception in Python with an example.	5	CO2	K3

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| 6.a. | Develop a Python application that updates and deletes specific entries from a table based on user input. | 5 | CO5 | K3 |
| b. | Explain how to establish a database connection in Python using SQLite. Write a program to create a table named Student with appropriate fields. | 5 | CO1 | K2 |
| (OR) | | | | |
| c. | Discuss different database connection methods and configurations. | 5 | CO5 | K2 |
| d. | Describe the steps involved in updating records in a database using Python. Write a program to update the age of a student in a table. | 5 | CO2 | K3 |

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