



ECHELON INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

Title of Assignment: Python Programming (BCA-DS-D-201)

Course: BCA, 3rd semester

Date of Issue: 10th August, 2023

Session: July 2023-Dec. 2023

Date of Submission: 16th August. 2023

Course Unit included: 1st

Max. Marks: 30

Assignment Number: 1st

Question No.1

What is Python? Explain its features and applications. 10

Question No.2

Explain Python datatypes with examples and diagram. 10

Question No.3

- i. What are Python Keywords? 10
- ii. What are Python Literals?
- iii. What are Python Operators?

Faculty Signature
Dr. Manish Kumar



ECHELON INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

Title of Assignment: Python Programming (BCA-DS-D-201)

Course: BCA, 3rd semester
Date of Issue: 7th Sept, 2023

Session: July 2023-Dec. 2023
Date of Submission: 11th Sept. 2023

Course Unit included: 2nd

Max. Marks: 30

Assignment Number: 2nd

Question No.1

Explain the concept of Global and Local variable using suitable example. 10

Question No.2

What are functions? Describe recursive and lambda functions with suitable example. 10

Question No.3

- i. Differentiate between List and Tuple? 10
- ii. Write a program to reverse the list using slicing technique ?
- iii. What are Tuples in python? Explain.

Faculty Signature
Dr. Manish Kumar

Echelon Institute of Technology, Faridabad

Assignment No– 3 : Odd Semester 2023-24

Course/Branch	: BCA/DS	Semester	: 3rd
Subject Name	: Python Programming	Max. Marks	: 20
Subject Code	: BCA-DS-201		

CO-3 : *On completion of this course, the student will be able to solve or write Programs efficiently in Python.*

Q.1 : Attempt all the questions (Short Answer Type). (2 x 4 = 8 Marks)

- a) What is a Class?
- b) What is an Object?
- c) What is `__init__()` method in Python?
- d) What is `__del__()` method in Python?

Q.2: What are OOPs Concepts in Python ? Explain
[4]

Q.3.: What is Inheritance in Python? Explain each type with diagram?
[4]

Q4 : Explain the concept of Random module in Python with example.
[4]

Echelon Institute of Technology, Faridabad

Assignment No– 4 : Odd Semester 2023-24

Course/Branch	: BCA/DS	Semester	: 3rd
Subject Name	: Python Programming	Max. Marks	: 20
Subject Code	: BCA-DS-201		

CO-3 : *On completion of this course, the student will be able to solve or write Programs efficiently in Python.*

1. Short Answer

- a. What is a file and its types?
- b. What is the need of file handling? Explain.
- c. What is the use of scipy library?
- d. What is the difference between grayscale and RGB?

2. Long Answer Question

- a. What is image processing in python? How you can perform image processing using various libraries in python.
- b. How you can translate an image and how you can perform edge detection in an image.
- c. What is a binary file? How you can perform read and write operations on binary files in file handling.