CHAPTER 1. Introduction & Syntax of Python Program [8 marks]

Q.1. What is Python Programming language? Explain features of Python.

2. Explain Python Building Blocks.

3. Write different data types in Python with suitable example.

4. Explain different modes in Python.

5. Describe identation in Python.

6. How to give single & multiline comment in Python.

CHAPTER 2. Python Operators & Control Flow Statements [10 marks]

Q.1 Describe Comparison Operators in Python with example.

2. Describe bitwise operators in Python with example.

3. Explain membership & assignment operators with example.

4. Explain Arithmetic operators in Python with example.

5. Explain Python operator Precedence & Associativity.

6. Explain decision making statements if - else, if, if - elif - else, nested if statement with example.

9. Write Python Program to perform following operations on Set
   (i) Create set
   (ii) Access set element
   (iii) Update set
   (iv) Delete set.

10. WAP to create dictionary of student that includes their ROLL NO and NAME
    (i) Add three students in above dictionary
    (ii) Update name = 'Shreyas' of ROLL NO = 2
    (iii) Delete information of ROLL NO = 1

11. Explain four built-in tuple functions in Python with example.

12. Explain built-in functions of list with example.

13. Explain built-in functions of set with example.

14. Explain built-in functions of dictionaries with example.

15. Explain operations performed on Tuple with example.

CHAPTER 4. Python Functions, Modules and Packages [14 marks]

Q.1. Explain how to use user defined functions in Python with example.

2. Write use of lamda function in Python.

3. Explain local & Global variable with appropriate example.

4. Explain use of format() method with example.

5. Write about different types of arguments in a function.

6. Explain module. How to define module.

7. Explain Namespace & scoping in Python.

8. WAP for importing module for addition & subtraction of two numbers.

9. Write a program illustrating use of user defined package in Python.

10. Explain package Numpy with example.

11. Explain package math & scipy with example.

12. Explain package matplotlib & pandas with example.

13. Explain use of Python built-in functions with example. (type/data conversion functions, math functions. etc.)

7. What is command line argument? Write Python code to add two numbers given as input from command line arguments & print its sum.

8. Write Python Program to illustrate if else ladder.

9. Explain Loop Manipulation / Loop Control statements in Python with suitable example;

10. List identity operators in Python.

CHAPTER 3. Data Structures in Python [14 marks]

Q.1 Difference between list & tuple.

2. Describe Tuple in Python.

3. Write basic operations of list

4. Compare list & Dictionary.

5. Explain mutable & immutable data structures.

6. Write any four methods of dictionary

7. Explain indexing & slicing in list with example

8. Write Python code for finding greatest among four numbers using list.

CHAPTER	5. Object Oriented Programming in Python. [12 marks]

Q.1 Explain different object oriented features supported by Python.

2. Define class & object in Python. Write syntax of defining class.

3. Illustrate with example method overloading in Python.

4. What is inheritance? List different types of inheritance.

5. WAP to implement the concept of inheritance in Python.

6. Illustrate with example method overriding in Python.

7. Design a class student with data members; Name, roll number, address.

8. Create suitable method for reading & printing student details.

9. Create a parent class named Animals & a child class Herbivorous which will extend the class Animal. In the child class Herbivorous over side the method feed(). Create a object.

10. Write a Program to create class EMPLOYEE. with ID and NAME & display its contents.

11. How to declare a constructor method in Python? Explain

12. Describe the term composition classes with example.

CHAPTER 6. File I/O Handling & Exception Handling. [12 marks]

Q.1 List file operations in Python & explain

2. List different modes of opening file in Python & explain

3. Explain open () & close method for opening & closing a file.

4. Write python program to read contents of abc .txt & write same content to pqr.txt

5. Write Python code to count frequency of each characters in a given file.

6. Write a program to open a file in write mode & append some content at the end of the file.

7. Explain Exception Handling in Python in detail.

8. Describe the term file I/O handling in detail.

9. Explain try - catch block used in exception handling in Python with example.

10. Explain user defined exceptions in Python with example.