Subject Code: 2648601   **Date: 22/ 03/ 2021**
Subject Name: Python
Time: 9:30 to 11:30   **Total Marks: 50**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1 **(a)** 1) Define following terms and give example: (4)   **08**
      i. List Cloning
      ii. __str__(self) method
      iii. String Slicing
      iv. Assert Statement

2) Write the correct answer for the following questions: (4)
    i. Which of the following correct set of mutable sequence objects in Python?
      a) List and Tuple   c) List, Tuple and Dictionary
      b) List and Dictionary   d) Tuple and Dictionary

    ii. Which of the following is used as a constructor in Python class ?
      a) init()   b) init(self)   c) __init__(self)   d) __init__()

    iii. _____ is a mutable sequence object of python which utilizes Hash Table
    technique to search the data with key.
      a) List   b) Tuple   c) Dictionary   d) All of these

    iv. The _____ symbol along with the name of the decorator function can be placed above the definition of the function to be decorated works as an alternate way for decorating a function.
      a) #   b) @   c) $ d) &

(b) 1) List down the data types and operators available in Python.   **03**
2) Explain branching statements available in Python.   **04**

Q.2 **(a)** What do you mean by Exception? Explain how exception handling is done in Python using **07** suitable example.

(b) Briefly explain file handling in python with open(), close(), write() and readlines() **07** methods using appropriate example.

(c) What do you mean by formal arguments and actual arguments? Take example to explain **07** positional, keyword, default and variable length arguments with respect to function call in Python.

OR

Q2 **(a)** Explain user-defined exception in detail with example given below: **07**
Consider the students' roll_no and marks are in the dictionary and check if the marks of a student are not between 0 and 30 then handle the exception and display appropriate message.

(b) Explain lambda function in python with its use in filter() in-built function.   **07**

	(c)	Explain seek() and tell() methods in detail with proper example to read a binary file.	**07**
Q.3	**(a)**	What is data frame? How to create a dataframe? Explain at least three different operations that can be performed on a dataframe with examples.	**07**
	(b)	1. Explain Modules and its uses in Python with example.	**03**
		2. How the class Inheritance is done in python? Explain with example.	**04**

OR

Q.3	**(a)**	Explain following methods of pyplot with example.	**07**
		1. hist()	
		2. pie()	
		3. bar()	
	(b)	What is the use of PyLab in Python? Explain use of plot(), show(), legend() and title() functions of PyLab for any real life example.	**07**

****