GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED – SEMESTER IV- EXAMINATION –SUMMER-2025

Subject Code: 2648601   **Date: 16/06/2025**
Subject Name: Python
Time:10:30 AM TO 01:00 PM   **Total Marks: 70**
Instructions:

    1. **Attempt all questions.**
    2. **Make Suitable assumptions wherever necessary.**
    3. **Figures to the right indicate full marks.**
    4. **Use of simple calculators and non-programmable scientific calculators are permitted.**

Q.1	**(a)**	Explain List, tuple and dictionary in python.	**07**
	(b)	Explain performing queries on data frames with example.	**07**
Q.2	**(a)**	Explain abstract data types.	**07**
	(b)	Write a python program to pass a function as parameter to another function.	**07**
		OR	
	(b)	What is database adapter? Write a Python program to perform insert update and delete operations with the given table: (Student(SNO, SNAME,SPHONENUMBER)).	**07**
Q.3	**(a)**	Explain looping statements available in Python. Specify examples of while and for loop	**07**
	(b)	Explain Lambda function with example.	**07**
		OR	
Q.3	**(a)**	Discuss Histogram and write a program to explain the same.	**07**
	(b)	What is modules? Discuss various ways to import module in python.	**07**
Q.4	**(a)**	Explain Formal arguments, Actual Arguments, Positional Arguments, Keyword Arguments and Default Arguments implementation in functions.	**07**
	(b)	What is inheritance? Write a program to describe inheritance in python.	**07**
		OR	
Q.4	**(a)**	How a 'class' is defined in Python? Explain a class variable and constructor. How data hiding in applied in Python?	**07**
	(b)	What do you mean by exception handling? Explain how exception handling is done in Python in detail.	**07**
Q.5	**(a)**	What is Regular Expression? Explain Special Character and Quantifiers in Regular Expressions in Python.	**07**
	(b)	Explain filter, reduce and map with suitable examples.	**07**
		OR	
Q.5	**(a)**	Explain closing, reading and writing with files.	**07**
	(b)	How to implement constructor overloading in Python? Explain using example.	**07**

****