GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER– III• EXAMINATION – WINTER 2020

Subject Code:4639304   **Date:13/01/2021**
Subject Name:Programming in Python
Time:10:30 AM to 12:30 PM   **Total Marks: 56**
Instructions:
1. **Attempt any FOUR questions out of EIGHT questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Answer the following question.	**07**
		1. What is the use of special variable __name__?	
		2. One key difference between list and tuple.	
		3. One key difference between method and function.	
		4. Use of global keyword.	
		5. List basic elements of python.	
		6. What is abstract data type?	
		7. How regular expressions help in python coding?	
	(b)	What is module in python? Explain it.	**07**
Q.2	**(a)**	Explain Tuples, List and Dictionary in details.	**07**
	(b)	What is recursion? Explain with the example.	**07**
Q.3	**(a)**	What is Exception? Explain exception handling with example	**07**
	(b)	Explain Decorators with example.	**07**
Q.4	**(a)**	What are the advantages of storing data into file? What are the different types of File in python? Write a program to read a text file in Python and print no. of lines and no. of unique words.	**07**
	(b)	What is threading? Explain synchronization in deadlock using threading in python.	**07**
Q.5	**(a)**	What are regular expressions in Python? How to find out that an email id entered by a user is valid or not using the python 're' module.	**07**
	(b)	Explain the different functionality of bar graph, histogram and pie chart in data visualization.	**07**
Q.6	**(a)**	What are the advantages of Function? How to defining a Function, Calling a Function, Returning Results from a Function?	**07**
	(b)	What is Data Frame? List out ways of creating data frame and explain any one with example. Also list out operations on data frame and explain anyone with example.	**07**
Q.7	**(a)**	Explain various python function used to connect with Mysql database.	**07**
	(b)	What is polymorphism? Explain method overloading and operator overloading with example. Write an appropriate code to support your answer.	**07**
Q.8	**(a)**	Explain various python function used to manipulate table (Insert, Update, Delete) with Mysql database	**07**
	(b)	What is the use of MatPlotLib in Python? Explain the use of plot(), show() and title() functions of MatPlotLib.	**07**

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