Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– VIII (NEW) EXAMINATION – WINTER 2021

Subject Code:2180711   **Date:01/12/2021**
Subject Name:Python Programming
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. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	(a)	Explain following terms : 1) Script 2) Command 3) shell	03
	(b)	What is duck typing ? How it is relevant to python ?	04
	(c)	Explain various dimention of comparison of programming languages and explain advantages of python programming language.	07
Q.2	(a)	Give difference beween actual and formal parameters.	03
	(b)	Explain Input() and raw_input() function with proper syntax and example in python.	04
	(c)	Write a python program to implement Iterative and recurssive factorial of given number.	07
		OR	
	(c)	Explain common functions for accessing files and write a program to append data to a file and display contents of that file.	07
Q.3	(a)	Explain various ways of commenting in python programming.	03
	(b)	Write a program in python to implment linear search.	04
	(c)	Explain Dictionary data type in python and write a program to implement convertion of word from one language to other language (for example: English to hindi note: assume suitable data)	07
		OR	
Q.3	(a)	What is higher order programming with respect to python programming?	03
	(b)	Write a program in python to implement binary search.	04
	(c)	Explain List with its associated methods in python and also demonstrate how lists are mutable.	07
Q.4	(a)	What is exception ? What is difference between exception and error?	03
	(b)	Explain Inheritance in python with suitable example.	04
	(c)	Write a Merge sort program in python.	07
		OR	
Q.4	(a)	What is assertion? Explain it with example.	03
	(b)	Explain hashtable in python.	04
	(c)	Why testing is important in software development? Explain different types of testing.	07
Q.5	(a)	Write a Python program to find the substrings within a string using regular expression.	03
	(b)	What is widget? Explain steps to create widgets.	04
	(c)	Wrire a multithreaded program to implement producer consumer problem in python.	07

OR

Q.5	(a)	Draw following using turtle. 1. Square 2. Hexagon 3. Octagon	**03**
	(b)	Write a python program to create simple client server program to send receive data using socket programming.	**04**
	(c)	Write a python GUI program to enter student data like name, enrollment number, gender and college name using proper textboxes and buttons and store data in a file.	**07**

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