

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER-VIII- EXAMINATION- SUMMER 2020

Subject Code: 2180711

Date: 27/10/2020

Subject Name: Python Programming

Time: 02.30 PM TO 05.00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) What is the duck typing philosophy of python?	03
	(b) What is the difference between compiler and Interpreter? Explain How python interpreter works.	04
	(c) Which are the different types of operators in python language? Explain membership and identity operators with examples.	07
Q.2	(a) Explain List comprehension with an example.	03
	(b) Describe following string functions with syntax: title() , strip(), islower(), isupper().	04
	(c) Explain different sequences types with example in python.	07
	OR	
	(c) Explain mutable and immutable data types with example in python.	07
Q.3	(a) Explain the lambda function with syntax and example.	03
	(b) Explain indexing and slicing operation for string manipulation with example in python.	04
	(c) What is the difference between error and exception? Explain exception handling in python with example.	07
	OR	
Q.3	(a) Explain Method Resolution Order in python.	03
	(b) Explain Indexing and Slicing operation for the list with example in python.	04
	(c) What is testing? Explain Black box v/s glass box testing.	07
Q.4	(a) Explain match and search methods with the syntax of the regular expression module in python.	03
	(b) Explain object orientation in python with example.	04
	(c) Differentiate Abstract class and interface with example.	07
	OR	
Q.4	(a) Explain built-in class attributes in a python class.	03
	(b) Write a program to implement a student class with five-member variables and with at least two methods to get and set values.	04
	(c) Explain Inheritance in python with example.	07
Q.5	(a) Write a program to create two threads to print the first 100 numbers.	03
	(b) How to create a Socket in python? Explain with example.	04
	(c) Write a program for a linear search and binary search.	07
	OR	
Q.5	(a) Write a GUI program to create two buttons using Tkinter. When one button pressed another button to disappear and when again pressed the other button to appear.	03
	(b) Write a program to implement Caesar Cipher.	04
	(c) Write a program for bubble sort and quicksort.	07