

## GUJARAT TECHNOLOGICAL UNIVERSITY

**BE - SEMESTER- VIII (New) EXAMINATION – WINTER 2019**

**Subject Code: 2180711**
**Date: 29/11/2019**
**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) Explain Difference between formal and actual parameter with example.	03
	(b) What is Interpreter? Explain How python interpreter works.	04
	(c) What are the differences between python and C language?	07
Q.2	(a) Explain raw_input() function with example.	03
	(b) Write a python program to implement Fibonacci sequence for given input.	04
	(c) Write a python program to implement isPalindrome() function to check given string is palindrome or no.	07
	<b>OR</b>	
	(c) Write a python program to implement Student class which has method to calculate CGPA. Assume suitable class variables.	07
Q.3	(a) Explain different types of comments in python.	03
	(b) Explain Indexing and Slicing operation for string manipulation with example in python.	04
	(c) Explain Lists along with methods associated with lists and explain mutability with respect to Lists.	07
	<b>OR</b>	
Q.3	(a) Explain lambda function along with map and filter functions.	03
	(b) Write a python program to read line by line from a given files file1 & file2 and write into file3.	04
	(c) Explain Tuples, Lists and Dictionaries with example and give comment on mutability for each of them.	07
Q.4	(a) Give difference between black-box and glass-box testing.	03
	(b) Explain usage of try-except and assert keywords.	04
	(c) Write a python program to implement linear search and binary search.	07
	<b>OR</b>	
Q.4	(a) Explain basic idea behind hash table with suitable example.	03
	(b) Write a python program to implement multiple inheritance.	04
	(c) Write a python program to implement merge sort.	07
Q.5	(a) Explain regular expression methods match and search with its parameters.	03
	(b) Write a python program to create a plotting of years of compounding v/s value of principal using pyplot library. Assume reasonable values for principal, interest rate and years	04
	(c) Explain Caesar cipher and Write a python program to implement Caesar cipher.	07



- Q.5**
- (a) What is socket? How to create a socket in python? **03**
  - (b) How to implement threads in python? Explain any one method using suitable example. **04**
  - (c) Write a python GUI program to implement calculator using Tkinter library. **07**

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