

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-VIII (NEW) EXAMINATION – SUMMER 2024**

**Subject Code:2180711**

**Date:14-05-2024**

**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
<b>Q.1</b> (a) How to comment specific line(s) in Python program?	<b>03</b>
(b) What is the duck typing philosophy of python?	<b>04</b>
(c) What is list in Python? Demonstrate use of any three methods of list.	<b>07</b>
<b>Q.2</b> (a) Write a Python program to find reverse of given number.	<b>03</b>
(b) Write a Python program to read a text file and do following: 1. Print no. of words 2. Print no. of lines	<b>04</b>
(c) Explain Dictionary in Python with example.	<b>07</b>
<b>OR</b>	
(c) Write a python program to implement isPalindrome() function to check given string is palindrome or no.	<b>07</b>
<b>Q.3</b> (a) What is the use of islower() and isupper() method?	<b>03</b>
(b) What is Method Resolution Order (MRO)? Explain the principles followed by MRO with example.	<b>04</b>
(c) Write a Python program for a linear search.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Write a difference(s) between black-box and glass-box testing.	<b>03</b>
(b) Write a Python program which will throw exception if the value entered by user is less than zero	<b>04</b>
(c) Write a python program to create a class Employee with data members: name, department and salary. Create suitable methods for reading and printing employee information.	<b>07</b>
<b>Q.4</b> (a) Write a Python program that matches a string that has an 'a' followed by anything, ending in 'b'.	<b>03</b>
(b) Explain the use of assert statement with a python program.	<b>04</b>
(c) Differentiate Abstract class and interface with example.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Explain any two regular expression methods with its parameters.	<b>03</b>
(b) How to create a Socket in python? Explain with example.	<b>04</b>
(c) Write a python program of chat application using socket programming.	<b>07</b>
<b>Q.5</b> (a) Write a short note on Grid attributes in Tkinter.	<b>03</b>
(b) Write a program to implement Caesar Cipher.	<b>04</b>
(c) Explain the major steps used to create widgets. Write a python program to display a label upon clicking a push button.	<b>07</b>

**OR**

- Q.5** (a) Explain the use of any two turtle functions with appropriate example. **03**
- (b) Write a Python program to demo Thread and Process. **04**
- (c) Explain the creation of different types of containers available in Tkinter? **07**  
Elaborate the explanation with suitable example

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