

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-VIII (NEW) EXAMINATION – WINTER 2020****Subject Code:2180711****Date:28/01/2021****Subject Name:Python Programming****Time:02:00 PM TO 04:00 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) What is dictionary in Python? Explain any four built-in dictionary methods with example. **03**
 - (b) What are the key features of Python? **04**
 - (c) Consider the list `lst=[9,8,7,6,5,4,3]`. Write the Python program which performs the following operation without using built-in methods. **07**
 - 1) Insert element 10 at beginning of the list.
 - 2) Insert element 2 at end of the list.
 - 3) Delete the element at index position 5.
 - 4) Print all elements in reverse order.
- Q.2**
- (a) "List is mutable." - Justify with suitable example. **03**
 - (b) Explain all arguments of `print()` method. **04**
 - (c) Write a Python program to generate list of fibonacci number upto n fibonacci numbers. **07**
- Q.3**
- (a) Differentiate List and Tuple in Python. **03**
 - (b) What is negative indexes and how they are used in Python? **04**
 - (c) What is monkey patching in Python explain with suitable example. **07**
- Q.4**
- (a) What is map in Python? Explain with example. **03**
 - (b) What is the difference between range and xrange? **04**
 - (c) Explain while loop & for loop with syntax and example in detail. **07**
- Q.5**
- (a) Explain usage of continue, break, and pass keyword in python. **03**
 - (b) Explain the exception handling in Python. **04**
 - (c) Write a program to sort the given list without using built-in methods. **07**
- Q.6**
- (a) Explain use of import keyword with suitable example. **03**
 - (b) Write a program which demonstrates multiple inheritance. **04**
 - (c) Write a program to search given number from list using binary search. **07**
- Q.7**
- (a) Explain inheritance in Python. **03**
 - (b) Explain any four methods for regular expression with proper example. **04**
 - (c) Write a program which draw square and hexagon using turtle. **07**
- Q.8**
- (a) Explain multi threaded programming in Python. **03**
 - (b) Explain any four method for TCP socket in Python. **04**
 - (c) Write GUI program using Tkinter which handle the button click event. **07**
