

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA - SEMESTER- III EXAMINATION – WINTER - 2017**

**Subject Code:3630006**

**Date:04/01/2018**

**Subject Name: Programming with Python**

**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.

- Q.1 (a)** Answer the following questions (Any 7) **07**
1. Mutability
  2. Cloning
  3. Debugging
  4. Lambda Abstraction
  5. Decomposition
  6. readline()
  7. Hash table
  8. Memoization
  9. Encapsulation
- (b)** Explain the Data Types available in Python. **07**
- Q.2 (a)** Explain Looping statements in Python. Give examples of while and for loop. **07**
- (b)** Explain the use of Global and Non-Local variables with example. **07**
- OR**
- (b)** Differentiate List and Tuple. **07**
- Q.3 (a)** What is the use of Modules in Python? **07**
- (b)** What do you mean by Testing? Explain differences Between Black-Box & Glass-box testing. **07**
- OR**
- Q.3 (a)** Briefly Explain Defensive Programming. **07**
- (b)** What is Exception? Explain Exception Handling in Python. **07**
- Q.4 (a)** Explain how to implement Binary Search with example. **07**
- (b)** What is Inheritance? Explain multiple level inheritances with example. **07**
- OR**
- Q.4 (a)** Describe Magic Methods of Python which are used for overriding. **07**
- (b)** What is the use of Assertions in Python? Explain with example. **07**
- Q.5 (a)** Explain KnapSack problem with example. **07**
- (b)** What is Mortgages? Explain various methods of Mortgages. **07**
- OR**
- Q.5 (a)** What do you mean by Dynamic Programming? Explain using Fibonacci Recursive Function. **07**
- (b)** Explain the use of PyLab in Python. Explain use of plot (), show () and title () functions of PyLab. **07**

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