Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA INTEGRATED - SEMESTER– V • EXAMINATION – SUMMER 2016

Subject Code :4450601 **Date: 11/05/2016**

Subject Name : 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)** Select proper answer from the given choices **07**

1) Which of the following correct set of mutable sequence objects in python ?
   a) List and Tuple c) List, Tuple and Dictionary
   b) List and Dictionary d) Tuple and Dictionary

2) "non-local" variables have meaning only if they are being used under sub function.
   a) True b) Partial True c) False d) Statement Incorrect

3) Which of the following is used to specify EMPTY state of object in Python ?
   a) NULL b) NONE c) NOTHING d) ""

4) Which of the following is correct syntax of "lambda" function used for total of two values ?
   a) total = lambda arg1, arg2: arg1 + arg2;
   b) total = lambda [arg1, argu2[:[arg1 + arg2];
   c) total = lambda arg1+arg2;
   d) total = lambda total(arg1+arg2);

5) If x = "Python", what will be the output of → print(x[0:]) ← ?
   a) "P" b) "Python" c) "n" d) Error

6) Choose the correct syntax of constructor in Python class
   a) init() b) init(self) c) __init__(self) d) __init__()

7) Which of the following needs sorted array ?
   a) Merge Sort b) Binary Search c) Linear Search d) Both a) & b)

(b) State TRUE or FALSE **07**

1) List and Tuple are used for similar concept with different type of syntax.
2) We MUST give default argument in functions of Python.
3) import can be used to import more than one modules at a time.
4) __+__(self, other) method can be used to overload + operator in Python.
5) Assertions are a useful defensive programming tool.
6) Merge Sort indirectly works on Divide-and-Conquer algorithm.
7) pylab.plot([2,5,6]) is the correct syntax of using plotting.

Q.2 **(a)** Explain the difference between List and Tuple. **07**

(b) Briefly explain the data types available in Python. **07**

OR

	(b)	Explain functions with Default Argument example.	**07**
Q.3	**(a)**	Briefly explain “in”, “not in”, “is”, “is not” in Python with example.	**07**
	(b)	Explain Overt Bug and Covert Bug	**07**
		OR	
Q.3	**(a)**	Explain global, local and non-local variables with example.	**07**
	(b)	Explain Persistent Bug and Intermittent Bug	**07**
Q.4	**(a)**	Explain how exception handling is done in Python	**07**
	(b)	What do you mean by Binary Search with example.	**07**
		OR	
Q.4	**(a)**	Explain __add__() to overload + operator with example.	**07**
	(b)	Explain how to implement Selection Sort with example.	**07**
Q.5	**(a)**	What do you mean by KnapSack problem ? Explain with example.	**07**
	(b)	What is the use of PyLab in Python ? Explain use of plot(), show() and title() functions of PyLab.	**07**
		OR	
Q.5	**(a)**	What do you mean by Dynamic Programming ? Explain with the help of Recursive Fibonacci function example.	**07**
	(b)	What do you mean by “rc settings”. Explain “rcParams” in Pylable with example	**07**

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