

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA INTEGRATED SEMESTER-V • EXAMINATION – SUMMER 2017**

**Subject Code:4450601****Date: 27/04/2017****Subject Name:Python (Py)****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.

- Q.1 (a)** Fill in the blanks **07**
- 1) “""" (Triple Quotes) in python are also known as \_\_\_\_\_ which is generally used to write initial description of function.
  - 2) In Python, \_\_\_\_\_ method is used to overload “+” arithmetic operator.
  - 3) \_\_\_\_\_ searching method works only with sorted data items.
  - 4) List is \_\_\_\_\_ object of python.
  - 5) \_\_\_\_\_ function of PyLab is used to set the label of “x” coordinates while drawing graph.
  - 6) A type of testing where tester is aware about the internal structure of the program is known as \_\_\_\_\_.
  - 7) If a = “Hello How Are You”, then print(x[6:]) will print\_\_\_\_\_.
- (b)** State TRUE / FALSE. **07**
- 1) In python “globals” keyword is used to utilize global variables inside the function.
  - 2) In Python, if x=“hi” and y=“hi there”, the print(y in x) will return FALSE.
  - 3) While doing exception handling in Python “else” block is executed only if no exception is raised.
  - 4) When all the data attributes of a class are associated with the object of a class, they are known as instance variables.
  - 5) Persistent bug occurs every time the program is run with the same inputs.
  - 6) The program which is written with the intention of covert bug and intermittent bug is known as Defensive Programming.
  - 7) str\_input() function is used to input string and input() function is used to input integer variable in python.
- Q.2 (a)** What is the difference between local and global variable. Explain the use of global variable inside function of python with example. **07**
- (b)** What do you mean by File Handle ? Explain different modes of opening a file in python. **07**
- OR**
- (b)** Explain following functions of python used for file handling. **07**  
 open(), read(), readline(), readlines(), write()
- Q.3 (a)** Explain features of Python in brief. **07**
- (b)** What do you mean by Debugging ? Explain the difference between Persistent and Intermittent Bug. **07**
- OR**
- Q.3 (a)** Explain Dictionary object in python. **07**
- (b)** What do you mean by Debugging ? Explain the difference between Overt and Covert Bug. **07**
- Q.4 (a)** Write a python program to input details of 10 students (rollno, name, age) and **07**

print after sorting as per their age.

- (b) Explain different components of Exception Handling in Python with an example. **07**

**OR**

- Q.4 (a)** A company has started its business since last 5 years with investment of Rs. 1,00,00,000. The profit ratio of all five year is given as 5%, 8%, -3%, 10% and 11% respectively. Write a program to prepare PyLab graph to show profit. **07**

- (b) What is HashTable ? Explain the use of HashTable with a sample code. **07**

- Q.5 (a)** Explain merge sort with an example. **07**

- (b) What is KnapSack problem ? Explain in detail with an example. **07**

**OR**

- Q.5 (a)** What do you mean by Operator Overloading ? List and Explain various methods which are used for operator overloading in Python. **07**

- (b) What is Module in Python ? Explain how to create and utilize module in Python. **07**

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