Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER– III EXAMINATION – WINTER 2019
Subject Code: 4639304   **Date: 24/12/2019**
Subject Name: Programming in 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)** State True or False (Rewrite FALSE statement)   **07**
  1. Slicing concept is not possible on string data.
  2. It is possible to import only few functions from a module in python.
  3. Lambda functions are also known as Anonymous functions.
  4. While using regular expressions, re.search() method will search the expression only in the beginning of the string.
  5. We can create threads only by inheriting "Thread" class.
  6. The default port which is allotted for HTTP and web pages, is port no. 80 by default.
  7. In python, one create abstract class by inheriting "ABC" class in python.

(b) Answer following in one line only.   **07**
  1) You have a module named "mypython". It has a function named "sum()". How you will import the module so that you can directly use the function without prefixing module name.
  2) You have a list named "mylist". Which method you will use to add the element anywhere in between of the list ?
  3) Which regular expression function is used to search the expression only in the beginning of a line ?
  4) You have a data frame called "df". What will be the output of df.head() function ?
  5) Which graph looks like bar graph but it is used to display summary information always ?
  6) Is is possible to return more than one value using python function ?
  7) Which sequence character of regular expression is used to search any digit from the expression ?

Q.2 **(a)** Explain the difference between Mutable and Immutable object in Python.   **07**
  (b) Explain different ways of importing module in python.   **07**
                                    OR
  (b) What do you mean by Anonymous function ? Explain map() function with reference to lambda function.   **07**

Q.3 **(a)** What do you mean by Exception Handling ? Explain various blocks used for exception handling in python.   **07**
  (b) Explain the difference between Class Variable and Instance Variable.   **07**
                                    OR
Q.3 **(a)** What do you mean by Binary File ? Explain seek() and tell() methods with reference to binary file.   **07**
  (b) Explain the difference between Instance Method, Static Method and Class Method ?   **07**

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| Q.4 | **(a)** | Write a program to enter name of few states and its population. After that create a pie chart based on the data. The state having highest population should be shown separately. | **07** |
| | **(b)** | What is Deamon Thread ? Explain briefly with example. | **07** |

OR

| Q.4 | **(a)** | Write a program to read a file named "details.txt". Use regular expression and write program to read those lines which has mobile number of 10 digits anywhere in the line. (It shall display entire line which has 10 digit mobile number) | **07** |
| | **(b)** | What do you mean by Multiple Threading ? Explain use of notify() and wait() methods for thread communication. | **07** |

| Q.5 | **(a)** | Explain the difference between fetchone() and fetchall() method while using "MySQLdb" interface. | **07** |
| | **(b)** | What is the use of following operations on Data Frames ? Explain with a small example of each. | **07** |

    - shape   - tail()   - describe()

OR

| Q.5 | **(a)** | Consider a table called "book" having columns as "book_id", "book_title", "author", "isbn_number", "price". Write a program to accept the details from user and insert the details into table. | **07** |
| | **(b)** | Explain following functions with reference to read the source code from internet and save an image from internet. | **07** |

    - urlopen()   - urlretrieve()

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