

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER–VIII (NEW) EXAMINATION – WINTER 2017****Subject Code: 2180711****Date: 07/11/2017****Subject Name: Python Programming(Departmental Elective - III)****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) How to comment specific line(s) in Python program? **03**  
(b) Write a Python program to print Fibonacci series upto  $n$  terms. **04**  
(c) What is list in Python? Demonstrate use of any three methods of list. **07**
- Q.2** (a) What is the use of `islower()` and `isupper()` method? **03**  
(b) Give the syntax and significance of `raw_input()` and `input()` methods. **04**  
(c) Write a Python program to check whether the given no is Armstrong or not using user defined function. **07**
- OR**
- (c) Write a Python program to search a specific value from a given list of values using binary search method. **07**
- Q.3** (a) How map can be used in Python program? Explain with a suitable example. **03**  
(b) Give the syntax and significance of string functions: `title()` and `capitalize()`. **04**  
(c) Write a Python program to implement the concept of inheritance. **07**
- OR**
- Q.3** (a) Give the output of following Python code: **03**  
`l=[(x, y) for x in [1,2,3] for y in [3,1,4] if x != y]`  
`print l`  
(b) How filter can be used in Python program? Explain with a suitable example. **04**  
(c) Write a Python program for TCP/IP chat application. **07**
- Q.4** (a) Briefly describe the methods of regular expression. **03**  
(b) Give the output of following Python code: **04**  
`str1 = 'This is Pyhton'`  
`print "Slice of String : ", str1[1 : 4 : 1]`  
`print "Slice of String : ", str1[0 : -1 : 2]`  
(c) Write Python GUI program to create two push buttons using Tkinter. Background color of a frame should be changed when different buttons are clicked. **07**
- OR**
- Q.4** (a) Is tuple mutable? Demonstrate any two methods of tuple. **03**  
(b) Create a class Employee with data members: name, department and salary. Create suitable methods for reading and printing employee information. **04**  
(c) Write a Python program to overload + operator. **07**
- Q.5** (a) Explain the function which is used to retrieve the parts of URL. **03**  
(b) Read a text file in Python and print no. of lines and no. of unique words. **04**  
(c) Explain steps to create widgets. Write Python program to display a label on clicking a push button. **07**
- OR**
- Q.5** (a) List out keywords used in exception handling. **03**  
(b) What is dictionary in Python? Explain with an example. **04**  
(c) What is lambda function in Python? Explain with an example. **07**

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