

# SYIT/SEM III/REG/Python Programming

Time: 2½ hrs.

Marks:75

- Note:
1. All questions are compulsory with internal choice.
  2. Draw neat diagrams wherever necessary.
  3. Figures to the right indicate full marks.

- Q.1 Answer the following (any Three) (15)**
- (a) Describe for and while loop with example.
  - (b) Write a python program to print the following pattern:  
1 1 1 1 1  
2 2 2 2  
3 3 3  
4 4  
5
  - (c) Explain features of python.
  - (d) Differentiate between formal and natural languages.
  - (e) What are variables? What are the rules used for naming variable names.
  - (f) Explain type conversion with example.
- Q.2 Answer the following (any Three) (15)**
- (a) Explain recursion with example.
  - (b) Explain string slices with example.
  - (c) Write a python program to reverse a string.
  - (d) Describe stack diagram with example.
  - (e) Explain function call in python.
  - (f) Describe return statement.
- Q.3 Answer the following (any Three) (15)**
- (a) Explain basic tuple operation with example.
  - (b) Explain any five list methods with example.
  - (c) Write a Python program to read last n lines of a file.
  - (d) Write steps for reading a text file in Python with example.
  - (e) What is exception? How to handle exception?
  - (f) Explain directories in python.
- Q.4 Answer the following (any Three) (15)**
- (a) Explain inheritance type with example.
  - (b) What is regular expression? Also explain metacharacters in regular expression.
  - (c) What is the principle of object-oriented programming in python?
  - (d) Explain math module.
  - (e) Write a program in python to design a class that store the information of employee and display the same.
  - (f) Write a short note on class and object.
- Q.5 Answer the following (any Three) (15)**
- (a) What is Layout management? What are geometry managers in python.
  - (b) Write a python program to display gender using tkinter.
  - (c) Explain following widget with suitable example.  
1)Listbox 2)Menu 3)Message 4)Radiobutton 5)text
  - (d) Write a note on update and delete table using python.
  - (e) How to connect to mysql database in python.
  - (f) Explain following widget with suitable example.  
1) Button 2)Canvas 3)Checkbutton 4)Entry 5)Label

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