

ET702M - Advanced Programming

P. Pages : 2

Time : Three Hours



GUG/W/24/14248

Max. Marks : 80

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- Notes : 1. All questions carry equal marks.
2. All questions are compulsory.

1. a) Write a program to print following output: 8
- ```
1
2 2 2
3 3 3 3 3
2 2 2
1
```

- b) Write a program to reverse the given statement (word by word) using split and join 8

**OR**

2. a) Write a program to find the factorial of number from the given range. For example, find the factorial of all numbers range from 25 to 55. 8

- b) Write Python Program to reverse a number and also find the Sum of digits in the reversed number. Prompt the user for input. 8

3. a) Write Pythonic code to check if a given year is a leap year or not. 8

- b) List and explain methods and operations we can perform on list. 8

**OR**

4. a) Explain Tuples methods and operations. 8

- b) Input five integers (+ve and -ve). Write Pythonic code to find the sum of negative numbers, positive numbers and print them. Also, find the average of all the numbers. 8

5. a) Write a Python program to check if a 3 digit number is Armstrong number or not. 8

- b) What are exceptions? Explain the method to handle them with example. 8

**OR**

6. a) Write a program to read first 'n' lines from file. 8

- b) What are the three types of errors in python? Explain with example. 8

7. a) How will you create constructor in python. 8
- b) Write a program for Hierarchical inheritance in python. 8

**OR**

8. a) Define the following terms: 8
- i) Object
- ii) Class
- iii) Inheritance
- iv) Data Abstraction
- b) Create a class employee with data members: name, department and salary, Create suitable methods for reading and printing employee information. 8
9. a) Discuss Seaborn library in python with example. 8
- b) What is matplotlib in python? Explain with example. 8

**OR**

10. a) Draw scatter plot by using matplotlib. (Given that x = [5, 2, 9, 4, 7], y = [10, 5, 8, 4, 2]) 8
- b) Explain the usage of pandas in python. 8

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