

**ET702M - Advanced Programming**

P. Pages : 2

Time : Three Hours



\* 2 5 3 3 \*

**GUG/S/25/14248**

Max. Marks : 80

- Notes : 1. All questions are compulsory.  
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3. Assume suitable data wherever necessary.

1. a) Write a program to display the Fibonacci sequences up to  $n^{\text{th}}$  term where n is provided by the user. 8  
b) Explain the concept of recursion with an example. 8

**OR**

2. a) Write a program to reverse the given statement (word by word) using split and join. 8  
b) Explain the need for continue and break statements. Write a program to check whether a number is prime or not. Prompt the user for input. 8  
3. a) Describe the List and its operation and methods. 8  
b) Write a program to find all duplicate characters in string using dictionary. 8

**OR**

4. a) Convert given to lists into a dictionary  
List\_1=[“A”, “B”, “C”]      List\_2[10,20,30] 8  
b) What is Tuple? List and explain methods of Tuple. 8  
5. a) Explain command line arguments and write a program to demonstrate command line arguments. 8  
b) Write a program how to catch multiple exceptions in one line. 8

**OR**

6. a) Explain 4 different models for opening a file. 8  
b) Define keyword mentioned below with syntax.  
i) Try  
ii) Except  
iii) Else  
iv) Finally 8

- 7.** a) Explain the concept of Data Hiding in python with example. **8**  
b) Explain the concept of inheritance in detail with an example. **8**

**OR**

- 8.** a) What is constructor? How will you create constructor in python. **8**  
b) Explain class and object in python with example. **8**  
**9.** a) Explain the usage of pandas in python. **8**  
b) How to use Numpy for numerical data work? **8**

**OR**

- 10.** a) Write a program to perform multiplication of two matrix of size 2x2. **8**  
b) What is matplotlib in python? Explain with example. **8**

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