**Date:- 13-12-2023**

**Marks (10\*10=100)**

**Python and Django**

Python

1. Write a recursive function to obtain first 15 numbers of Fibonacci sequence.in a Fibonacci sequence the sum of two successive terms gives third term. First few terms of the Fibonacci sequence:

1 1 2 3 5 8 13 21 34 55 89..

1. Suppose there are two list, one containing numbers from 1 to 6,and other containing number from 6 to 1.write a program to obtain a list that contains elements obtained by adding corresponding elements

Of two lists?

1. Write Python program that defines an abstract class called Printer containing an abstract method print().Derive from it two classes-LaserPrinter and Inkjetprinter.Create objects of derived classes and call the print() method using these objects, passing to it the name of the file to printed. In the print() method

Simply print the filename and class name to which print() belongs?

1. Explain Iterator, Generator and Decorator with examples?
2. Explain the following list methods with an example. a) append() b) extend() c) insert() d) index() e) sort()
3. Write a Program to Prompt for a Score between 0.0 and 1.0. If the Score is out of range, print an error. If the score is between 0.0 and 1.0, print a grade using the following table?

|  |  |
| --- | --- |
| **Score** | **Grade** |
| >=0.9 | A |
| >=0.8 | B |
| >=0.7 | C |
| >=0.6 | D |
| <0.6 | F |

Django

1. Explain the MVT architecutre with diagrams and also write the code?
2. How to connect Mysql database to D-jango and create a table using D-jango models field(Name, Age, Mobile, Email, Image)?
3. How to upload images in the Django?
4. Create a login and registration form with authentication by using Django-Framework?

(using models, views, templates, urls)