**Module – 4 (Advance python programming)**

**1.Explain Inheritance in Python with an example? What is init? Or What Is A Constructor In Python?**

Inheritance is an important aspect of the object-oriented paradigm. Inheritance provides code reusability to the program because we can use an existing class to create a new class instead of creating it from scratch.

In inheritance, the child class acquires the properties and can access all the data members and functions defined in the parent class. A child class can also provide its specific implementation to the functions of the parent class. In this section of the tutorial, we will discuss inheritance in detail.

In python, a derived class can inherit base class by just mentioning the base in the bracket after the derived class name. Consider the following syntax to inherit a base class into the derived class.

**2.What are oops concepts? Is multiple inheritance supported in java.**

multiple inheritance is a feature of an object-oriented concept, where a class can inherit properties of more than one parent class. the problem occurs when there exist methods with the same signature in both the superclasses and subclass. on calling the method, the compiler cannot determine which class method to be called and even on calling which class method gets the priority.

**3.What relationship is appropriate for Student and Person?**

**Answer:** inheritance

**4.What relationship is appropriate for Course and Faculty?**

**Answer:** association

**5.Explain Exception handling? What is an Error in Python?**

If you have some suspicious code that may raise an exception, you can defend your program by placing the suspicious code in a try: block. After the try: block, include an except: statement, followed by a block of code which handles the problem as elegantly as possible.

**6.What is Instantiation in terms of OOP terminology?**

Instantiation refers to creating an object/instance for a class

**7.What is used to check whether an instance object o is an of class A?**

Using isinstance() function, we can test whether an object/variable is an instance of the specified type or class such as int or list. In the case of inheritance, we can checks if the specified class is the parent class of an object. For example, isinstance(x, int) to check if x is an instance of a class int

**8.How many except statements can a try-except block have? Name Some built-in exception classes:**

1. IndentationError

2. IndexError

3. KeyError

4.KeyboardInterrupt