**1.Explain all the following function in brief**

* **\_\_init\_\_(self) (ie.constructor).**
* **\_\_str\_\_(self) method**
* **\_\_del\_\_(self) (ie.destructor)**

**2 .Explain inheritance in brief.**

* Inheritance is a one of the oops principle.
* In inheritance newly created class can access properties of another class.
* The main advantage of inheritance is used to achieve Reusability of code.
* Syntax:-

class existing\_class:

statements

class new\_class(Existing class):

statemets

* Here Existing\_class is known as Parent class or also known as Super class or base class.
* And New class is known as child class or sub class or derived class.

**3. Explain all type of inheritance with Programs**

There are 5 types of inheritance as follows:

1. **Single Inheritance**

The inheritance program which one single parent and child class is known as Single Inheritance.

E. g:

class Person:

def setdata(self):

self.fname='Raj'

self.lname='Sharma'

class Student(Person):

def showdata(self):

print("First Name:-",self.fname)

print("Last Name:-",self.lname)

Here in example class Student acquires properties of Person. When we create an object of class Student we will able to access properties of class Person using object of Student class.

std=Student()

std.setdata()

std.showdata()

1. **Multilevel Inheritance**

In inheritance program child class having one more child class is known as Multilevel inheritance.

It represents as Grand Parent-Parent-Child

1. **Hierarchy Inheritance**
2. **Multiple Inheritance**
3. **Hybrid Inheritance**