**PYTHON ADVANCE THEORY ASSIGNMENT 1**

Q1. In Python, object-oriented Programming (OOPs) is a programming paradigm that uses objects and classes in programming. It aims to implement real-world entities like inheritance, polymorphisms, encapsulation, etc.

Q2. In Python, inheritance happens when an object is qualified, and involves searching an attribute definition tree (one or more namespaces). attr where object is an instance or class object, Python searches the namespace tree at and above object , for the first attr it can find.

Q3. In simple words, Instance refers to the copy of the object at a particular time whereas object refers to the memory address of the class.

Q4. The first argument of every class method, including init, is always a reference to the current instance of the class. By convention, this argument is always named self. In the init method, self refers to the newly created object; in other class methods, it refers to the instance whose method was called

Q5. The \_\_init\_\_ function is called every time an object is created from a class. The \_\_init\_\_ method lets the class initialize the object's attributes and serves no other purpose. It is only used within classes.

Q6. The new operator requires a single, postfix argument: a call to a constructor. The name of the constructor provides the name of the class to instantiate. The new operator returns a reference to the object it created.

Q7. Create a Class. To create a class, use the keyword class :

Create Object. Now we can use the class named MyClass to create objects:

The self Parameter.

Modify Object Properties.

Delete Object Properties.

Delete Objects.

Q8. The class from which a class inherits is called the parent or superclass. A class which inherits from a superclass is called a subclass, also called heir class or child class. Superclasses are sometimes called ancestors as well.