

Name-Rakesh Rajput
Class-Data Science
Assignment -oops

Que 1-

Ans 1-

object-object are structures that contain both data and Procedure
Example -a student is an object which has name and age

Class-a Class is a template that Explain detail of an object

Que 2-

Ans 2-four pillar of oops are-

- 1)inheritance
- 2)Polymorphism
- 3)Encapsulation
- 4)Abstraction

Que 3-

Ans 3-init is stand for initialization.it is constructor which gets Called when
you make an instance of class

Que 4

Ans 4-A self variable is used to represent the instance of class which often used in oops.Python uses self parameter to refer
to instance attribute and Methods of class

Que 5-

Ans 5-inheritance is mechanism in which one class acquires the properties of another class

different type of inheritance are

1) Single Inheritance

Example- Dog class inherits the Animal class, so there is the single inheritance.

2) Multiple Inheritance

Example-A class Bat is derived from base classes Mammal and WingedAnimal

3) Multilevel Inheritance

Example-For example, if we take Grandfather as a base class then Father is the derived class that has features of Grandfather and then Child is the also derived class that is derived from the sub-class Father which inherits all the features of Father.

4) Hierarchical Inheritance

Example-Physics, Chemistry, Biology are derived from Science class. Similarly, Dog, Cat, Horse are derived from Animal class.

5) Hybrid Inheritance

Example-Class A as Animal Class, Class B as Mammals, Class C as Herbivores, Class D as Cow. Mammals can be derived from Animal class, and Cow is a combination of Herbivores and Mammals.