

# Python

## Assignment Questions

### Assignment

**Q1. Explain Class and Object with respect to Object-Oriented Programming. Give a suitable example.**

**Ans :-** Class is an object constructor and blueprint for creating objects.

Example: CAR as a class that has characteristics like Steering Wheel, Seats, Brakes, etc

Object is an instance of class, object is a real world entity,

Example: pen, laptop, mobile, car etc

**Q2. Name the four pillars of OOPs.**

**Ans :** -The four pillars of OOPS,

1. Inheritance

2. Polymorphism

3. Encapsulation

4. Abstraction

**Q3. Explain why the \_\_init\_\_() function is used. Give a suitable example.**

**Ans: -**

\_\_init\_\_() function is used for assigning values to the object properties

Code: >>> **Class Person():**

**Def \_\_init\_\_():**

**Self.name = name**

**Self.age = age**

**p1=person( "aanand",27)**

**print(p1.name)**

**print(p1.age)**

**Q4. Why self is used in OOPs?**

**Ans :** - The self variable is used to represent the instance of the class which is often used in object-oriented programming. It works as a reference to the object. By using the “self” we can access the attributes and methods of the class in python.

**Q5. What is inheritance? Give an example for each type of inheritance.**

**Ans:-** Inheritance allows us to define a class that inherits all the methods and properties from another class

**Parent class** is the class being inherited from, also called **base class**.

**Child class** is the class that inherits from another class, also called **derived class**.

Note: Create your assignment in Jupyter notebook and upload it to GitHub & share that GitHub repository link through your dashboard.

Data Science Masters Hindi