**Q1. What is the purpose of Python's OOP?**

**Ans : -** **Object-oriented programming** (OOP) is a programming method based on the concept of "**objects**". By this method we can solve programming problems by creating objects.

An object has the following two characteristics: Attribute(Name, price, color), Behavior(Braking, acceleration)In Python, everything is an object. A class is a blueprint for the object. To create an object we require a model or plan or blueprint which is nothing but class.

**Q2. Where does an inheritance search look for an attribute?**

**Ans:-**  An inheritance search looks for an attribute first in the instance object, then in the class the instance was created from, then in all higher superclasses, progressing from left to right (by default). The search stops at the first place the attribute is found.

**Q3. How do you distinguish between a class object and an instance object?**

**Ans:-** Class objects represent the class itself, while instance objects represent individual instances of the class.

Class objects can have class-level attributes and methods that are shared among all instances of the class, while instance objects have their own set of attributes and methods that are independent of other.

Class object is like a blueprint for intance object but instance object is a concrete item in our code.

**Q4. What makes the first argument in a class’s method function special?**

**Ans:-** The first argument of class functions(self) reference the instance object and assignments to attributes of self change data in the instance.

**Q5. What is the purpose of the \_\_init\_\_ method**?

**Ans:-** The \_\_init\_\_ method in class is used to create instances and set initial values for its attributes.

**Q6. What is the process for creating a class instance?**

**Ans:-** To create instances of a class, you call the class using class name and pass in whatever arguments its \_\_init\_\_ method accepts.

**Q7. What is the process for creating a class?**

**Ans:-** In Python, a class can be created by using the keyword class, followed by the class name. Class object is like a blueprint for intance object.

**Q8. How would you define the superclasses of a class?**

**Ans:-** A class that is derived from another class is called a subclass (child class). The class from which the subclass is derived is called a superclass (a parent class).