**Q.2 What is OOP? List OOP concepts?**

* **What is OOP :**
* OOP stands for Object-Oriented Programming.

Procedural programming is about writing procedures or functions that perform operations on the data, while object-oriented programming is about creating objects that contain both data and functions.

* **List OOP Concepts :**

1. Class
2. Object
3. Inheritance
4. Encapsulation
5. Abstraction
6. Polymorphism

* Class :

Class is a collection of a data member and a member function. A class is a user-defined data type that we can use in our program, and it works as an object constructor, or a "blueprint" for creating objects.

* Object :

In C++, Object is a real world entity, for example, chair, car, pen, mobile, laptop etc. In other words, object is an entity that has state and behaviour. Here, state means data and behaviour means functionality. Object is an instance of a class. All the members of the class can be accessed through object.

* Inheritance :

The capability of a [class](https://www.geeksforgeeks.org/c-classes-and-objects/)to derive properties and characteristics from another class is called **Inheritance.** Inheritance is one of the most important features of Object-Oriented Programming.

* Encapsulation :

The meaning of Encapsulation, is to make sure that "sensitive" data is hidden from users. To achieve this, you must declare class variables/attributes as private (cannot be accessed from outside the class). If you want others to read or modify the value of a private member, you can provide public get and set methods.

* Abstraction :

Abstraction is the process of only showing the necessary details to the user and hiding the other details in the background.

* Polymorphism :

Polymorphism means "many forms", and it occurs when we have many classes that are related to each other by inheritance.

**Q.3 What is the difference between OOP and POP?**

* **OOP :**