

2. What is OOP? List OOP concepts.

Ans:

- OOPS stand for object-oriented programming. Procedural programming is about writing procedures or functions that perform operations on the data.

1) Encapsulation:

- Storing data and functions in a single unit(class) is encapsulation.
- Encapsulation gives the guarantee of data hiding. The data in a class is hidden from other classes, similar to capsules.

2) Class:

- A class is a collection of objects of a similar type.
- A class describes the structure of objects.
- Once a class is defined, any number of objects can be created which belong to that class.

3) Object:

- Objects are the basic run-time entities in an object-oriented system.
- The object is the variable or says the instance of the class. We can create as many instances of a class as we want.

4) Inheritance:

- Inheritance means heredity. Some of the characteristics of parents are common in their children.
- Inheritance means to create new class based on an existing class.

5) Polymorphism:

- Polymorphism means the ability to take more than one form.
- One name and many forms are called polymorphism.