2. What is OOP? List OOP concepts

**Ans:** Object-Oriented Programming or OOPs refers to languages that use objects in programming. Object-oriented programming aims to implement real-world entities like inheritance, hiding, polymorphism, etc in programming. The main aim of OOP is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function.

List oop concept

* Class
* Object
* Data Abstraction
* Encapsulation
* Inheritance
* Polymorphism
* Dynamic Binding
* Message passing

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| OOP:  Object oriented programming | POP:  Procedural oriented programming |
| 1. A programming paradigm based concept of object, which contain data in form of fields knows as attributes and code in form of procedures know as methods | 1. A programming paradigm that is based upon the concept of the procedure calls |
| 1. Emphasis on objects | 1. Emphasis on function |
| 1. Divides the program into multiple   objects | 1. Divides the program into multiple   function |
| 1. Modification is easier as object are   independent | 1. Modification are difficult as they can affect entire program |
| 1. Object communicate with each other   By passing messages | 1. Functions communicate with each other by passing parameters |
| 1. Each object controls its own data | 1. Function share global variable |
| 1. It is possible to hide data | 1. There is no data hiding mechanism |
| 1. Has access specifiers | 1. Do not have access specifiers |
| 1. Supported in C++, Java and python | 1. Supported by C, pascal, FORTRAN and   COBAL |

3. What is the difference between OOP and POP?

Ans: