1. **What is OOP? List out OOP concepts.**

OOP stands for Object Oriented Programming.

Concepts of OOPS

**OOP Concepts**

**Abstraction**

**Encapsulation**

**Polymorphism**

**Inheritance**

**Objects**

**Class**

**Object**

* Any entity that has state and behavior is known as an object.

**Class**

* The collection of objects is called class.

**Inheritance**

* When one object acquires all the properties and behaviors of the parent object, i.e., inheritance. It provides code reusability. It is used to achieve runtime polymorphism.

**Polymorphism**

* When one task is performed by different ways i.e. known as polymorphism. For example: to convince the customer differently, to draw something e.g. shape or rectangle etc.
* In C++, we use Function overloading and Function overriding to achieve polymorphism.

**Abstraction**

* Hiding internal details and showing functionality is known as abstraction.

**Encapsulation**

* Binding (or wrapping) code and data together into a single unit is known as encapsulation.

1. **Difference between OOP and POP.**

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| **OOP** | **POP** |
| * Stands for Object Oriented Programming. | * Stands for Procedural Oriented Programming. |
| * Follows a bottom-down approach. | * Follows a top-down approach. |
| * Inheritance is supported. | * Inheritance is not supported. |
| * Encapsulation is used to hide data. | * No data hiding. Data is present globally. |
| * C++, Java | * C, Pascal |
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