**MODULE: 4.1 (C++ Basic)**

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

OOP is a Object Oriented Programming language. It is based on objects. In this program divides into small parts called objects. It is used to implement real world entities like inheritance, polymorphism, abstraction in the program to make program efficient and easy to use. OOPs concepts are: -

1. **Class**

It is a collection of objects. Class is a collection of data member and member function with its behaviour.

1. **Object**

Object is an instance of class, to create memory for class to access all the properties of class except private.

1. **Encapsulation**

Data hiding wrapping out of data into single unit. Ex. capsule, mobile.

1. **Polymorphism**

Ability to make one name having different form. Two types of polymorphism are: -

1. Method overloading (compile time)
2. Method Overriding (run time)
3. **Inheritance**

Properties of parent class derived into child class is called inheritance.

1. **Abstraction**

Essential part shows rest of part hidden.

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

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| P.O. P | O.O. P |
| 1. Procedure Oriented Programming language | 1. Object Oriented Programming language |
| 1. Focuses on Process not on data. | 1. Focuses on Data not process |
| 1. Top-Down Approach | 3. Bottom-UP Approach |