**Core Java - Assignment**

**Module - 1**

1. **Object-oriented Concepts in Java**

**Theory : -**

1. Basics of OOP: Encapsulation, Inheritance, Polymorphism, Abstraction :

-> Encapsulation : - it is used to hide data from unauthorised user or modification

-> Inheritance : - Creating new class based on existing class and let them access public and protected method.

-> Polymorphism : - Generally, when you make write methods with same name but works differently based on parameters.

-> Abstraction : - It means showing only needed features of the program.

1. Inheritance: Single, Multilevel, Hierarchical :

-> Single Inheritance : A class inherits method and variable from single class.

-> Multilevel Inheritance : One class method are inherited by another class and also another class inherits second class it is called multilevel inheritance.

-> Hierarchical Inheritance : Multiple class have a single parent class.

1. Method Overriding and Dynamic Method Dispatch

-> A child class have same name method of parent class when it execute child class method then it is called Method overriding.

->The mechanism by which a call to an overridden method is resolved at runtime, rather than at compile time.