**MODULE - 4**

**OOPS concepts**

**Q-1) what is OOP? List OOP concept**

**ANS -** Object-oriented programming – As the name suggests uses 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.

There are some basic concepts that act as the building blocks of OOPs i.e.

1. Class
2. Objects
3. Encapsulation
4. Abstraction
5. Polymorphism
6. Inheritance
7. Dynamic Binding
8. Message Passing

## Q-2) Difference Between OOP and POP

|  |  |
| --- | --- |
| **OOP** | **POP** |
| This type of programming language uses objects and classes for creating models. | This programming language uses a step-by-step approach for breaking down a task into a collection of routines and variables by following a sequence of instructions. |
|  |  |
| Object-Oriented Programming | Procedure Oriented Programming |
| Bottom-up approach | Top-down approach |
| Method overloading and overriding are used in OOP to achieve polymorphism. | It doesn’t support polymorphism. |
| Supports | Do not support |
| Supports | Don’t support |
| Data handling is possible in OOP due to programming. | It is less secure than OOP. |
| Used for solving big problems. | Not suitable for big problems. |
| C++, JAVA, C#, .NET | C, FORTRAN |