

Module 4: C++ Basic

Que: What is OOP? List OOP concepts.

Ans:

OOPs means object-oriented programming. The main work of oops is joint data together the data and function operate on them so that no other part of code can access.

OOP Concepts:

- Class.
- Object.
- Encapsulation.
- Inheritance.
- Polymorphism.
- Abstraction.

Class:

The building block of c++ that leads to oop is class. It is user define function, which hold its own data member and member function.

Which can be accessed and used by creating a class. A class is like blueprint for an object.

Object:

An Object is an instance of a class. When a class is defined, no memory is allocated but when an object is created then memory is allocated.

Encapsulation:

Encapsulation is defined as wrapping up data and information under a single unit. In oop, Encapsulation is defined as binding together the data and the functions that manipulate them.

Inheritance:

The capability of a class to derive properties and characteristics from another class is called inheritance.

Sub-class:

The class that inherits properties from another class is called Sub class.

Super-class:

The class whose properties are inherited by a sub-class is called sub class.

Reusability;

when we want to create a new class and there is already a class that includes some of the code that we want, we can derive our new class from the existing class.

Polymorphism:

we can define polymorphism as the ability of a message to be displayed in more than one form.

Abstraction:

Abstraction means displaying only important information and hiding the details.

Que: What is the difference between OOP and POP?

Ans:

OOP	POP
Object oriented programming	Procedural oriented programming
Program is divided into objects	Program is divided into functions
Bottom-up approach	Top-down approach
Encapsulation is used to hide the data	No data hiding
The existing code can be reused	No code reusability
use for solving big problems	Not suitable for solving big problems