

Object Oriented Programming Using C++

MIT(CS)- 303

BLOCK-1

Unit-1

Introduction to Object-Oriented Programming, Features of C++, Object Terminology, Abstraction, Classes, Encapsulation, Inheritance and Polymorphism, Modular Programming, Command Line Compilation

Block -2

Unit-2

Basic syntax of c++, Keywords, Member Functions and Privacy, Adding a Member Function, Call a Member Function, Accessing Global Functions, Input and Output Examples , Dynamic Memory , System Memory, Static Memory, Memory Issues, Memory Leak, Insufficient Memory, Insufficient Memory

Block-3

Unit-3

Introduction to Encapsulation, Basic Class Features , Object or Instance , Constructor , Default Constructor, Copy Constructor ,Destructor, Default Destructor, Constructors Overloading, The Current Object ,Classes and Resources , Member Operators , Binary Operations, Unary Operations, Pre-Fix Operators, Post-Fix Operators, Type Conversions, Helper Functions, Custom I/O Operators ,Custom File Operators .

Block-4

Unit-4

Introduction to Inheritance , Base and Derived Classes, Functions in a Hierarchy, Derived Classes and Resources, Constructors and Destructor , Copy Constructor , Passing Arguments to a Base Class Constructor

Block-5

Unit-5

Understand the concepts of Polymorphism, Overview of Polymorphism , Types of Polymorphism ,Function overloading, Virtual Functions, Abstract Base Classes ,Function Templates