Unit 1.1) Introduction to Object Oriented Programming (OOP)

Q.1) In Brief : Fundamentals of object-oriented programming: Classes, Objects, methods, Data Abstraction, Data Encapsulation, Information hiding, Inheritance, Polymorphism.

Q.2) Benefits of OOP

Q.3) What is Class, Object & Methods in C++. Explain with examples

Q.4) What is Data Abstraction? Explain with examples

Q.5) What is Data Encapsulation? Explain with examples

Q.6) What is Information hiding? Explain with examples

Q.7) What is Inheritance? Explain with examples

Q.8) What is Polymorphism? Explain with examples

Unit 1.2) Introduction to C++:

Q.1) Basics of C++, Class, Object, Array of objects, Data Members, Member Function

Q.2) Access Specifiers

Q.3) Function prototype, Passing and Returning object in Function

Q.4) Constructor and destructor, Types of constructors

Q.5) Inline function, Friend function, Friend Class, Static members: variable and function

Unit 2) Inheritance and Polymorphism

Q.1) Inheritance: Introduction, Base and Derived Classes, Protected: Data member and Member Function. Member Access Control, Inheriting Constructors and Destructors,

Q.2) Types of Inheritance, Overriding Member Functions,

Q.3) Ambiguity in Multiple Inheritance, Virtual Base Class.

Q.4) Polymorphism: Introduction to Polymorphism, Types of Polymorphism,

Q.5) Function overloading, Operator Overloading: Concept of Operator Overloading, Overloading Unary and Binary Operators, Prefix and Postfix Operator Implementation.

Q.6) Run time Polymorphism: Pointers to Objects, Pointers to Derived Class, Importance of Virtual Function, Pure Virtual Function and virtual table, Virtual Destructors, Early and Late Binding. Abstract base Class