Unit I

Creation of C#: C# family tree,, Relationship in .NET Framework, CLR, Managed vs unmanaged code, CLS :

Overview of C#:Object oriented programming, executing the program in IDE & command line compiler; Data types, Literals and variables: Important data type, integers, floating-point, the decimal type, characters, the bool type; Literals; Variables, type conversion & casting, type conversion in Expressions. Unit II

Operators: Arithmetic operators, Relational & Logical operators, Assignment operators, Bitwise operators, **Control Statements:** IF statements, Switch Statement, For loop, While loop, Do- while I loop, foreach loop, Break, Continue, goto.

Classes, Objects and Methods: Class fundamentals, creation of objects, Methods, Constructors and Destructors, new operator, this keyword.

Unit III

Arrays & strings:One-dimensional array, Muti-dimensional array, Jagged arrays, Strings. **Closer look at methods & classes:**Method overloading, overloading constructors, the Main () method, Recursion

Operator overloading: Operator overloading fundamentals, Operator overload on built-in types, overloading relational operators, logical operators, Enabling short-circuit operators.

Unit IV

Inheritance: Basics, Member access & inheritance, Virtual Methods and overriding, Abstract Classes. **Interfaces, Structures & Enumerations:** interfaces, interface references, interfaces can be inherited; Structures.

Unit V:

Exception Handling:Exception handling fundamentals, using multiple catch statements, catching all exception, nesting try blocks, throwing an exception, using finally.

I/O: The Stream classes, console I/O.

Reference Books

- 1. Herbert Schildt, TheComplete Reference. C# 2.0, Tata McGraw-Hill Edition 2006.
- 2. Jesse Liberty. Learning C#, O'reilly publications, 2002.