**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 l 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.