

BSc (IT)

.NET Programming

(LTP::3:1:2)

6 Credits

UNIT-I

Introduction: Overview of OOP, The .NET strategy, the origins of the .NET technology, the .NET framework. C# and .NET, Introduction to C #, c# program structure, command line argument, math function, Literals, variables and data, constant variables, scope of variables, boxing and unboxing, Operators in C#, expression, Decision making and looping statements in c#
Methods in C# : declaring methods, nesting of methods, methods parameters, the output parameters, variable arguments list, method overloading. Arrays and String handling.

UNIT-II

Inheritance: Types of Inheritance, classical inheritance, containment inheritance, visibility control, constructors, overriding methods, hiding methods, abstract classes, abstract methods, sealed classes, Preventing inheritance, sealed methods **and polymorphism**

Interfaces, Multiple Inheritance, abstract class

Operator overloading: over loadable operators, defining Operator overloading, overloading unary operators, overloading binary operators.

UNIT-III

Delegates: delegate declaration, delegate methods, delegates instantiation, delegate invocation, using delegates, multicast delegates **and Events.**

Managing Console I/O operations, **Managing Errors and Exceptions** : Types of errors, exceptions, syntax, multiple catch statement, the exception hierarchy, using final statement, nested try blocks, throwing our own exceptions, checked and unchecked operators.

UNIT-IV

Introducing windows forms: A tale of three GUI namespaces, overview windows forms, Anatomy of a Form, Programming with windows forms controls: Working with button types, check boxes, Radio buttons, Group boxes, list boxes.

Data access with ADO.NET: The need for ADO.NET, two faces of ADO.NET, role of ADO.NET data providers, Building a simple test database, selecting a data provider, working with connected layer of ADO.NET & OleDb Data reader, inserting, updating and deleting records using OleDb command.

Text Books :

1. Profession c# - By Karli Watson, Simon Robinson, Christian Nagel, Wiley India Pvt Ltd.
2. C# Unleashed – By Joseph Mayo, Techmedia, First Edition
3. Programming C# - By Jesse Liberty, Shroff Publishers, 4TH Edition
4. Programming in C# - By Barbara Doyle, Cengage \ Delmar Learning India Pvt.