## H.N.G. University, Patan M.C.A – Semester - IV MCA-43: Advance Web Technology – I

Unit: 1 [20%]

**Overview of .net framework:** .net architecture, framework class library, Common Language Run Time, managed code, assemblies, Intermediate Language, Just In Time Compiler, common type system, common language specification, .Net Features

**File I/O and Streams:** Drive info class, Directory Info class, file and file Info, working with paths, Reading and Writing Files: Streams, Readers and Writers

Unit: 2 [20%]

Introduction to C#: Data Types (Boxing and UnBoxing), Operators, Access Specifier

**OOPS Concepts:** Class, Inheritance, Constructor, Destructor, Abstraction, interface, polymorphism (Over loading and over ridding), Garbage Collection, Array (One Dimensional and Two Dimensional), Jagged Array, Collection: Generic Collection (List), Non Generic Collection (Array list, Hash table,), Property, Delegates and events(Multicasting, Multicasting Event), Exception Handling, Introduction to Namespace: Creating & Using Namespace(DLL)

Unit: 3 [30%]

Architecture of ADO.Net, Comparison with ADO(Connected and Disconnected Architecture), .Net Data provider, Data Adapter, Data Set, Data Row, Data Column, Data Relation, command, Data Reader

## Querying with LINQ:

LINQ to Objects: Traditional Query Methods, Replacing Traditional Queries with LINQ, Data Grouping, LINQ Operators, and LINQ joins, Paging using LINQ

## LINQ to SQL:

Insert, Update And Delete Queries through LINQ

Unit: 4 [30%]

**ASP.Net:** ASP.NET Page Life Cycle, Server Controls: label, dropdown list box, validation controls, list box, text box, radio button, check box, Validation Controls, Request, Response and Server Object

**State Management**: session, cookie, View State, **Data Rendering Controls**: Grid View, Datalist, Repeater, List view, Binding and perform operations(Insert, Update, Delete) with Grid View, Creating and Using web services, Working with Master pages

Navigation Controls: Understanding Site Maps, SiteMapPath, Menu, Tree View

Rich Controls: File Upload, Calendar, Adrotator

## **Reference Books:**

- 1. Complete Reference C# Herbert schildt (TMH Publication)
- 2. Professional ASP.NET 4 in C# and VB
- 3. Complete reference Asp.Net Herbert schildt (TMH Publication)
- 4. Asp.Net with Visual c#.Net 2003-Wrox Publication
- 5. Visual c#.Net 2003-Wrox Publication
- 6. Asp.net 4 Unleashed.