MCA306: .NET Framework using C#	
Teaching Scheme Lectures: 3 hrs/Week Tutorials: 1 hr/Week Credits: 4	**Examination Scheme** Class Test – 12 Marks Teachers Assessment – 6 Marks Attendance – 12 Marks End Semester Exam – 70 Marks

Prerequisite: HTML and CSS.

Course Objectives:

1. Learn about MS.NET framework developed by Microsoft.
2. You will be able to using XML in C#.NET specifically ADO.NET and SQL server
3. Be able to understand use of C# basics, Objects and Types, Inheritance
4. To develop, implement and creating Applications with C#.
5. To develop, implement, and demonstrate Component Services, Threading, Remoting, Windows services, web
6. To understand and be able to explain Security in the .NET framework and Deployment in the .NET.
7. To develop Assemblies and Deployment in .NET, Mobile Application Development.

Detailed Syllabus:

Unit-1 **The .Net framework:** Introduction, The Origin of .Net Technology, Common Language Runtime (CLR), Common Type System (CTS), Common Language Specification (CLS), Microsoft Intermediate Language (MSIL), Just-In-Time Compilation, Framework Base Classes. **Programming Language C#:** Declaring implicit and explicit variables, Unicode characters and strings, creating Object and Classes, The Main method specification.
Unit-2 **Object oriented programming with C#:** Inheritance, Method Overloading and method overriding, Polymorphism, Operator Overloading, Abstract Class, Inner Class, Interface. Delegates, Partial Classes, Exception Handling, Creating Name-Space, Input-Output and File Handling, Multithreading, **Windows Application:** Introduction of windows form, Linking Window Form, Creating Properties, window form controls, MDI form.
Unit-3 **Containers and its Event Handling:** Flow Layout Panel, Group Box, Panel, Split Container, Tab Control, Table Layout Panel. Navigation Control and Its Event Handling: Context Menu Strip, Tool Strip, Status Strip, Tool Strip Container. **Dialog Boxes and its Event Handling:** Message Dialog Boxes, Color Dialog, Folder Browser Dialog, Font Dialog, Open File Dialog, Save File Dialog, Data Grid View, Dataset.
Unit-4 **Introduction to ASP.NET with C#:**Introduction of web application, web site, A Review of Classic ASP , ASP.NET Web Applications, Rendering HTML with Server Controls. **Working with Web Forms Controls and C#**: Introduction to Web Forms Controls, Simple Input Controls, Hyperlinks, Button Controls and List Controls. Dropdown List Control, Overview of ASP.NET Validation Controls, Client-Side Validation, Server-Side Validation, File Upload controls, Wizard controls.Master Page, Ad Rotator Control, Login Controls, Session Management using Cookies, Session.

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Unit-5

ADO Net: Overview of ADO.NET, ADO. NET Classes,Connected and Disconnected Architecture and different operation with database.

Using the Data List and Repeater, Data grid Controls: Overview of List-Bound Controls , Creating a Repeater Control, Creating a Data List Control , Introduction to the Data Grid , , Using Advanced Data Grid Features.

Unit-6

Working with XML: Data handling using XML, Creating web Services, Net Assemblies features and Structure.

Configuring and Deploying ASP.NET Applications: Creating Setup of Web Application, Configuring IIS and the .NET Framework, Deploying ASP.NET Applications.

Suggested Readings:

1. Beginning Visual C# 2008, Wiley, Wrox Publication, 2nd Edition 2008
2. Programming with C#, E. Balagurusamy, TMH, 2nd Edition 1999
3. Microsoft .Net for Programmers, Fergal Grimes, SPI Edition,

Course Outcomes:

After completing the course, students will be able to:

1. Learn to develop applications using C# and VB.NET.
2. Learn to apply these languages to develop server-side applications which make use of ADO.NET, ASP.NET, and Web Services etc.
3. Understand use of C# basics, Objects and Types, Inheritance
4. Develop, implement and creating Applications with C#.
5. Develop, implement, and demonstrate Component Services, Threading, Remoting, Windows services, web.
6. Understand and be able to explain Security in the .NET framework and Deployment in the .NET.