GUJARAT TECHNOLOGICAL UNIVERSITY
COMPUTER ENGINEERING
B. E. SEMESTER: VII

Subject Name: **Advance .Net Technology (Department Elective -I)**

Subject Code: **170707**

Teaching Scheme				Evaluation Scheme			
Theory	**Tutorial**	**Practical**	**Total**	**University Exam (E)**		**Mid Sem Exam (Theory) (M)**	**Practical (Internal)**
				Theory	**Practical**		
4	0	2	6	70	30	30	20

Sr. No.	Course Contents	Total Hrs
1.	**Introduction to .NET** .NET framework, MSIL, CLR, CLS, Name spaces, Assemblies, the Common Language Implementation , Assemblies , Metadata and Intermediate Language , Garbage Collection , Versioning and Side-by-Side Execution , The End to DLL Hell , Managed Execution , COM InterOp	03
2.	**Data Types and Base Class Libraries** Understanding .NET Data Types , Exploring Assemblies and Namespaces , String Manipulation , Files and I/O , Collections , The Microsoft.VisualBasic Namespace	02
3.	**VB .NET** Language Features Creating .NET Projects , Namespaces , Data Structure and Language Highlights , Classes and Inheritance , Structured Error Handling , Exploring the Base Class Library , Compatibility with VB6 , The .NET Type System , Threads	02
4.	**Object Oriented Programming with VB.NET** Creating Classes in VB.NET , Overloading , Constructors , Inheritance , Controlling scope and visibility , Dispose and Finalization , Debugging and Error Handling	03
5.	**Introduction to Windows Forms** Benefits of Windows Forms , .NET Events , The Windows Forms Model ,Creating Windows Forms ,Windows Forms Properties and Events , Dialogs , ToolTips	03

6.	**Windows Forms and Controls in detail** Windows Form Controls ,Resizing , Menus, Visual Inheritance , Apply Inheritance techniques to Forms , Creating Base Forms , Programming Derived Forms , MDI Form, Custom control creation, Using ActiveX Controls, Printing , Handling Multiple Events , GDI+	05
7.	**Introduction to ADO.NET** Benefits of ADO.NET , ADO.NET compared to classic ADO , ADO .NET Objects Working with DataSets , Managed Providers , Data Binding, DataSets and XML , Typed DataSets, Working with Data Reader	05
8.	**Console Applications** When to use Console Applications , Generating Console Output , Processing Console Input	03
9.	**C# .NET** Introduction to C#,Namespaces,Constructors and Destructors, Function Overloading and Inheritance,Modifiers,Properties and Indexers, Attributes, Reflection API ,Unsafe Code, Events and Delegates	04
10.	**ASP.Net** Introduction to ASP.NET, Difference between ASP and ASP .Net, Working with Controls, Using Rich Server Controls, Configuration Overview , Using the Web Site Administration Tool , Programming Configuration Files , Encrypting Configuration Sections, Accessing Data using ADO .Net, Connecting to Data , Executing Commands , Working with Data	04
11.	**Managing State** Preserving State in Web Applications , Page-Level State , Using Cookies to Preserve State , ASP.NET Session State , Storing Objects in Session State , Configuring Session State , Setting Up an Out-of-Process State Server , Storing Session State in SQL Server , Using Cookieless Session IDs , Application State	04
12.	**Themes and Master Pages** Creating a Consistent Web Site, ASP.NET Themes: Working with CSS and Scene files, Master Pages: working with Content place holder and Nested Master page.	05
13.	**Using the Data Bound controls and Repeater Controls** Overview of List-Bound Controls , Creating a Repeater Control , Creating a DataList Control,	02
14.	**Creating and Consuming Web Services** The Motivation for XML Web Services , Creating an XML Web Service with Visual Studio , Designing XML Web Services , Creating Web Service Consumers, Discovering Web Services Using UDDI	05

15.	**Advance .Net Concepts:** Introduction Windows Presentation Foundation (WPF), Introduction to Windows Communication Foundation (WCF), Introduction to Windows Work Flow (WF), Silver light, Introduction to Ajax Controls.	04

Text Books:

1. Professional VB. NET , Wrox publication
2. ASP .NET complete reference, TMH
3. C# The Basic by Vijay Mukhi

Reference Books:

1. ASP.NET Developer's Guide – Greg Buczek, McGrawHill
2. Programming VB.Net 2005, Julia Case Bradley, Anita Millspaugh, McGrawHill
3. ASP.NET 2.0, Black Book, dreamtech
4. ASP.NET 4, Unleashed – Stephen Walther, Kevin Hoffman, Nate Dudek, Pearson
5. Professional C# .Net, Wrox publication