HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN
M.C.A. SEM – IV
MCA-42 : Advanced Technology – I

Teaching Scheme (per week)		Examination Scheme					
		INT		EXT		TOTAL	
Th. (hours)	Pr. (hours)	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)
4	3	30	20	70	30	100	50

UNIT I (25%)
basic of the .net framework: .net architecture, managed code, assemblies, clr, execution of assemblies code, il, jit, net framework class library, common type system, common language specification, interoperability with unmanaged code.

UNIT II (25%)
Introduction to VB.Net and C#:
VB.Net : Net features, Data Types
C# : Data Types, Operators, Garbage Collection, Jagged Array, Collection (Array list, Hash table), Indexer(One Dimension) and property, Delegates and events(Multicasting , Multicasting Event), Exception Handling.

UNIT III   (25%)
ADO.Net & Object Oriented Concepts (Using VB.Net Or C#): Basic window control, Architecture of ADO.Net, Comparison with ADO, .Net Data provider, Data Adapter, Data Set, Data Row, Data Column, Data Relation, command, Data Reader, Data Grid Constructor, Destructor, Abstraction, interface, polymorphism (Over loading and over ridding)

UNIT IV   (25%)
ASP.Net : Anatomy of ASP.NET Page, Server Controls : label, dropdown list box, validation controls, list box, text box, radio button, check box, State Management : session, caching, Authentication (window,.Net Passport, Forms Based), Authorization, web services, Advance Grid Manipulation.

Books:
1.   Applied .Net Frmework Prog. In Ms VB.Net – Jeffrey Richter,Francesco Balena (TMH Publication)
2.   Complete Reference C#   - Herbert schildt (TMH Publication)
3.   Microsoft Visual Basic .Net step by step - Michael Halvorsan (PHI Publication)
4.   Microsoft ASP.Net with C# .Net step by step - G.Andew Duthie (PHI Publication)

Question Paper Scheme:

Section – I   Section – II
Q.1 - Objective Type Unit I & II   (11) Marks   Q.4 - Objective Type Unit III & IV   (11) Marks
Q.2 - Unit-I **OR** Q.2 Unit-I   (12) Marks   Q.5 - Unit-III **OR** Q.5 Unit-III   (12) Marks
Q.3 - Unit-II **OR** Q.3 Unit-II   (12) Marks   Q.6 - Unit-IV **OR** Q.6 Unit-IV   (12) Marks

PRACTICAL LIST:
   1. Write a program of binary operator Over loading
   2. Write a program using delegation in which addition and subtraction of two integer value possible
   3. Writing a program-using Interface.
   4. Write a program to display the caption, height of command button into label.
   5. Write a window program for list box give the facility for adding, removing and clearing the list with conformation and store the deleted file in another list box.

6. Create an window form through which user can enter details of employee : empid, empname, basic salary, sex, date of birth, date of joining, Designation, total income, total deduction and gross salary will be calculated automatically.
7. Also in above program all details of employee will be appear in Grid and depending upon selection particular actual record will be appear in form.
8. Create an ASP.Net web page using different validation controls.
9. Create an ASP.Net Web page that lists the customer from customers database table in a sortable Data Grid with paging option. The Data Grid should display three columns, one for the customers' ids, one for the customer's names and one for the customer' phone numbers. The user should be able to sort the Data Grid by customer ID.
10. Create simple web service.