

C.U.SHAH UNIVERSITY – WADHWANCITY

FACULTY OF: -Diploma Studies

DEPARTMENT OF: -Computer Engineering

SEMESTER: - VI **CODE:** - 2TE06NET1

NAME – .NET Programming

Teaching & Evaluation Scheme:-

Subject Code	Name of the Subject	Teaching Scheme				Evaluation Scheme							
		Th	Tu	Pr	Total	Theory				Practical (Marks)			Total
						Sessional Exam		University Exam		Internal		University	
						Marks	Hours	Marks	Hours	Pr/Viva	TW	Pr	
2TE06NET1	.NET Programming	04	00	04	08	30	1.5	70	03	----	20	30	150

Objectives:-

The .NET platform has become a robust technology platform for application development. It is a very popular platform these days being used to develop web based applications. The students of Diploma in Computer Engineering should have skills in .NET Programming techniques using VB.NET. This course aims that student should learn creating simple applications as well as Applications that are database driven using .NET technology

Prerequisites: -Basic knowledge of Programming

Course Outlines:-

Sr. No.	Course Contents	Hours
1	Introduction to .NET framework and VB.NET Overview of .NET Framework, Framework components, Recognize various parts of .net IDE(start page, menu system, toolbars, new project dialog box, graphical designers, code designers, intellisense, object explorer, toolbox, solution explorer, class view window, properties window, dynamic help window, server explorer, output window, command window)	08
2	Basics of VB.NET variables, Constants, Data Types, Operators, Control Structures and loops, Arrays (single and multidimensional array, declaring, dynamic array)	06
3	Introduction to Common Control Form (Properties : appearance, behaviour, layout, windows style etc, methods and events), Differentiate procedure oriented-object oriented and event driven programming, Inputbox, MessageBox ,Label & button (Properties: flatstyle, image, imagealign etc.), Textbox (Properties: autosize, maxlength, multiline, readonly, wordwrap etc.), NumericUpDown (textalign, updownalign, value, interceptarrowkeys, decimalplaces, increment, maximum, minimum etc.) Check Box (autocheck, checked, checkalign,	10

	checkstate, threestate etc.), Radio Button (check aligned, check, autocheck etc.), Group Box (gridsize:width, height etc.) control and all important methods and events,	
4	Additional Control and menus Date Time Picker, List Box, Combo box, Picture Box, Rich Text Box, Progress bar, Masked Text box, Link Label, Checked List box, Scroll Bars, timer),Working with Menus(creating menu, inserting, deleting, assigning short cut keys, pop up menu)	08
5	Advanced features of vb.net Dialog Boxes(OpenFileDialog, SaveFileDialog, FontDialog, ColorDialog, PrintDialog), Sub Procedures and functions(declaring, passing and returning arguments, exiting from it, pass by value and pass by ref),Exception Handling(Structured Error Handling: TryCatchfinally), Unstructured Error Handling: On error go to line, resume next) , MDI Parent form and child form	08
6	Functions Mathematical Functions (Abs function, Exp function ,Fix Function ,Int Function,Log Function ,Rnd Function, Round Function, Sqrt Function), String manipulation(Mid Function ,Right Function, Left Function ,Trim Function, Ltrim Function , Rtrim Function , InStr function ,Ucase and Lcase Functions ,Chr and Asc functions,Formatting Functions), Format Functions (Formatting Using ToString Method ,Formatting Date and Time)	08
7	Database access using ADO.NET Data provider(connection, command, data reader, data adapter, data readers), Dataset (datatablecollection(datatable, datarows, datacolumns, data constraints), datarelationcollection),Creating a Database Application, Creating Connection to a Database using ADO.NET , Datagrid view, Editing, Saving, Adding and Deleting Records using bounded and unbounded	08

List of Experiments:-

- Observe and draw visual .net IDE layout and hands on practice to create, save and open the project
- Write, test and debug at least 5 loop, array and operator based vb.net programs
- Design forms and write, test and debug programs to test its various properties , methods, events
- Write, test and debug program to test input box and message box
- Write, test and debug applications to use textbox, label, button
- Write, test and debug applications to use radio button, checkbox, numeric updown and group box controls
- Write, test and debug application using date time picker, list box, combo box, picture box
- Write, test and debug application using rich text box, progress bar, masked text box, link label
- Write, test and debug application using checked list box, scroll bars, timer
- Write, test and debug applications using menu
- Write, test and debug applications using dialog boxes
- Write, test and debug applications using sub procedures and functions
- Write, test and debug applications using MDI
- Write, test and debug applications using math and string manipulation functions

- Create and test connection using ado.net to view SQL express server/Microsoft Access data in textbox etc controls
- Create and test connection using ado.net Oracle/other database data in textbox etc controls
- Create connection view controls like data-grid view controls
- Write, test and debug small application to add, edit, search, delete record in database in bounded mode
- Write, test and debug small application to add, edit, search, delete record in database in unbounded mode i.e. through coding

Learning Outcomes:-

- Explain the architecture of Dot Net Technology.
- Develop single form based simple .Net applications using basic and advanced control
- Develop multiple form and menu based .Net applications
- Develop small ADO.net based database driven .Net application

Books Recommended:-

- Visual Basic .net Comprehensive Concepts and Techniques **By Shelly, cashman, Quasney**(Cengage learning, 2012)
- Visual Basic .net **By Steven Holzner** (Dream Tech Press Latest Edition)
- Murach's Beginning Visual Basic .NET **By Anne Prince**(Murach)
- Programming in Visual Basic. NET **By Julia Case Bradley, Anita C. Millspaugh** (MGH Latest edition)

E- Reference:-

- <http://www.homeandlearn.co.uk/NET/vbNet.html>
- <http://msdn.microsoft.com/en-us/beginner/default.aspx>
- <http://www.youtube.com/watch?v=hE05SqxPs9E>
- <http://www.learnvisualstudio.net>
- http://www.tutorialspoint.com/vb.net/vb.net_basic_controls.htm
- <http://www.freelearn110.com/visualbasic/level1/tutorials.html>