

35253 – COMPONENT BASED TECHNOLOGY

DETAILED SYLLABUS

UNIT-I INTRODUCTION TO .NET FRAMEWORK

1.1 Introduction to .NET framework: Dot Net Architecture – Managed Code and the CLR Intermediate Language, Metadata and JIT Compilation–Automatic Memory Management.

1.2 Introduction to .NET framework: Common Type System(CTS) – Common Language Specification (CLS) – Assembly –Namespace .

1.3 Visual Studio .NET– Using the .NET Framework. Exploring the Visual Studio Integrated Development Environment – System requirement – Versions

1.4. The Framework Class Library-.NETObjects – ASP.NET-.NET web services–Windows Forms

UNIT-II INTRODUCTION TO C#

2.1 Elements: Variables and constants–data types– declaration. Operators– types– precedence – Expressions – Program flow – Decision statements – if .. then, if..then..else, select..case

2.2. Loop statements– while..end while, do..loop, for..next, for..each..next.

2.3. Types: Value data types – Structures, Enumerations. Reference data types – Single dimensional– Multi-dimensional arrays–Jagged arrays– Dynamic arrays

2.4 Classes & objects –Abstract & override methods – Creating and using your own classes – Data members and member methods – Instantiate an object –This keyword

UNIT-III WINDOW APPLICATION USING WINDOW FORMS

3.1 Windows programming–Creating windows Forms–Working with Toolbox Controls– Button, Check Box, Combo Box, Label, List Box, Radio Button, Text Box, Group Boxes, Picture Box

3.2. Advanced Controls & Events : Timer , Progress Bar, Month Calendar , ToolTips, Tab Controls, Panels -Events–Click, Close, Deactivate, Load, MouseMove, MouseDown, MouseUp, Keypress ,KeyDown, KeyUp.

3.3 Multiple Document Interface (MDI) Forms – Creating MDI Applications – Creating MDI Child Windows –Arranging MDI Child Windows

3.4 Menus and Dialog Boxes – Creating menus – Menu items – Creating Submenus , Menu Shortcuts, Context menu – Using dialog boxes – show Dialog() method.

UNIT-IV APPLICATION DEVELOPMENT USING ADO.NET

4.1 Features of ADO.NET. Architecture of ADO.NET– ADO.NET providers– connection – Command–Data Adapter–Dataset.

4.2 Accessing Data with ADO.NET: connecting to Data Source, Accessing Data with Data set and Data Reader– Modifying Table data using Command Objects – Understanding Data Set and working with Data Column and DataRow – Data Tables - Working with Data GridView

4.3 Create an ADO.NET application– Using Stored Procedures.

UNIT-V XML

5.1 Introduction: Advantages –HTML Vs XML–Browsing and parsing XML– Creating a XML file–Details and–Wellformed XML document–XML components-elements– Entities Comments–Processing instructions–Attributes

5.2. DTD: Declarations in DTD: Element, Attribute, Entity and Notation– Construction of an XML document – XML Namespaces –Declaring name spaces –Default namespaces – XML schema–Need and use of Schema– Building blocks–Simple elements–Defining attributes Complex elements

5.3. XML with .NET: XML Serialization in the .NET Framework–SOAP Fundamentals– Using SOAP with the .NET Framework.

Text Books

1. Programming In C#, 3E E. Balagurusamy Tata McGraw-Hill Education, 2010
2. Applications of .NET Technology ISRD Group TMGH Education Pvt Ltd., New Delhi 2011