

The Maharaja Sayajirao University of Baroda Polytechnic Higher Payment Program Diploma in Computer Engineering		ACADEMIC YEAR 2021-2022		
Year - III	.NET Technologies (CSE3516)	Lecture Hrs per week	4	
Semester - I		Max marks	100	
Pre-Requisite: OOP Concepts, Database				
CO1	Explain the architecture and components of the .NET Framework, namespaces, class libraries and XML handling.			
CO2	Develop GUI-based applications using Visual Basic .NET by applying variables, decision structures, loops,event handling, windows controls, menus and dialog boxes.			
CO3	Apply C# programming constructs such as classes,inheritance, polymorphism, delegates and events to build modular applications.			
CO4	Use ADO.NET architecture to connect to databases and develop data-driven applications, including stored procedure integration.			
CO5	Design and implement ASP.NET web applications using web controls, HTML controls and IIS configuration for deployment and management.			
BT	1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation			
COURSE CONTENT/SYLLABUS				
Unit	Unit Name	Hrs	Weightage	CO
1	.NET FRAMEWORK: Common Language Runtime (CLR) ,NET Framework Class Library ,NET Windows Forms , Uses of Web Forms & Web Services ,Common Language Runtime (CLR) ,Common Type System , Microsoft Intermediate Language (MSIL) ,Components of the CLR - Distinguish Between the .NET Compilers. Organizing and Executing Managed Code. NET Framework Class Library, Namespace, Input and Output , Serialization, Working with XML, Remoting ,Enterprise Services, Interoperability GUIs.	10	18	CO1
2	VISUAL BASIC.NET: Elements, Types, Windows programming. Variables and constants, data types, declaration. Operators, types, precedence. Expressions. Program flow, Decision statements: - if ..then, if..then..else, select..case, Loop statements :-while..end while, do..loop, for..next, for..each..next. Value data types, Structures, Enumerations. Reference data types, Single-dimensional Multi-dimensional arrays , jagged arrays ,dynamic arrays Creating windows Forms :- windows controls, Button, Check box, Combo box, Label, List box, Radio Button, Text box. Events: – Click, close, Deactivate, Load, Mouse move, Mouse down, Mouse Up. Creating menus: - menu items , context menu, Using dialog boxes, show Dialog() method.	10	18	CO1, CO2
3	C# Language Fundamentals Classes and Objects , Methods , Fields and Properties , Inheritance and Polymorphism, Operator Overloading , Struts - Interfaces ,Arrays ,Indexers and Collections ,Strings and Regular Expressions ,Handling Exceptions ,Delegates and Events.	12	24	CO3
4	ADO .NET & Accessing Data with ADO.NET Architecture of ADO .NET, ADO.NET providers, Connection, Command, Data Adapter, Dataset. Connecting to Data Source, Accessing Data with Data set and Data Reader, Create an ADO.NET application, Using Stored Procedures.	10	18	CO3, CO4
5	ASP.NET: Web Controls: Web Form: Change the Home Directory in IIS - Add a Virtual Directory in IIS- Set a Default Document for IIS, Change Log File Properties for IIS, Stop, Start, or Pause a Web Site. Web Controls, HTML Controls, Using	12	22	CO3, CO5

	Intrinsic Controls, Using Input Validation Controls, Selecting Controls for Applications, Adding web controls to a Page. Server Controls, Types of Server Controls, Adding ASP.NET Code to a Page.			
		54	100	
REFERENCE BOOKS:				
1.	Introduction to Visual basic.NET - NIIT Prentice Hall of India,2005			
2.	Introducing Microsoft .NET- David S. Platt Microsoft Press”, Saarc Edition, 2001			
3.	Introduction to Microsoft® ASP.NET Work Book - Microsoft- Microsoft Press			
4.	Developing XML Web Services Using Microsoft® ASP.NET -Microsoft- Microsoft Press			
5.	Designing Microsoft ASP.NET Applications-Douglas J. Reilly-Microsoft Press			
6.	ASP.NET-Danny Ryan and Tommy Ryan-Hungry Minds Maran Graph			