B. Sc. IT (HONS.): 5th Semester						
Course Title	Course Code	Credits- 06			Total Marks- 90	
		Theory	Tutorial	Practical	Theory	Practical
Dot-Net Technologies	BIT520D1A	04	Nil	02	**60**	**30**

UNIT-I

Introduction to .NET framework: Managed Code and the CLR- Intermediate Language, Metadata and JIT Compilation - Automatic Memory Management. Language Concepts and the CLR: Visual Studio .NET - Using the .NET Framework.The Framework Class Library: .NET objects - ASP .NET - .NET web services – Windows Forms

UNIT-II

Elements: 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.
Types: Value data types – Structures, Enumerations. Reference data types- Single-dimensional – Multi-dimensional arrays – jagged arrays – dynamic arrays
UNIT-III

Windows programming: Creating windows Forms – windows controls – Button, Check box, Combo box, Label, List box, Radio Button, Text box. Events – Click, close, Deactivate, Load, Mousemove, Mousedown, MouseUp.
Menus and Dialog Boxes:Creating menus – menu items – context menu - Using dialog boxes – showDialog() method.
UNIT-IV

Application Development Using ADO .NET

Features of ADO.NET: Architecture of ADO.NET – ADO.NET providers – Connection – Command – Data Adapter – Dataset.
Accessing Data with ADO.NET: Connecting to Data Source, Accessing Data with Data set and Data Reader - Create an ADO.NET application - Using Stored Procedures.

Note: *The Practical Component shall be based on the Unit-I to Unit-IV*

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 Graphics

B. Sc. IT (HONS.): 5th Semester					
Course Title	Course Code	Credits- 06			Total Marks- 90	
		Theory	Tutorial	Practical	Theory	Practical
Microprocessor Systems	BIT520D1B	04	Nil	02	60	30

UNIT-I

Microprocessor: Basic Concepts, what is a Microprocessor 4- 8-l6-32……Evolution of Microprocessor, Microprocessor Programming (Instructions, Machine and Mnemonic' Codes Machine and Assembly Language Programming High Level Language Programming)

UNIT-II

Data Representations : Introduction - Representation of integers (Positive Integers, Maximum Integer, Negative Number Representation, Minimum Integer, BCD Representation) Representation of Real Numbers (Conversion of Real Number, Floating Point Notation, Representation of Floating Point Number, Accuracy and Range in Floating point Representation);Binary Arithmetic (addition and Subtraction of Binary Integers, Overflow and Underflow, Addition of Floating point Number); Other Number System(Some Conventions), Character Representation.

UNIT-III

 8085 Microprocessor Architecture & Programming: Introduction; Organization of the 8085, Data and Address Busses, Addressing modes, Registers in the 3085, Pin Diagram of 8085 microprocessor.

Instruction Set (Instructions Addressing Modes, Space and time Requirements). Addressing I /O Devices

Basic programs in 8085, Stacks& Subroutines

UNIT-IV

-Microprocessor timings: introduction , timing and control unit (Basic Concepts, The Fetch operation, The Execute Cycle, Machine Cycle and state , instruction and data flow

Timing of 8085: 8085 buses, Opcode fetch cycle, Memory and I/O read cycles, Memory Acknowledgement Read Cycles, Memory and I/O Write Cycles, Interrupt Timings, Interrupt Acknowledgement Machine Cycle, vectored and non-vectored interrupts , Bus Idle Machine Cycle, The HALT and HOLD States.

Note: *The Practical Component shall be based on the Unit-I to Unit-IV*

References

1. R. Gaonkar, Microprocessor Architecture, Programming, and Applications with the 8085, Penram.
2. Pal, Microprocessors: Principles and Applications, Tata McGraw-Hill.
3. Microprocessor and Microcomputer Based System Design, by Rafiq- u - Zaman