

**Paper Code: BCA 205**  
**Paper ID: 20205**  
**Paper: Front End Design Tool VB.Net**

<b>L</b>	<b>T</b>	<b>C</b>
<b>3</b>	<b>1</b>	<b>4</b>

**Pre-requisite:**

- Basic Programming Constructs
- Object Oriented Concepts

**Aim**

To understand Object Oriented and Object based programming paradigm in event based programming environment.

**Objectives**

- To get the Knowledge about different Object Oriented Features.
- To understand disconnected architecture of .Net.

**INSTRUCTIONS TO PAPER SETTERS:**

**Maximum Marks : 75**

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be 12.5 marks

**UNIT I**

**Introduction:** Introduction to .Net, Two tier and Three tier client server model, .Net Architecture, Features of .Net, Advantages of .Net, .Net Framework, CLR, CTS, CLS, Assemblies, Memory management issues – Garbage Collector and collection process, Exception Handling, Code Access Security. [T1,R2]

**[No. of Hrs: 11]**

**UNIT – II**

**Introduction to Visual Basic.Net IDE:** Creating a project, Types of project in .Net, Exploring and coding a project, Solution explorer, toolbox, properties window, Output window, Object Browser. [T1, T2]

**VB.Net Programming Language:** Similarities and Differences with Visual Basic, Variables, Comments, Data Types, Working with Data Structures – Arrays, Array Lists, Enumerations, Constants, Structures; Introduction to procedures, calling procedures, argument passing mechanisms, scope of variable.

**Control Flow Statements** – conditional statement, Loops, Nesting of Loops, MsgBox and Input Box. [T1,R2]

**[No. of Hrs: 11]**

**UNIT-III**

**GUI Programming:** Introduction to Window Applications, Using Form – Common Controls, Properties, Methods and Events. Interacting with controls - Textbox, Label, Button, Listbox, Combobox, Checkbox, Picture Box, Radio Button, Panel, scroll bar, Timer, ListView, TreeView, toolbar, Status Bar. Dialog Controls, Creating and Using MDI applications, Toolbar, Status Bar, Creating custom controls, Creating Menus. [T1, T2, R1]

**Object Oriented Features:** Classes and Objects, Access Specifiers: Private, Public and Protected, Building Classes, Reusability, Constructors, Inheritance, Overloading, Overriding, Creating and Using Namespaces. [T2, R1]

**[No. of Hrs: 11]**

Note : A Minimum of 40 Lectures is mandatory for each course.

Syllabus of Bachelor of Computer Applications (BCA), approved by BCA Coordination Committee on 26<sup>th</sup> July 2011 & Sub-Committee Academic Council held 28<sup>th</sup> July 2011. W.e.f. academic session 2011-12

#### **UNIT – IV**

**Introduction to ADO:** ADO vs ADO.Net, ADO.Net data namespaces, ADO.Net Object Model, Accessing data from Server Explorer, Creating Connection, Command, Data Adapter, Data Reader and Data Set with OLEDB and SQLDB, Data Binding. [T1, R1, R2]

**Crystal Report :** Connection to Database, Table, Queries, Building Report, Modifying Report, Formatting Fields, Publishing and exporting reports.. [T2]

**[No. of Hrs: 11]**

#### **TEXT BOOKS**

[T1] Visual Basic 2010 programming Black Book, by Kogent Learning Solutions, Wiley India

[T2] Visual Basic 2010 Step By Step, Michael Halvorson, PHI

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#### **REFERENCE BOOKS**

[R1] Mastering Microsoft Visual Basic 2010, Evangelos Petroustos, Wiley Publications

[R2] Beginning Visual Basic 2010 (Wrox)

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