

## **PAPER VI: VISUAL PROGRAMMING WITH DBMS**

Credits : 4

Hours : 75

*Objective : To study the Visual Basic Programming language and DBMS concepts.*

### **UNIT – I**

The Visual Basic Integrated Development Environment – Toolbar - Form Properties – Events – Variables – Data types - Constants – Operators - User-Defined Data Types - First VB Project - Toolbox Revisited: Creating controls - Textbox – Label - Command Button - Access Keys - Check Box - Radio button - Frame control.

### **UNIT – II**

Programming Constructs: Displaying output on the form - Decision making - Looping construct – Arrays - Dynamic arrays - Static Arrays - Array Operations. Functions and Procedures: Built in Functions - User defined functions - Sub procedures. Advanced Controls: List and combo boxes - FlexGrid. Interfaces: Message Box - Input Box - Common dialog controls –Menu - MDI form.

### **UNIT – III**

Database Programming: Database Interface - Open Database Connectivity (ODBC) - Create a Data Source. SQL: Features of SQL - SQL Operators - DDL - DML – DQL.

### **UNIT – IV**

Database Programming using ADO: Connection object - Connection string - Record set object - Connecting VB with back end RDBMS - Command object - Data View Window - ADO Data Binding - Form Designer through DataEnvironment. Reports: Section of a report - Data Environment - Data report – Crystal report.

### **UNIT – V**

Database Management System – Advantages – Components – Feasibility Study – Class Diagram – Normalization – 1 NF – 2 NF – 3 NF.

### **TEXT BOOK**

1. Gary Cornell. *Visual Basic 6 from the Ground up*. Tata McGraw Hill – 1999.
2. A. Murugan, K. Shyamala and Grasha Jacob. *Visual Basic programming: A step by step approach*. Margham publication, 2011.
3. G.V. Post ,”*Data Base Management Systems*”, Tata McGraw Hill, 2000.