

## **BCA-355: Programming Using Visual Basic**

**Maximum Marks: 100**

**Minimum Pass Marks: 35**

**Time: 3 hours**

**External: 80**

**Internal: 20**

**Note:** Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of objective type/short-answer type questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. Student will be required to attempt FIVE questions in all. Question Number 1 will be compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each Unit. All questions will carry equal marks.

### **UNIT – I**

Introduction to VB: Visual & Non-Visual programming, Procedural, Object-Oriented, Object-Based and Event-Driven Programming Languages, VB as Even-Driven and Object-Based Language, VB Environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties Window, Form Designer, Form Layout, Immediate window, Default Controls in Tool Box Visual Development and Event Driven programming

### **UNIT – II**

Basics of Programming: Variables: Declaring Variables, Types of variables, Converting Variables Types, User Defined Data Types, Forcing Variable Declaration, Scope & Lifetime of Variables. Constants: Named & Intrinsic, Operators: Arithmetic, Relational & Logical operators, Input/output in VB: Various Controls for I/O, Message box, Input Box, Print statement.

### **UNIT – III**

Decision Statements in VB - if statement, if-then-else, select-case; Looping Statements in VB: do-loop, for-next, while-wend; Exit statement, Nested Control Structure; Arrays: Declaring and using Arrays, One-dimensional, Two-dimensional and Multi-dimensional Arrays, Static and Dynamic arrays, Array of Arrays.

### **UNIT – IV**

Procedures: General & Event Procedures, Subroutines, Functions, Calling Procedures, Arguments - Passing Mechanisms, Optional Arguments, Named Arguments, Functions Returning Custom Data Types

Simple Program Development in VB such as Sum of Numbers, Greatest among Numbers, Checking Even/Odd Number, HCF of Two Numbers, Generate Prime Numbers, Generate Fibonacci Series, Factorial of a Number, Searching, Sorting, etc.

### **TEXT BOOKS:**

- Steven Holzner, “Visual Basic 6 Programming: Black Book”, Dreamtech Press.
- Evangelos Petroustos, “Mastering Visual Basic 6”, BPB Publications.
- Julia Case Bradley & Anita C. Millspaugh, “Programming in Visual Basic 6.0”, Tata McGraw-Hill Edition

### **REFERENCE BOOKS:**

- Michael Halvorson, “Step by Step Microsoft Visual Basic 6.0 Professional”, PHI
- “Visual basic 6 Complete”, BPB Publications.
- Scott Warner, “Teach Yourself Visual basic 6”, Tata McGraw-Hill Edition
- Brian Siler and Jeff Spotts, “Using Visual Basic 6”, Special Edition, PHI.