SANATAN DHARMA COLLEGE, AMBALA CANTT

College with Potential for Excellence, UGC,New Delhi
NAAC Accredited Grade "A+" with CGPA 3.51 in 3rd cycle
ISO 9001:2015 & ISO 14001:2015 Certified

Department of Computer Science
Lesson Plan (Session 2022-2023)

Class: BCA
Sem: IV
Course Code: BCA – 355
Nomenclature: Programming Using Visual Basic
Duration: 16 Weeks   **Dates: 5 Sep,2022- 25 Dec, 2022**

Syllabus

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 Petroutsos, "Mastering Visual Baisc 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.

Course Outcomes

After the completion of this course, prospective Computer professionals will have the ability to

	Semester-V **Course- BCA-355: Programming Using Visual** **BasicAt the end of course student should be** **able to:**
CO-1	Students list the visual programming concepts.
CO-2	Explain basic concepts and definitions.
CO-3	Express constants and arithmetic operations.
CO-4	Distinguish variable and data types.
CO-5	Students code visual programs by using Visual Basic work environment.
CO-6	Distinguish and compose events and methods.

CO-7	Recognize and arrange control structures.
CO-8	Design a complete program using visual programming concepts.
CO-9	Students prepare various projects by helping visual programming.
CO-10	Manage and analyse prepared project with programs.
CO-11	Interpret and report obtaining results.
CO-12	Explain basic concepts and definitions.
CO-13	Express constants and arithmetic operations.
CO-14	Distinguish variable and data types.
CO-15	Students code visual programs by using Visual Basic work environment.
CO-16	Distinguish and compose events and methods.

S.No	Instructional Technique	Assessment Methods(AM)
1	Chalk & Talk	**Assignments**
2	ICT tools	**Quiz**
3	Group discussions	**Group Discussions**
4	Industrial visit	**Oral Tests**
5	Case studies	**Sessional**
6	Small Projects	**Presentations**
7	Workshop	**Seminar**
8	Spoken Tutorials	**University Exams**
9	Flipped Class	
10.	**E-Resources**	

Detailed Lesson Plan

Week	Date	BCA-355: Programming Using Visual Basic	Instructional Technique	Assessment Methods
1	5- Sep-22	**Introduction to VB**		
	6-Sep-22	**Visual & Non-Visual programming**	**2-(PPT/Projector)**	**----**
	7- Sep-22	**Procedural, Object-Oriented, Object-Based and Event-Driven Programming Languages**	**2(PPT/Projector)**	**1**
2	12-Sep-22	**VB as Even-Driven and Object-Based Language**	**1**	**1**
	13-Sep-22	**VB Environment: Menu bar, Toolbar, Project explorer**	**1**	**1,2,3,4**
	14-Sep-22	**Toolbox, Properties Window, Form Designer, Form Layout, Immediate window, Default Controls in Tool Box Visual Development and Event Driven programming**	**2-(PPT/Projector)**	**1,2,3,4**
3	19-Sep-22	**Default Controls in Tool Box Visual Development and Event Driven programming**	**2-(PPT/Projector)**	**1,2,3,4**
	20-Sep-22	**Default Controls Cont…..**	**2-(PPT/Projector)**	**1,2,3,4**
	21-Sep-22	**Revision**	**--**	**---**
	23-Sep-22	**Holiday**	**--**	**---**
4	26-Sept-22	**Holiday**	**--**	**---**
	27-Sept-22	**Basics of Programming: Variables: Declaring Variables**	**2-(PPT/Projector)**	**1,2,3,4**
	28-Sept-22	**Types of variables, Converting Variables Types**	**2-(PPT/Projector)**	**1,2,3,4**
5	3-Oct-22	**User Defined Data Types, Forcing Variable Declaration**	**9**	**1,2,3,4**
	4-Oct-22	**Scope & Lifetime of Variables**	**9**	**1,2,3,4**
	5-Oct-22	**Assignment -1**	**--**	**---**

6	10-Oct-22	Constants: Named & Intrinsic, Operators: Arithmetic, Relational & Logical operators	9	1,2,3,4,6
	11-Oct-22	Operators Cont…..	8,10,2	1,2,3,4,
	12-Oct-22	Input/output in VB: Various Controls for I/O, Message box, Input Box, Print statement.	8,10,2	1,2,3,4,
	13-Oct-22	**Holiday**	--	---
7	17-Oct-22	Message box, Input Box, Print statement Cont….	2-(PPT/Projector)	1,2,3,4
	18-Oct-22	Message box, Input Box, Print statement Cont…	2-(PPT/Projector)	1,2,3,4
	19-Oct-22	Revision	2-(PPT/Projector)	1,2,3,4
8	22-Oct-22 to 26-Oct-22	**Diwali Vacation**		
9	31-Oct-22	Decision Statements in VB - if statement, if-then-else	8,10,2	1,2,3,4,
	1-Nov-22	**Holiday**	--	---
	2-Nov-22	Select-case	8,10,2	1,2,3,4,
10	7-Nov-22	Looping Statements in VB: do-loop, for-next, while-wend; Exit statement	9	1,2,3,4
	8-Nov-22	**Holiday**	--	---
	9-Nov-22	Loop Cont….	2-(PPT/Projector)	1,2,3,4
11	14-Nov-22	Nested Control Structure; Arrays: Declaring and using Arrays	2-(PPT/Projector)	1,2,3,4
	15-Nov-22	One-dimensional, Two-dimensional and Multi-dimensional Arrays	2-(PPT/Projector)	1,2,3,4
	16-Nov-22	Static and Dynamic arrays, Array of Arrays.	2-(PPT/Projector)	1,2,3,4
12	21-Nov-22	Sessional	2-(PPT/Projector)	1,2,3,4

	22-Nov-22	Arrays Cont….	2-(PPT/Projector)	1,2,3,4
	23-Nov-22	Revision	--	---
13	28-Nov-22	Procedures: General & Event Procedures,	6	1,2,3,4
	29-Nov-22	Subroutines, Functions	6	1,2,3,4
	30-Nov-22	Calling Procedures	2-(PPT/Projector)	1,2,3,4
14	5-Dec-22	Arguments - Passing Mechanisms	2-(PPT/Projector)	1,2,3,4
	6-Dec-22	Optional Arguments, Named Arguments	2-(PPT/Projector)	1,2,3,4
	7-Dec-22	Functions Returning Custom Data Types	6	1,2,3,4
15	12-Dec-22	Simple Program Development in VB such as Sum of Numbers	6	1,2,3,4
	13-Dec-22	Greatest among Numbers, Checking Even/Odd Number	6	1,2,3,4
	14-Dec-22	HCF of Two Numbers, Generate Prime Numbers, Generate Fibonacci Series, Factorial of a Number, Searching, Sorting, etc.	6	1,2,3,4
16	19-Dec-22	Revision	--	---
	20-Dec-22	Revision	--	---
	21-Dec-22	Revision	--	---