ST. JOSEPH'S EVENING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER APPLICATIONS
TEACHING LESSON PLAN FOR VISUAL PROGRAMMING
BCA 1st Semester (June, 2018 to September, 2018)

Objective of the subject: To enable students understand graphical user interface software and coding, to learn future technologies based on visual programming and enable them to create a software based on visual programming.

Name of the Faculty: Mrs. Annie Syrien

Time/Hours required – 60 hrs

Sl. No.	Module and Topics	No. of Hours.	Teaching methods	Evaluation of Learning process
Unit I	**Introduction**: Windows Concepts, Objects and events, Define design and development process, Identify elements of IDE, Write, run, save, and print a project, Use online Help.	**4 Hrs** 2 2	Lecture method and practical's	Questionary and Practical assignment task in lab
Unit II	**Introduce controls and their properties:** Text boxes, group boxes, check boxes, radio buttons, picture boxes and naming conventions, User friendly features: access keys, default and cancel buttons, tab sequence, Tool Tips, resetting focus, Changing properties at run-time, Concatenate strings.	**4 Hrs** 2 1 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab

Unit III	**Variables, constants and calculations:** Declaration of variables and constants considering data types and scope, Explicit data type conversions, Perform calculations using arithmetic operators and order of operations, Use of accumulators and counters, Use formatting functions to format output.	**4 Hrs** 2 1 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab
Unit IV	**Decisions and conditions:** Use If statements to control the flow of logic, Use And and/or operators, Call event procedures, Input validation, Debug tools - set break points, stepping and observation of intermediate results.	**4 Hrs** 2 1 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab programs on the same
Unit V	**Arrays:** Declare arrays and refer to elements using subscripts, Use for Each/Next statements, Structure Variables, Store data in multidimensional array.	**2 Hrs** 1 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab programs on the same
Unit VI	**Lists, Loops, and Printing:** Create and use list boxes and combo boxes, Use Do/Loops and For/Next statements, Send information to the printer.	**2 Hrs** 1 1	Lecture Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab

Unit VII	**Menus, procedures and functions:** Create menus and submenus for program control, Write reusable code in sub procedures and sub functions.	**6 Hrs** 3 2 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab Through programs
Unit VIII	**Toolbars and Status bar**: Creating toolbars, Adding images to toolbars, Writing code to work with toolbars, Creating and using a status bar, Adding panels to the status bar.	**4 Hrs** 2 1 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab
Unit IX	**Other controls:** TabControl, MonthCalendar and Date/TimePicker, Common Dialog (Open/SaveFile), ProgressBar.	**4 Hrs** 1 2 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab
Unit X	**File handling and file controls in VB:** Basic on files, how to read and write in files to other sources in computer and vice versa	**4 Hrs** 1 3	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab
Unit XI	**Database Connectivity:** Data base basics & database engine, Create a database in Access Through VB, The nature of a relational databases, The data controls (DAO and ADO), Data Bound controls, Working with database objects in code, Data Manipulation through VB – Forms,	**12 Hrs** 2 1 1 2 2 2	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab

	Develop a database Application.	2		
Unit XII	**Introduction to Graphics and animation:** Introduction Drawing a straight Line, Rectangle, Ellipse Creating Animation: Moving an object	**2 Hrs** 1 1	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab
Unit XIII	**Multiple Document Interface (MDI)** Overview of MDI, Creating parent and child forms, Writing code for parent and child forms, Child window management, Creating applications.	**4 Hrs** 1 2 1	Playing Videos Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab
Unit XIV	**Creating and using reports:** Printing with windows forms, Data reports	**4 Hrs** 2 2	Power Point presentations through practical illustration of controls in visual basic software	Questionary and Practical assignment Task in lab