ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Computer Science)

Course: Visual Basic & Database Interface (3435)

Level: Post Graduate **Semester: Autumn, 2013**
Total Marks: 100 **Pass Marks: 40**

ASSIGNMENT No. 1

All questions carry equal marks.

Q.1 a) Do a comparative analysis of Traditional programming and Object Oriented programming.

   b) What is meant by a Translator? Explain its different types. Also do the comparison between Interpreter and Compiler.

Q.2 Differentiate between Operator and Operand by giving an example? Explain all Arithmetic and logical operators with their precedence supporting an example, used in Visual Basic.

Q.3 a) What is meant by Properties and Methods of a control? List and explain the effect of button control.

   b) Write down the steps to create and save a project in Visual Basic.

Q.4 a) Explain the Select case in VB by giving a code example.

   b) Write a program in VG that takes the temperature in a text box from the user and then display the message according to the temperature given below:
   Temperature >= 30   "HOT"
   Temperature >= 10 and Temperature < 30   "PLEASANT"
   TEMPERATURE< 10   "COOL"

Q.5 a) Explain the structure of FOR and WHILE loop. Also do a comparative analysis among DO. . . . WHILE, FOR. . . .NEXT and WHILE. . . WEND.

   b) Write a visual basic code to print the following series. The code should accept the limit of series from user in a text box and display the series in another text box.

$$0, 1, 1, 2, 3, 5, 8, 13,\ldots$$

ASSIGNMENT No. 2

Total Marks: 100   **Pass Marks: 40**

All questions carry equal marks.

Q.1 a) Explain single and multi-dimensional array by supporting a VB code example.
   b) What is meant by Procedures in VB? Explain its different types.

Q.2 a) What is meant by an SDI and MDI form in VB? Write down the steps to create an SDI and MDI forms in VB.
   b) Explain the steps to create menus and submenus on a form.

Q.3 a) What is meant by dialog box control? Explain different types of dialog box controls used in VB.
   b) Explain different Drawing controls.

Q.4 a) Explain the importance and usage of ADO data control and Data Bound List control in VB.
   b) How MS ACCESS database can be accessed in Visual Basic.

Q.5 **PROJECT:**
   Develop a project to display the flags of four different countries, depending on the setting of the option buttons. In addition, display the name of the country in the large label under the flag image. The user can also choose to display or hide the form's title, the country name and the name of the programmer. Use check boxes for the display/hide choices.
   Include keyboard access keys for all option button, check boxes and command buttons. Also include Tool Tips for the command buttons.

3435 Visual Basic & Database Interface
Recommended Book: Mastering In Visual Basic 6.0 by Evangelos Petroutsos
Course Outlines:

Unit l: Introduction
Traditional Programming Versus Visual Basic, Introduction to Visual Basic, Terminologies used in Visual Basic, Working with Integrated Development Environment IDE), Your first VB Project (Creating, Saving And Running a Simple Project)

Unit 2:   Working with Form and Controls
Introduction to Properties, Events and Methods, Form Object, Label, Text box, Command Button Control, Check box and Option button Controls, Programming Projects

Unit 3:   Fundamental of Programming in Visual Basic
Working with Visual Basic Data types, Variables and Constant, Input/Output in Visual Basic, Operators, Programming Projects

Unit 4:   Decisions and Loops
Control Flow Statement (If-then, If-then-else,Select Case Statement), Loop Statement (Do..Loop, For..Next, While..Wend), Nested Control Statement, Programming Projects

Unit 5:   Arrays and Procedures
Array Declaration (Single & Multidimensional Arrays), Storing and Accessing Data in Array, Control Array, Visual Basic Procedures, Visual Basic Function, Programming Projects

Unit 6:   VB Menus and MDI Form
Designing and Using Menus, Menu Builder, Menu Properties, Manipulating Menus at Runtime, Menu Arrays, SDI (Single Document Interface) Form ,MDI (Multi Documents Interface) Form and its Child, Programming Projects

Unit 7:   Additional control and Object
List Box and Combo Box, Scroll Bar and Slider control, File controls, Drawing Control (Line, Shape, Image), Common Dialog Box Control (Color Dialog Box, Font Dialog Box, File Open and File Save Dialog Box, Print and Help dialog box), Programming Projects

Unit 8:   Database Programming with Visual Basic
Introduction to Database, Data Control (Properties, Methods), Understanding Relational Concepts (Using SQL), Using the Visual Manager (Creating Database and Entering Data in VB), Validating Data, Using Data Bound List Control, Programming Projects

Unit 9:   ADO Controls, Data Report and Using the Debugger
The ADO Data control Connecting ADO Control to Data, Using SQL, Finding data, Table Updates, Adding Data Reports to Project, Designing & Printing Data Reports, Using the Debug Toolbar, Watch, Immediate and Local window, Programming Projects.