SCHOOL OF PROFESSIONAL STUDIES

BACHELOR OF INFORMATION COMMUNICATION TECHNOLOGY

UNIT CODE/NAME: BBIT 225: PROGRAMMING IN VISUAL BASIC

January – April 2018/2019 End Semester Exam - Time: 2 Hours

Instructions: Answer Question ONE (Compulsory) and any other TWO questions.

QUESTION ONE

a) Outline the functions of each of the following elements of Integrated Development Environment (IDE) in a Visual Basic Program. **(4 marks)**
   i) Project form
   ii) Menu bar
   iii) Tool bar
   iv) Code window

b) Interpret the following Visual Basic program code. **(5 marks)**

```
Public Sub SubFrmCntr
With Form 1
.Top = (Screen.Height - .Height) / 2
.Left = (Screen.Width - .Width) / 2
End With
End Sub
```

c) Write a Visual Basic program that allows a user to enter the strings 'Alex' and 1234 into respective text boxes in a login screen. If the two are valid, a form named **frmain** is opened, otherwise a message **'invalid name or password'** is displayed on a message box. Attach the code to a command button. **(5 marks)**

d) Mueni created a Visual Basic program interface for her application. Explain three modes through which she could set the properties for the controls included in the interface.**(6 marks)**

e) State the difference between conditional and unconditional loop as used in programming. **(4 Marks)**

f) i) List two database objects in Visual Basic other than ADO that may be used to manipulate a database file. **(2 marks)**
   ii) Distinguish between method and a function as used in a Visual Basic Programming language. **(4 marks)**

QUESTION TWO

a) Define each of the following terms as used in a Visual Basic Programming language: **(3 marks)**
   i) Form module
   ii) Application
   iii) Project

b) i) Explain a challenge that companies with applications built using Visual Basic 6.0 compiler may have with the changing software technology. **(2 marks)**
   ii) Outline four limitations of using Visual Programming languages. **(4 marks)**

c) Write a Visual Basic program that displays the sequence of numbers; 50, 45,40,35,…0 on a list box together with their cumulative sum. Use while…wend loop. Attach the code to a command button. **(6 marks)**

QUESTION THREE

a) A programmer was advised to decompose a large module into multiple procedures. Explain two reasons for this. **(4 marks)**

b) Write a Visual Basic Program statement that could be used to perform each of the following: **(6 marks)**

i) display an image named bitmap.gif using image control;

ii) display the string "Hello Kenya...." On a label in a second form from the first form;

iii) position a shape at centre horizontally on the screen.

c) i) In a Visual Basic program, an array named Sales stores 10 decimal values. Write a statement that resizes the array to 50 elements while retaining the previous values. **(2 marks)**

ii) Assume that a procedure has the following array declaration:

Const x As Integer = 30

Dim intPoints (x) As Integer

Write a For...Next loop segment of the code that add each element of the array into a listbox control. **(3 marks)**

QUESTION FOUR

a) Explain the function of each of the following sections of a Visual Basic *DataReport*:

i) report footer **(2 marks)**

(ii) page footer. **(2 marks)**

b) Outline the function of each of the following Visual Basic database tools: **(3 marks)**

i) Data Environment

ii)Data Project

iii) Visual Data Manager

c) Distinguish between Unload Me and Form1.Hide as used in a Visual Basic Programming language. **(4 marks)**

d) Outline four functions available in the RptFunction control of a Visual Basic program language. **(4 marks)**

QUESTION FIVE

a) An international company dealing with beauty products pays a commission to the sales workers based on the criteria shown in table 1. Use it to answer the question that follows:

Sales Volume ($)	Commission
5000 and over	15 %
4000-4999	12 %
3000-3999	9 %
2000-2999	6 %
Less than 2000	3 %

Write a Visual Basic program that allows a user to enter the name of the sales agent and the sales volume made using text boxes. The program should then compute the commission and output the sales agent and the commission in a picture box. Use select case control structure and attach the code to a command button. **(5 marks)**

b) Distinguish between Project file and form file as used in visual studio. **(5 marks)**

c) Give the output for each of the following section of code and explain **(5 marks)**

i) Dim str1 As string
str1 = "university of scott"
Print strConv(str1, vbBinary)

ii) Dim j as Integer
j = 1.66
Print Round (j)

SCHOOL OF PROFESSIONAL STUDIES

BACHELOR OF INFORMATION COMMUNICATION TECHNOLOGY

UNIT CODE: BCT 211, UNIT NAME: INTRODUCTION TO OBJECT ORIENTED PROGRAMMING

September – December 2018 End Semester Exam - Time: 2 Hours

Instructions: Answer Question ONE (Compulsory) and any other TWO questions.

Question One (30 Marks)

a) Explain what is meant by the following OOP concepts **(10 marks)**

i) Object

ii) Class

iii) Encapsulation

iv) Inheritance

v) Polymorphism

b) Define a class in C++ with following description: **(8 Marks)**

Private Members

- A data member Flight number of type integer
- A data member Destination of type string
- A data member Distance of type float
- A data member Fuel of type float