MURANG'A UNIVERSITY COLLEGE

(A Constituent College of Jomo Kenyatta University of Agriculture and Technology)
University Examinations 2015/2016
SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

BIT 2118: APPLICATION PROGRAMMING I

COURSE: B.Sc. IT	**TIME: 2HRS**
DAY/TIME: Monday 8.30 a.m.	**DATE: 7/12/15**

Instructions: Answer Question 1 and Any Other Two.

Question One (20 marks)

(a)   Explain the meaning of the following terms

   (i)   Debugging

   (ii)   Syntax error

   (iii)   Me.close()   (3 marks)

(b)   Statethe two ways of assigning values to a property. Write down appropriate examples.

                                                                                                        (4 marks)

(c)   Describe the following control structures using some Visual Basic examples

   (i)   Sequential structure

   (ii)   Selection structure

   (iii)   Iteration structure   (6 marks)

(d)   Give the syntax of the MessageBox function, and explain each of the parameters used
   in this function.   (4 marks)

(e)   Write a program to display the message "Welcome to BSc IT Year 2" in a label **lblMsg**
   when a button**cmdMsg** is clicked.   (3 marks)

(f)   You are required to write a program which can allows a user to type a digit between 0-9
   in a textbox **txtNumber** and then display the digit equivalent in words in a label
   lblNumber. For Example when user type digit 1 the message "Number One" is
   displayed using:

   (i)   The **If..Then** structure   (5 marks)

   (ii)   The **Select..Case** structure   (5 marks)

Question Two (20 marks)

(a)   Draw the interface for a simple calculator naming the various controls and their functionality. (8 marks)

(b)   Write appropriate code on affected controls to ensure that the calculator can perform the following calculations.

    (i) $0 + 1 = 1$

    (ii) $1 + 2 = 3$

    (iii) $4/2 = 2$

    (iv) $3 * 2 = 6$ (12 marks)

Question Three (20 marks)

(a)   Explain the function of the following controls

    (i)   PictureBox

    (ii)   Radio Button

    (iii)   Masked text box (6 marks)

(b)   You are required to write a program to calculate the average of the first twenty positive odd integers, and display the sum in **lblSum** and average in **lblAverage**. The program should be written using:

    (i)   The **Do … While** loop (5 marks)

    (ii)   Rewrite the program using the **Do … Until** loop (5 marks)

    (iii)   Rewrite the program using the **For … Next** loop (4 marks)

Question Four (20 marks)

(a)   Explain the following properties of a windows form:

    (i)   Class definition

    (ii)   Namespace

    (iii)   Dot member access operator

    (iv)   Name property (4 marks)

(b)   Explain the functionality of the options found in the Format menu. (6 marks)

(c)   You are provided with a MS-Access database (StudentsDatabse.mdb), which has one table (Student) and a Visual Basic form interface to allow adding, deleting and searching records.You are required to write code to allow linking to the database and provision of the above functions. (10 marks)///