



TECHNICAL UNIVERISTRY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR DEGREE IN:
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
(BSIT)

EIT 4203: WINDOWS APPLICATION PROGRAMMING

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2014

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- Answer Booklet

This paper consists of **FIVE** questions. Attempt question **ONE (Compulsory)** and any other **TWO** questions
Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

Question One (Compulsory)

- a) Define the term ‘Variable’ (2 marks)
- b) List TWO ways of writing comments in Visual Basic (2 marks)
- c) Discuss each of the following Visual Basic data types and in each case state where each is applicable:
(i) Integer (2 marks)
(ii) Single (2 marks)
- d) With the help of an example, explain the relevance of Option Explicit statement in Visual Basic (2 marks)
- e) Study the program code below and answer the question that follow:
Private Sub CmdTotal Click ()
Label Text 1. Caption = “Enter a value
Me Print “The Value entered is” & & Text1.Text
End sub

Identify the following items used in the code and write them down:

- (i) Any two objects (2 marks)
- (ii) The event involved (2 marks)
- (iii) One property (2 marks)
- (iv) One method (2 marks)

- f) (i) State the importance of an MDI form object in an application. (2 marks)
(ii) State how you would set to make a form a child form in an MDI application (2 marks)

- g) Write at most two lines of code that can be used to perform the following tasks
- (i) Hide a command button (2 marks)
 - (ii) Change form1's background colour (2 marks)
 - (iii) Produce a tip when the mouse pointer rests on a command button (2 marks)
 - (iv) Produce a message box which has the title "Welcome Home." and a message "Education is power" (2 marks)

Question Two

- a) Write a short program to read the value of X and Y, and display the results obtained on a message box by evaluate the following equation:

$$z = (x + y)/(x-y) \quad (5 \text{ marks})$$

- b) Study the following program:

```
Dim M as integer
X = 0
Y = 0
For M = 1 TO 5
X = (X + M)
Y = X
Next
Me. Print "Y equals" & Y
```

- (i) Write the output of this program (1 mark)
- (ii) Implement the program above by making use of DO....while Loop structure (4 marks)

- c) A cloth showroom has announced the following seasonal discounts on purchase of items:

Purchase Amount (Ksh)	Discount (%)
0 to 100	5.0
101 to 200	7.5
201 to 300	10.0
Above 300	15.0

You are required to write a program to compute the NET amount to be paid by a customer:

- (i) Sketch a well labeled GUI to implement the program (2 marks)
- (ii) State any assumed property values for the controls used (2 marks)
- (iii) Write the program code (6 marks)

Question Three

- a) Explain how you would come-up with the following menu:

<u>F</u> ile	<u>W</u> indow
<u>N</u> ew	<u>C</u> ascade
<u>O</u> pen	<u>T</u> ile
<u>E</u> xit	

Use the table below:

Menu	Name	Caption	Indent Times

NB: There is a separator bar between Open and Exit Submenus

(10 marks)

b) Write a code to be attached to the following menus:

(i) Cascade

(5 marks)

(ii) New (Display a form named from new)

(5 marks)

Question Four

a) Explain the meaning and purpose of each of the following Visual Basic Commands and give an example in each case:

(i) CLS

(ii) Cint

(iii) RGB

(6 marks)

b) List the steps you would follow in order to perform the following tasks in an MDI application:

(i) Make MDI form containing a command button

(4 marks)

(ii) Specify the start-up form

(4 marks)

c) (i) Explain what you understand by the term ActiveX control

(2 marks)

(ii) Outline the steps you would follow to add an ActiveX control in the toolbox

(4 marks)

Question Five

a) Which of the following is a valid variable name. Give an explanation for your answer:

(i) Sumtotal

(ii) &Name

(4 marks)

b) Explain the function of each of the following windows found in the VB IDE:

(i) Project Explorer

(2 marks)

(ii) Immediate Window

(2 marks)

(iii) Properties Window

(2 marks)

(iv) Form Layout Window

(2 marks)

c) You have been assigned the task by Hamisi High School to prepare an application that will be used to accept marks in five subjects and calculate and display the total and average. The application should also calculate and display the average grade which is based on the average mark using the classification below. Your application inputs through textbox controls and displays by using a label control:

Average Mark	Grade
80 -100	A
70 – 80	B

60 – 70	C
50 – 60	D
0 - 50	E

(i) Sketch the GUI

(2 marks)

(ii) Write the code for your program

(8 marks)