TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATIONS FOR DEGREE IN:
BACHELOR OF TECHNOLOGY IN INFORMATION TECHNOLOGY
(BTIT 14S S-FT)

EIT 4106: APPLICATION BUILDING

END OF SEMESTER EXAMINATION
SERIES: APRIL 2015
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 application building, explain any THREE features of visual basic **(4 marks)**

b) State any THREE visual basic edition that the user uses **(3 marks)**

c) With a suitable diagram, differentiate the following **(6 marks)**
    (i) List box and combo box
    (ii) Code wind and GUI
    (iii)   Error value and empty value

d) Briefly explain the TWO methods used to access files in application building **(4 marks)**

e) Define a bug, state and explain the various types of bugs that are available in Visual Basic

(7 marks)

f) With a suitable diagram, describe the application development cycle (ADC) **(6 marks)**

Question Two

a) Briefly describe the THREE types of code modules that visual basic supports   **(6 marks)**

b) Explain the following with suitable examples:
     (i) Enums
     (ii) List box and combo box   **(4 marks)**

c) Outline the steps, on how to create objects in application building   **(4 marks)**

d) Briefly describe any THREE advantages of using prototypes as a tool for rapid application development (RAD)   **(6 marks)**

Question Three

a) Explain any THREE advantages of using Visual Basic Language as a GUI   **(6 marks)**

b) You are required to prepare a simple application for a middle-level college to grade students. The application should accept marks scored in four subjects which should be entered through text boxes and computes average mark and award. When a certain command is clicked, average mark and award should be displayed through message boxes. The grading system is shown below:

Average Mark	Award
0 – 5	Fail
0 – 10	Pass
10 – 15	Credit
15 – 2	Distinction

Answer the following questions:
 (i) Sketch the GUI
 (ii) Write the VB code for the above application   **(8 marks)**

Question Four

a) Explain briefly on the following topics as used in application building:
     (i) Properties windows
     (ii) How to create standalone windows program
     (iii)   File system controls

     Observe the following table and answer the questions that follow

b)

The above diagram is a debug tool bar, explain the controls I, J, K, L, M, N, 0, 8 with their function. **(6 marks)**

Question Five

Create and design a graphic user interface for a simple calculator **(20 marks)**