TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION

TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

Bsc IT Sept 2015

BIT 2118 : **APPLICATION PROGRAMMING I**

END OF SEMESTER EXAMINATION

SERIES:DECEMBER2016

TIME:2HOURS

DATE: Pick DateSelect MonthPick Year

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of **FIVE** questions. Attemptquestion ONE (Compulsory) and any other TWO
questions.
Do not write on the question paper.

Question 1: 30 Marks

1a)   Describe the procedure of creating a Visual Basic application

(4 Marks)

b)   Describe the functions of the following objects used in Visual Basic programming:
　　　　i)   MsgBox
　　　　ii)   InputBox   **(4 Marks)**

c)   Explain the function of any **three** windows contained in the Visual Basic Integrated Development Environment (IDE)

(6 Marks)

d)   Rewrite the following code using select structure:

　　　　If x = 1 then choice = "A"
　　　　If x = 2 then choice = "B"
　　　　If x = 3 then choice = "C"   **(3 Marks)**

e)   List any **three** events   **(3 Marks)**

f)   Write code containing repetition structure that will display integers from 1 to 10 on same line on a picture box when a user clicks on a command button

(4 Marks)

g)   Explain the term 'sentinel data'   **(2 Marks)**

h)   Write a Visual Basic statement to declare an array to store names of 50 students

(2 Marks)

i)   State any **TWO** advantages of using procedures and functions in a programs.

(2 Marks)

Question 2
a)   Develop Visual Basic program to output the following:

　　　　ii)   1

```
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
```
(8 Marks)

b)   Briefly explain the following programming paradigms:

        i)   Object oriented programming
        ii)   Procedural programming
        iii)   Event driven programming

(6 Marks)

c)   Describe any three types of errors that occur in Visual Basic code

(6 Marks)

Question 3
a)   A class of 20 students sat for an exam. Write a Visual Basic procedure that will read the marks of the 20 students and out put the number of students who passed the exam and the number who failed. The pass mark is is 40%. Attach the code to a command button

(10 Marks)

b)   List any 8 data types used in Visual Basic

(4 Marks)

c)   Explain each of the following operators with example:
        i)   Modulus
        ii)   Boolean
        iii) Integer Division

(6 Marks)

Question 4
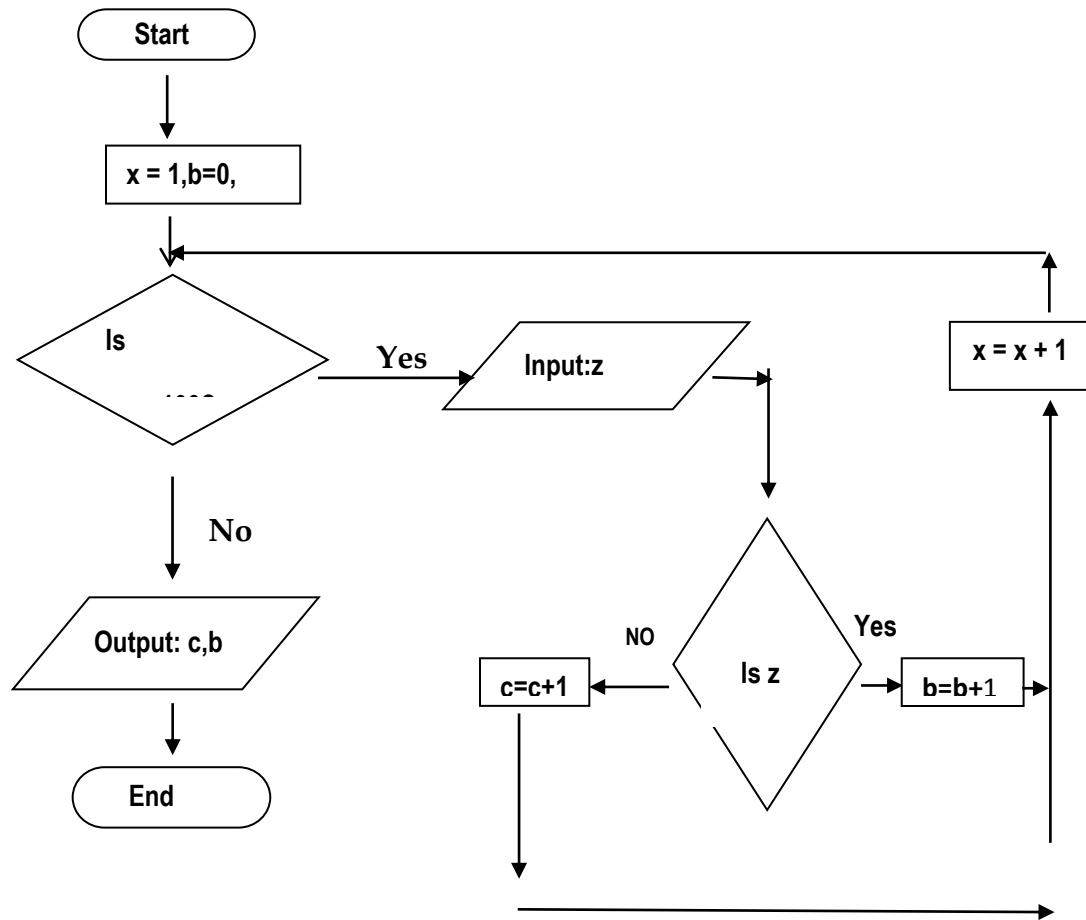a)   State Visual Basic rules for naming variables

(4 Marks)

b)   With an aid of suitable example explain what is meant by the term 'Event Procedure'

(4 Marks)

c)   Explain the term array as used in Visual Basic programming

(2 Marks)

d)

For the flow chart shown above:

    i)   State its purpose   **(3 Marks)**

    ii)   Develop Visual Basic code   **(7 Marks)**

Question 5

a)   Explain the following concepts as applied to Visual Basic:

    i)   Event

    ii)   Method

                                                            (4 Marks)

b)   Describe the following properties of objects as used in Visual basic:

i)   Caption

ii)   Visible

iii)   Enabled

iv)   Text   **(8 Marks)**

c)   Explain each of the following operators as used in Visual Basic with example:

    i.   Assignment

    ii.   Comparison   **(4 Marks)**

d)   List any four standard controls used to get users choice

                                            (4 Marks)