TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR BACHELOR OF SCIENCE IN
INFORMATION TECHNOLOGY
(BSIT J12/FT)

BIT 2118: APPLICATION PROGRAMMING I

END OF SEMESTER EXAMINATION
SERIES: APRIL 2013
TIME: 2 HOURS

<u>**Instructions to Candidates:**</u>
You should have the following for this examination
  - *Answer Booklet*
This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **TWO** printed pages

Question One (Compulsory)

a) Describe any **FOUR** IDE features of visual basic. **(8 marks)**

b) Write a program to enter the year, check then display whether it is a leap year or not. **(4 marks)**

c) Explain the message box in brief **(4 marks)**

d) Discuss **THREE** types of variable data type in VB **(3 marks)**

e) Identify and correct the errors in the following code. **(4 marks)**
```
Dim val as integer = 0
Int ctr as integer = 0
Do while val <100
Val = val +5
If ctr> = 10
Exit DO
```

f) Write and explain a simple error exception syntax in VB   **(4 marks)**

g) Explain variables scope in VB   **(3 marks)**

Question Two

a) Define Array. Explain fixed and dynamic array with example.   **(4 marks)**

b) Explain the following VB function with examples:
      (i)   Cstring ()
      (ii)   Lcase ()
      (iii)   Val ()   **(6 marks)**

c) Write VB codes to connect to a database and save a record into a table.   **(10 marks)**

Question Three

a) Write the use of either function or procedure, write a VB program to implement a standard calculator (+, -, *, /)   **(8 marks)**

b) Explain the **THREE** IF statements   **(6 marks)**

c) With the use of an example, explain the concept of object and classes in VB.net.   **(6 marks)**

Question Four

a) Explain the following add.net objects.
      (i)   Connection
      (ii)   Data reader
      (iii)   Data adapter
      (iv)   Command   **(8 marks)**

b) VB is said to be event driven. Explain.   **(3 marks)**

c) Write an IF statement that reflects the following logic "If value of num is less than or equal to 5 and num is greater than -8, then display "hallow world" in a message box.   **(3 marks)**

d) Discuss the following: **(6 marks)**
      (i)   Property window
      (ii)   Loop structures
      (iii)   Break points

Question Five

a) Explain **THREE** VB loop structures giving a simple syntax for each.   **(10 marks)**

b) Write a VB program to output the following: **(10 marks)**

```
*
*     *
*     *     *
*     *     *     *
*     *     *     *     *
*     *     *     *     *     *
```