

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**YEAR II SEMESTER II EXAMINATION FOR THE DEGREE OF BACHELOR OF INFORMATION**

**BIT 2118: APPLICATION PROGRAMMING I**

**DATE:DECEMBER 2015 TIME: 2 HOURS**

**INSRUCTIONS:** Answer question one and any other two questions.

QUESTION ONE (30 MARKS)

a. Consider the following fragment:

 Imports system

 Namespace OR. VBNetProg

 Public shared sub sayHello()

 Console. writeline )”Hello , world”)

 End sub

 End Class

 End Namespace.

Explain three identifiers used in the code fragments but declared elsewhere. (6 marks)

b. Describe the following fundamental VB.NET types

 i. Integer

 ii. Single

 iii. String

 iv. Date. (4 marks)

c. Declare a variable named “Z” to store integer values. Give an explanation.

 (4 marks)

d. Describe the syntax of the following control structures.

 i. If…..Then…..Else statement. (4 marks)

 ii. Select Case Statement. (4 marks)

 iii. For ….Next loop. (4 marks)

e. Write a declaration of an integer array that has three elements. Give an explanation.

 (4 marks)

QUESTION TWO (20 MARKS)

a. The programming process basically involves editing, compiling and executing a program. Write a VB.NET console application that displays “Hello World” when executed. Explain how a programmer would edit, compile and execute such a program. Using any text editor and the windows command line. Explain the code. (14 marks)

b. Discuss the three types of errors caused by a computer program regardless of the language in which the program is written. (6 marks)

QUESTION THREE (20 MARKS)

a. Design an interface that would require a user to enter marks scored for a given subject. This application is meant to determine the code obtained by a student on a message box upon the click of a button. (5 marks)

b. Write the VB.NET code that should be attached to the interface so as to display the obtained grade given the following grading system:

 Above 70 =”A”

 50-70=”B”

 less than 50=”C”

Give an explanation of the code. (15 marks)

QUESTION FOUR (20 MARKS)

Consider the following VB.NET program.

Protected Sub ReadFromAtextFile (cFile name as string)

Dim s AS StreamReader

Dim cline As String

Dim bDone As Boolean=False

Ibresults.Items.Clear()

S=New Streamreader (cFilename)

S=New Streamreader(cFilename)

Try

While Not bDone

cline=S. Readline()

If cline iv Nothing Then

bDone=True

Else

Call ibresults.Items.Add(cline)

End If

End While

S.Close ()

Catch.oEX as Exception

Call Msg Box (“Some error occurred”)

End Try

End Sub

Give a part by-part explanation of the code (20 marks)