



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

SMA 492: COMMERCIAL PROGRAMMING

DATE: 25/7/2019

TIME: 11.00-1.0 PM

INSTRUCTIONS

QUESTION ONE IS COMPULSORY.

ANSWER ANY OTHER TWO QUESTIONS.

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Give THREE general features of VB.NET programming language. (3 marks)
- b) Describe IDE stand. (2 marks)
- c) Mention FIVE various Data Types in VB.NET. (5 marks)
- d) Explain the difference between Exit() and End() and how do they are used. (4 marks)
- e) Describe and give an example in each case FOUR common types of operators used in
- f) Describe TRACE class in VB.Net. (3 marks)
- g) Write down a query to display student IDs with maximum marks in two subjects. (6 marks)
- h) Give THREE types of loops and control structures used in VB. NET. (3 marks)

QUESTION TWO (20 MARKS)

- a) Briefly explain what Delegate is in VB.NET. (2 marks)
- b) Explain THREE relational operators that can be used in VB. (3 marks)
- c) Write a simple program that utilizes The Select Case Statement. (4 marks)
- d) Describe atleast FOUR advantages of using VB.Net as a professional language. (8 marks)
- e) Write down the source code to display the picture in a button click event. (3 marks)

QUESTION THREE (20 MARKS)

- a) Describe the various basic parts that make up a VB.Net program. (6 marks)
- b) Mention the ways in which a function can return value in VB.NET. (4 marks)
- c) As a programmer in VB.NET is it possible to create a function that can accept a varying number of arguments in VB.NET. (2 marks)
- d) Explain the difference between DataSet and DataTable. (4 marks)
- e) The following example makes use of various types of variables in Visual Studio .NET. Give the output of the program when compiled and executed. (4 marks)

Module variablesNdatatypes

```
Sub Main()  
    Dim a As Short  
    Dim b As Short  
    Dim b As Short  
    a = 10  
    b = 10  
    c = a + b  
    Console.WriteLine("a = {0}, b = {1}, c = {2}", a, b, c)  
    Console.ReadLine()  
End Sub
```

End Module

QUESTION FOUR (20 MARKS)

- a) Describe An array. (2 marks)
- b) Give the syntax consideration and provide an example of how variables are declared in VB. NET. (4 marks)
- c) Differentiate between an Object and a Class as used in VB.NET and give an example in each case to illustrate the difference. (4 marks)
- d) Draw a flowchart for a program that will compute the average and the Product of three numbers (6 marks)
- e) Write VB.NET code to prompt a user to input his/her name and then the output will be shown as an example below:
Hello John! (4 marks)

QUESTION FIVE (20 MARKS)

- a) Describe what you understand by a programming language. (2 marks)
- b) Describe THREE types of controls in VB.NET. (6 marks)
- c) Write VB.NET code to declare a variable to store the age of a person and prints the output of the program. (8 marks)
- d) Differentiate between shared methods and shared variables. (4 marks)