



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2015/2016 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

SECOND SEMESTER EXAMINATION FOR DEGREE IN

BACHELOR OF SCIENCE IN MATHEMATICS AND COMPUTER SCIENCE

SCO 202: EVENT DRIVEN PROGRAMMING

Date: 5/8/2016

Time: 8:30 – 10:30 AM

INSTRUCTIONS:

Answer Question One and Any Other Two Questions

QUESTION ONE (COMPULSORY)

- a) Define the following terms (6 marks)
 - i) Programming language
 - ii) Algorithm
 - iii) Program
- b) Explain two types of programming errors (4 marks)
- c) Describe Four advantages of High level language (4 marks)
- d) Differentiate the following terms
 - i) pseudo code and flowchart (4 marks)
 - ii) translators and compilers (4 marks)
- e) Explain TWO major types of program testing (4 marks)

- f) Identify the data types that can be assigned to the following variables (4 marks)
- i) Marks
 - ii) Gender
 - iii) Date
 - iv) Kenya Shillings

QUESTION TWO

- a) Differentiate between the following terms as used in visual basic (2 marks)
- (i) Property and Method (2 marks)
 - (ii) IDE and Form designer (2 marks)
 - (iii) Variable and constant (2 marks)
 - (iv) Program and Project (2 marks)
- b) Write codes to calculate the area of a rectangle when the length & width are passed to the function. The function returns area of the rectangle (5 marks)
- c) Sketch the GUI (2 marks)
- d) Write a short program that displays “Event Driven Programming is Non-Procedural Programming Language” 50 times on the form when click a command button. (5 marks)

QUESTION THREE

- a) Consider the Visual Basic program below & answer the questions that follow
- ```
Private sub cmdCompute_Click ()
 Dim x As Integer
 X=1
 Do While x<=10
 If x<6 And x>2
 Print x*3
 X=x+1
 Loop
 End Sub
```
- (i) Write down the output produced by this program (5 marks)
  - (ii) Rewrite the same program using Do Until...Loop instead of Do While.... Loop (5 marks)
- b) Write a Visual Basic program to calculate the area of a semi-circle. Use InputBox () function to enter the value of the radius. Declare Pi as a constant. (5 marks)
- c) Explain TWO ways of writing a comment in Visual Basic (5 marks)

#### QUESTION FOUR

- a) Explain the difference between general procedures and event procedures (3 marks)
- b) Describe two ways in which a message box may be used in VB program (4 marks)
- c) Explain briefly the TWO main types of constants found in Visual Basic (3 marks)
- d) Discuss any five different types of files that are in cooperated in a VB project. (5 marks)
- e) Discuss the use of the following functions in VB
  - (i) Format
  - (ii) Val
  - (iii) Ucase
  - (iv) Str
  - (v) Len (5 marks)

#### QUESTION FIVE

- a) List the steps you would follow to set a start-up form for an application (2 marks)
- b) An application has five forms each of these forms has three text boxes that require the user of the application to key in data. Assuming that these controls have the same names, write a simple custom subroutine called clear that you can call to place this subroutine supporting your answer with a reason (6 marks)
- c) Differentiate between SDI and MDI as used in VB (2 marks)
- d) Discuss three features that the visual basic code editor comes with that assist in program debugging (6 marks)
- e) List the steps you would follow to convert your visual basic project into an executable file (.EXE) (4 marks)