



MACHAKOS UNIVERSITY

University Examinations for 2017/2018

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

**SECOND YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE
(INFORMATION TECHNOLOGY)**

SCS 202: EVENT DRIVEN PROGRAMMING

DATE: 5/12/2017

TIME: 11.00-1.00 PM

INSTRUCTIONS: Answer Question 1 (Compulsory) and any other 2 Questions

QUESTION ONE (30 MARKS)

- a) Distinguish between the following terminology.
 - i. Constant and Enumeration (2 marks)
 - ii. Modifier and Directive (2 marks)
- b) Describe the three major categories of programming languages. (3 marks)
- c) Outline some of the components of the .Net frameworks. (5 marks)
- d) Describe the logical units of a personal computing machine. (6 marks)
- e) Briefly describe the three forms of control needed to implement a program. (6 marks)
- f) Write a simple program in VB .Net language that performs four arithmetic operations on two operands and displays the answers. (6 marks)

QUESTION TWO (20 MARKS)

- a) Briefly explain the difference between the do while, the while and for repetition statements using a relevant example. (5 marks)
- b) Write simple programs in VB.Net language that demonstrates the following statements.

- i. The while loop (5 marks)
- ii. The do while loop (5 marks)
- iii. The for...next loop (5 marks)

QUESTION THREE (20 MARKS)

- a) Explain the selection statements using flow diagrams and their respective syntax. (12 marks)
- b) Write a program in VB.Net to demonstrate the switch case statement. (8 marks)

QUESTION FOUR (20 MARKS)

- a) Differentiate between recursive functions and iterative functions. (4 marks)
- b) Write a program in VB.Net that initializes an array with 10 elements and displays the elements. (8 marks)
- c) Write a program in VB.Net that demonstrates the creation of a two-dimensional array and displays the elements. (8 marks)

QUESTION FIVE (20 MARKS)

- a) Distinguish between pseudocode and algorithm. (4 marks)
- b) Write a program in VB.Net that calculates factorial for a given number using a recursive function. (8 marks)
- c) Write a program in VB.Net that demonstrates the concept of exception handling. (8 marks)