



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY

UNIVERSITY ORDINARY EXAMINATION

2020/2021 ACADEMIC YEAR

**SECOND YEAR FIRST SEMESTER EXAMINATION FOR, DIPLOMA
IN INFORMATION TECHNOLOGY**

UNIT CODE: SCS: 053

UNIT TITLE: VISUAL PROGRAMMING

DURATION: 2 HOURS

Instructions to candidates:

1. Answer question One and Any Other Two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

- (a) Briefly explain the following visual basic IDE components (5 Marks)
- (i) Text Box
 - (ii) Tool Box
 - (iii) Project explorer
 - (iv) Combo Box
 - (v) Radio button
- (b) Differentiate between call by value and call by reference as used in visual basic functions. (4 marks)
- (c) Highlight at least **four** user events that a user can perform on a visual basic interface. (4 marks)
- (d) Discuss **three** logical operators used in visual basic. (6 marks)
- (e) Illustrate the syntax of declaring functions in visual basic. (6 marks)
- (f) Write a visual basic console application to find the area of a rectangle. (5 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- (a) Declare the following variables
- (i) Student- name , registration-number, address as global variable. (6 marks)
 - (ii) Marks, email, As local variables. (4 marks)
- (b) Write a visual basic while loop to output values between 0-10. (6 marks)
- (c) Outline four rules that one must adhere to when creating graphical user interface in visual basic. (4 marks)

QUESTION THREE (20 MARKS)

- (a) Using flowchart differentiate between for ...next loop and Do... while loop. (6 marks)
- (b) Declare a structure known as employee with the following values: first- name, Last-name, address (6 marks)
- (c) Discuss **four** files input/output operations that are present in visual basic. (8 marks)

QUESTION FOUR (20 MARKS)

- a) Databases have become an integral part of nowadays applications. Enumerate any three data manipulation operations that can be conducted on the data in the database by VB applications. (6 marks)
- b) The diagram below show a GUI interface with a button label “next page” once the user clicks on this button the program is supposed to move to a form known as Form2 . Write code segment to execute the action once the bottom is clicked. (4 marks)



- (c) Write a visual basic program to declare an array with file values and print the values.(6 marks)
- (d) Using a code segment illustrate how comments are used in visual programming. Outline why comments are important in visual programming. (4 marks)