

(University of Choice)

MASINDE MULIRO UNIVERSITY OF

SCIENCE AND TECHNOLOGY

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MAIN EXAM

2021/2022 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER EXAMINATION

FOR THE FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY

COURSE CODE: ITC 017

COURSE TITLE: VISUAL PROGRAMMING

DATE: 28/04/2022

TIME: 12:00 – 1:30PM

INSTRUCTIONS TO CANDIDATES

- **Answer Questions ONE and ANY OTHER TWO.**

TIME: 1 Hour 30 Mins

MMUST observes ZERO tolerance to examination cheating

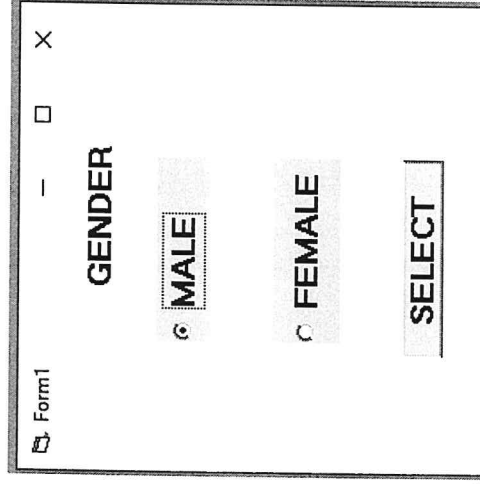
Paper Consists of 4 Printed Pages. Please Turn Over ▲

a) Question #1 General [24 marks]

- b) Explain the following controls in VB (5mks)
- i. Label
 - ii. Textbox
 - iii. Timer
 - iv. Option button
 - v. List box
- c) Explain the term VISUAL BASIC (4mks)
- d) List any five features of visual basic (5mks)
- e) Define a comment as used in VB. Explain two ways which comments are written (3mks)
- f) A check box can assume three status, Checked, Unchecked and Grayed. What are the values used for each status (3mks)
- g) Explain what the following statement does in VB (1mk)
- i. List4.AddItem "Kennedy" (1mk)
 - ii. Label1.Caption ="Yellow Text" (1mk)
 - iii. Text1.BackColor=vbMagenta (1mk)
 - iv. Dim Age as integer (1mk)

Question #2 [18 marks]

- a. Explain the importance of comments in VB programming (3mk)
- b. Distinguish between combo box and a list box and name any THREE methods that is common between them (5mks)
- c. The following is a simple application uses option buttons



Write the code for the application so that when the

command button is clicked a message box appears that indicates your choice
(4mks)

d. Using a for loop, write an event procedure that prints even numbers in a picture box (6mks)

Question #3 [18 marks]

- Explain the important features of Integrated Development Environment (IDE) of Visual Basic. (5mks)
- Consider the following calculator

The image shows a screenshot of a Visual Basic form titled "Form1". The form has a standard Windows window appearance with a title bar containing a minimize button, a maximize button, and a close button. The form contains three text boxes arranged vertically. The first text box is labeled "NUM 1" and is connected by a line to the label "Text1". The second text box is labeled "NUM 2" and is connected by a line to the label "Text2". The third text box is labeled "ANSWER" and is connected by a line to the label "Text3". Below the text boxes are three buttons arranged horizontally: "ADD", "CLEAR", and "EXIT".

- Write the event procedure for the ADD so that it adds a number in text1 and text2 and inserts the answer in text3 (3mks)
- Write the event procedure for the CLEAR command so that it clears text from text1, text2 and text3 (3mks)
- Write the event procedure for the ADD command so that it requires confirmation before closing (2mks)
- Explain how you lock text3 so that one cannot type in it (2mks)
- State any THREE rules of naming a variable in Visual Basic. (3mks)

Question #4 [18 marks]

- Explain variable as used in VB (2mks)
- Write an event procedure using a for next loop to print numbers on a picture box (picture1) from 30 to 0 (4mks)
- What is a comment in VB (2mks)

- d. Explain using examples how comments are written in vb (4mks)
- e. Given a label1, write an event procedure that performs the following
 - i. Changes the caption of the label1 to your first name (2mks)
 - ii. Changes the fore color of the label1 to blue (2mks)
 - iii. Sets the background color of the label1 to yellow (2mks)

Question #5 [18 marks]

- a) Consider the form below

The image shows a Windows form window titled "Form1". It contains four text boxes arranged vertically, each with a label to its left: "Fisrt Name" (labeled "Text1"), "Last Name" (labeled "Text2"), "Reg No" (labeled "Text3"), and "Date of Birth" (labeled "Text4"). Below the text boxes, there are three buttons: "SAVE", "<< Adodc1", and ">>".

- i. Write an event procedure for the SAVE command to save the details of the form to the database (7mks)
- ii. Explain how to change the backcolor of the form to green (3mks)
- iii. Write a code that sets focus in the first textbox (2mks)
- iv. Write an event procedure to test if text1 is black and returns a message (3mks)
- v. Write another event procedure that tests if text1 contents are alphabets only and displays a message (3mks)