CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

CHUKA AND THARAKA CAMPUSES

FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE AWARD OF CERTIFICATE   IN COMPUTER SCIENCE

COSC 00107: APPLICATIONS PROGRAMMING

STREAMS: CERT COMP SCI (Y1S2)   **TIME: 2 HOURS**

DAY/DATE: TUESDAY 04/12/2018   **8.30 A.M. – 10.30 A.M.**

INSTRUCTIONS:

- **Answer question one and any other two from section B**

- **Do not write on this paper**

SECTION A {compulsory}

QUESTION ONE (30MARKS)

a) State the function of each of the following controls in a visual basic program
   i. Pointer   (1mark)
   ii. Frame   (1mark)
   iii. Ole   (1mark)
   iv. Combo box   (1mark)

b) Outline two advantages of a visual basic programming language.   (2 marks)
c) Define the term data bound control form as used in visual basic.   (2 marks)
d) Mary has developed a payroll system for ufunzi organization,explain three benefits of testing the system before delivering it to the owners.   (6 marks)
e) Anita would like to use procedures to develop an application in visual basic.outline four benefits she would achieve from this.   (4 marks)
f) Write a visual Basic program that would accept a number through a text box.The program should then compute the square and the squareroot of the number and display the output in a label with the following description.

"The square of "n**umbe**r " is "**square** " and its squareroot is "**squareroot**".

Where the **number,square** and **squareroot** are the values derived from the code.Attach the code to a command button. (6 marks)

g) Identify a data type appropriate to store each of the data itms in visual basic program
    i.   Gender where a true or false values are used. (1 mark**)**
    ii.   The distance between two towns in kilometre rounded to 1 decimal place.
        (1 mark**)**
h) Distinguish between module level variable and local variable as used in visual basic program. (4 marks)

SECTION B: ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO (20 MARKS)
    a) The table below shows a grading system used by a primary school to analyse students internal examination results .use it to answer the question that follows.

Average	Grade
75-100	A
65-74	B
55-64	C
45-54	D
Less than 45	F

Write a visual Basic program that accepts five values through the use of inputbox function .the program shoild then determine the average and its appropriate grade .The average and grade should be displayed on a form.use if….else if…else statement. (7 marks)

Outline two properties that must be set on a textbox in order to manipulate data in a database when programming in visual basic. (2 marks)

Explain two disadvantages of using data control bounds in visual basic programming.(4 marks)

    b) Outline each of the following events of a command button as used in visual programming
    i.   MouseHover   **(**1 mark)
    ii.   KeyPress   **(**1 mark)
    iii.   MouseDown   (1 mark)
    c) Distinguish between *Visual programming* and *object-oriented programming*
    (4 marks)

QUESTION THREE (20 MARKS).
    a) With the aid of an example ,distinguish between dynamic array and static array as used in visual programing language. (4 marks)

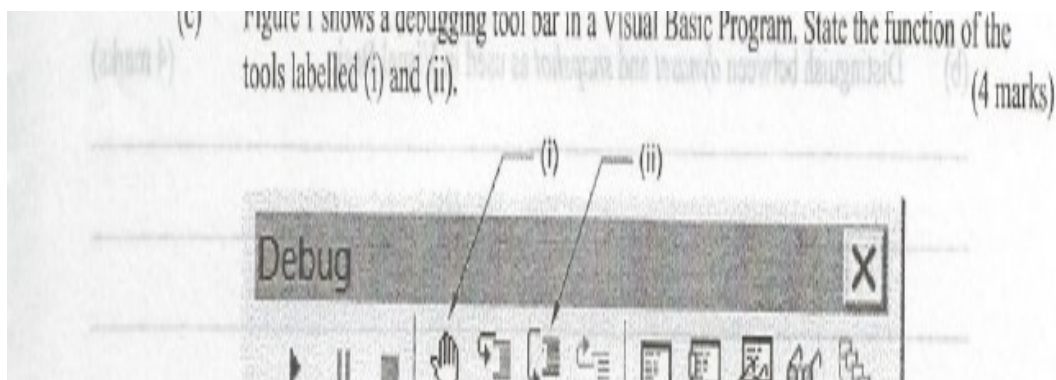b) Explain the function of each of the following types of procedures in Visual Basic.

(4 marks)

    i. Function procedure
    ii. Event procedure.

c) Explain the term event driven programming languages   (2 marks)
d) Distinguish between a general procedure and an event procedure as used in visual programming.givin synthax in each.   (6 marks)
e) The figure below shows a debbugging tool bar in visual Basic Program .State the function of the tools labelled (i) and (ii)   (4 marks)

QUESTION FOUR (20 MARKS)

a) Explain the function of each of the following visual basic programming tools
    i.   Menu bar   (2 marks)
    ii.   Toolbox   (2 marks)
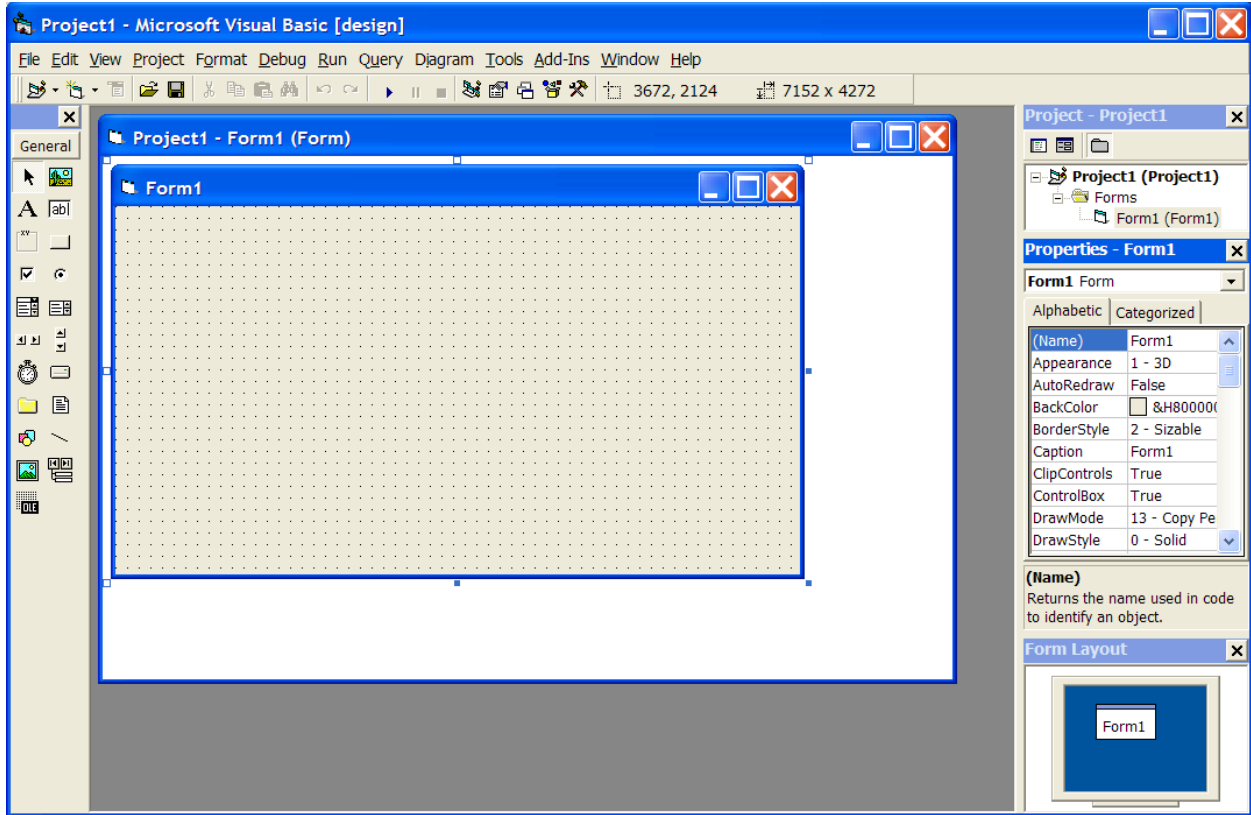   **iii.**   Context menu   (2 marks).
b) Write a Visual Basic program that allows the user to specify two numbers and then adds, subtracts, or multiplies them when the user clicks on the appropriate command button. Note: The output should give the type of arithmetic performed and the result. (9 marks)

c) Write Visual basic code that displays the text "Hello World" on a form .   (5 marks)

QUESTION FIVE (20 MARKS)

a) Identify each of the following parts of a Visual Basic Screen.   (8 marks)

A

B

C

D

E

F

G

H

b) Assuming that the company you work for has asked you to identify a programming software to develop a payroll system.state **three** likely reasons that would lead you to choose visual basic programming language. (3 marks)

c) Under what circumstance would each of following errors occur in visual basic programming
  i. Syntax errors   (2 marks)
  ii. Ru-time errors   (2 marks)
  iii. Logic errors   (2 marks)

d) Distinguish between Do…..while and Do…..until loop as used in visual basic programming. (3 marks)