"Investing in Africa's Future"
CHANS

COURSE TITLE: CIS202– Introduction to Programming

1st SEMESTER: **FINAL EXAMINATION 2 2022 April**

LECTURER: **MR J.CHINZVENDE**

TIME: **3 HOURS**

INSTRUCTIONS

Answer questions instructed in each section

Start **each** question on a new page.

The marks allocated to **each** question are shown at the end of the section.

Answer all questions in Section A and Chose TWO in section D

Credit will be awarded for logical, systematic and neat presentations.

Section A (Answer all questions 40 marks)

Question One

Define the following terms as they are used in Programming

a. Debug
b. Compiler

c. Interpreter

d. Inheritance

e. Encapsulation   [10]

Question Two

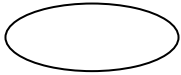Complete the following table on Operators and their meaning?

Operator	Meaning
…………………	Equal to
>	,,,
<	,,,
>=	,,,
<=	,,,

[10]

Question Three
Declare the following variables in vb.net ?

a. Date of birth
b. Student mark

c. Physical Address

d. Status on or off

e. Cost of Books   [10]

Question four

A flowchart consists of special geometric symbols connected by arrows. Fill and
     complete the table below

Symbol	Name	Meaning
		Used to connect symbols and indicate the flow of logic.
⬭		
	Decision	
		Used for processing
		Used to join different flowlines

                                                                   [10]

SECTION B (Answer any three questions 60 marks)

Question five

Tatenda's fees are charged per credit hours. She wants to design a Program that
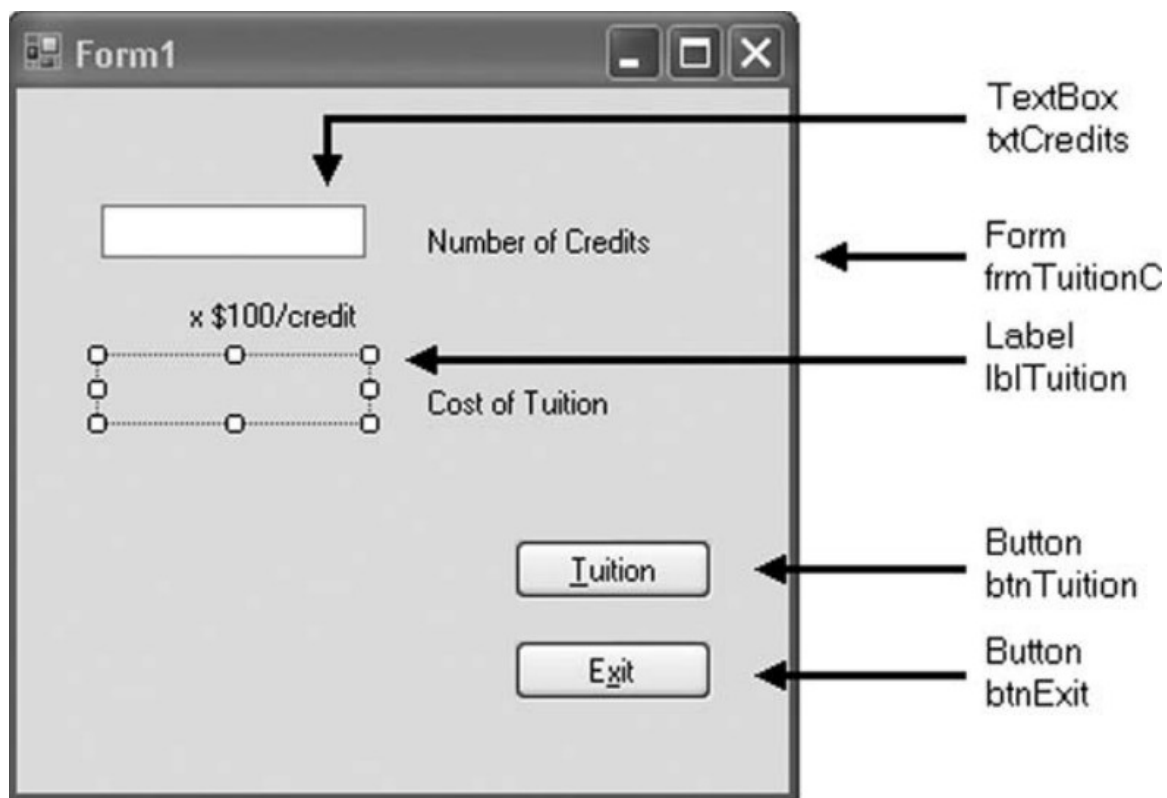 inputs credit hours and output the fees

   a. Draw a Flow Chart to show the process
   b. Design an algorithm to solve this problem

c. Design and draw the user interface to perform the process.

d. Set the properties and write the code for the process   [20]

Question six
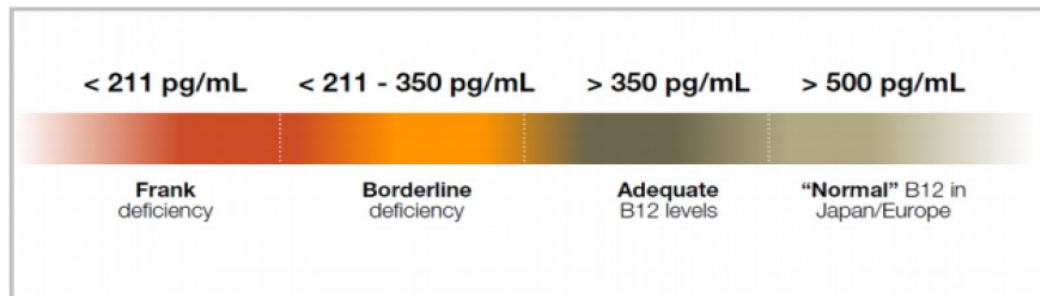
Given the following diagram

Tuition Calculator Form

a. Design a flow chart to show the process
b. Write code under the btnTuition to computer to calculate the tuition
c. Validate the code to ensure that only numbers are entered in the text box txtCredits.
d. Enter error handling technique to trap errors in the code   [20]

Question Seven

Vitamin B12 is a nutrient that helps keep your body's blood and nerve cells healthy and helps make DNA, the genetic material in all of your cells. Vitamin B12 also helps prevent megaloblastic anemia, a blood condition that makes people tired and weak.

Write a program to ask the user to enter their Vitamin B12 and display messages as shown by the scale below. Your program should include validation for correct data entry and error handling

[20]

Question eight

a. What will be the output of the following code when it is executed?

```
Dim age As Integer = 42
Select Case age

Case Is >= 0
    txtBox.Text = "Child"
    Case Is >= 13
    txtBox.Text = "Teenager"
    Case Is >= 21
    txtBox.Text = "Young Adult"
    Case Is >= 40
    txtBox.Text = "Middle Age" Case Is >= 65
    txtBox.Text = "Old Person"
    Case Else
    txtBox.Text = "Not Human"
End Select
```

b. Write the same code using the IF then ELSE structure including validation and error handling   [20]

End