CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF CERTIFICATE IN COMPUTER SCIENCE

COSC 00107: APPLICATION PROGRAMMING

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

DAY/DATE: MONDAY 12/07/2021   **8.30 A.M. – 10.30 P.M.**

INSTRUCTIONS:
- Answer question **ONE** and **TWO** other questions
- Do not write anything on the question paper
- This is a **closed book exam**, No reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.
- Marks are awarded for clear and concise answers.

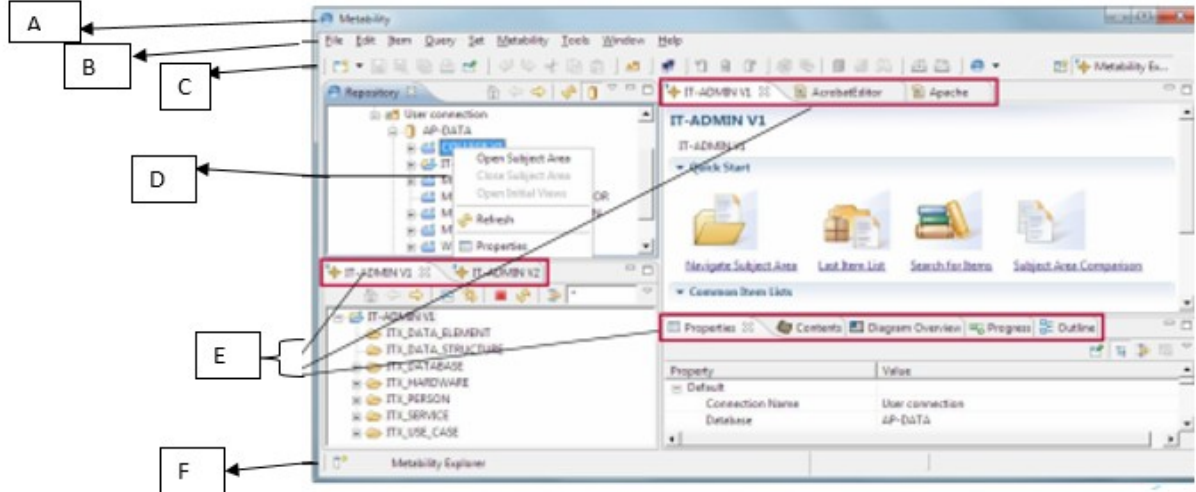**SECTION A (Answer ALL questions in this section)**

QUESTION ONE (30 Marks)

a) State the function of each of the following widgets in a visual basic program (8 marks)
   - I.   Check box
   - II. Textbox
   - III. List box
   - IV. Combo box

b) Outline two advantages of a visual basic programming language.   (2 marks)

c) Define a user interface.   (2marks)

d) State any five difference between an GUI and a CLI   (5 marks)

e) Explain 4 elements found in graphical user interface   (4marks)

f) Name any three events in VB.NET   (3 marks)

g) Write Visual basic code that displays the text "Hello World" on a form   (6 marks)

SECTION B (Answer any TWO questions)

QUESTION TWO (20 Marks)

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

b) Under what circumstance would each of following errors occur in visual basic programming

     i.   Syntax errors   (2 marks)
     ii.   Run-time errors   (2 marks)
     iii.   Logic errors   (2 marks)

c) Write Visual basic code that displays the text "Hello World" on a form. (6 marks)

QUESTION THREE (20 Marks)

a) Explain the term event driven programming languages (2 marks)

b) The table below shows a grading system used by a Chuka university to analyze 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

c) Write a visual Basic program that accepts five values through the use of input box function .the program should then determine the average and its appropriate grade .The average and grade should be displayed on a form. Use if….else if…else statement. (8 marks)

d) Distinguish between Visual programming and object-oriented programming. (4 marks)

e) Outline each of the following events of a command button as used in visual programming.

(6marks)

    i.   MouseHover
   ii.   KeyPress
  iii.   MouseDown

QUESTION FOUR (20 Marks)

a) Explain the function of each of the following visual basic programming tools
        i. Menu bar   (2 marks)
        ii. Context menu   (2 marks)

b) Write Visual basic code that displays the text "my first code in VB.net" on a form.
                                                             (5 marks)

c) Identify any THREE variables in the Visual Basic code below: (6 marks)

```
Private Sub cmdCompute_Click ()
picResults.Cls speed = 50
timeElapsed = 14
distance = speed * timeElapsed
picResults.Print distance
distance = 410
timeElapsed = distance / speed
picResults.PrinttimeElapsed
End Sub.
```

d) List and explain any 5 types of user interfaces   (5marks)

QUESTION FIVE (20 Marks)

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

b) Assuming that the company you work for has asked you to identify a programming software to develop a payroll system. State four likely reasons that would lead you to choose visual basic programming language.   (8 marks)

c) Name any three events in VB.NET   (3 marks)

d) Explain the function of the following windows that are found in VB.NET (6 marks)

      I.   Solution Explorer.

     II.   Properties window

    III.   Form Designer window