**FAITH MUTHEU THEOPHILUS**

**SCCF/02312/2023**

**DIPLOMA INFORMATION TECHNOLOGY**

**VISUAL PROGRAMMING CAT 2**

1. **Explain the meaning of event driven programming (4 marks)**

Event-driven programming is a programming paradigm in which the flow of the program is determined by user actions (such as mouse clicks, key presses), system-generated events, or messages from other programs. Instead of executing sequentially, event-driven programs respond to events as they occur. In Visual Basic (VB.NET), event handlers are used to execute specific code when an event occurs, such as clicking a button or closing a form.

b) **Identify any THREE variables in the Visual Basic code below:**

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.

(8 marks)

 **speed** → Assigned the value 50.

 **timeElapsed** → Assigned the value 14 initially and updated later.

 **distance** → Assigned the value of speed \* timeElapsed and later updated to 410.

1. **Describe any three events in VB.NET (9 marks)**

 **Click Event** → Occurs when a user clicks a control such as a button (Button1\_Click). It is commonly used to trigger actions like opening forms or calculations.

 **Load Event** → Occurs when a form is loaded into memory before being displayed. It is often used to initialize variables or set up the user interface (Form1\_Load).

 **KeyPress Event** → Occurs when a key is pressed while a control (such as a textbox) is in focus. It is used for input validation or handling user keystrokes (TextBox1\_KeyPress).

**a) Explain the function of the following windows that are found in VB.NET**

**i. Solution Explorer. (3 marks)**

 Displays the project structure, including forms, modules, and references.

 Helps in navigating and managing files in a VB.NET project.

 Allows adding, renaming, and organizing project components.

**ii. Properties window (3 marks)**

 Displays and allows modification of properties of a selected control or form.

 Properties like size, color, font, and name can be adjusted without coding.

 Provides an easy way to customize UI elements.

**iii. Form Designer window (3 marks)**

 Provides a graphical interface to design forms visually.

 Allows adding and positioning controls like buttons, textboxes, and labels.

 Generates the necessary code automatically for the designed UI.