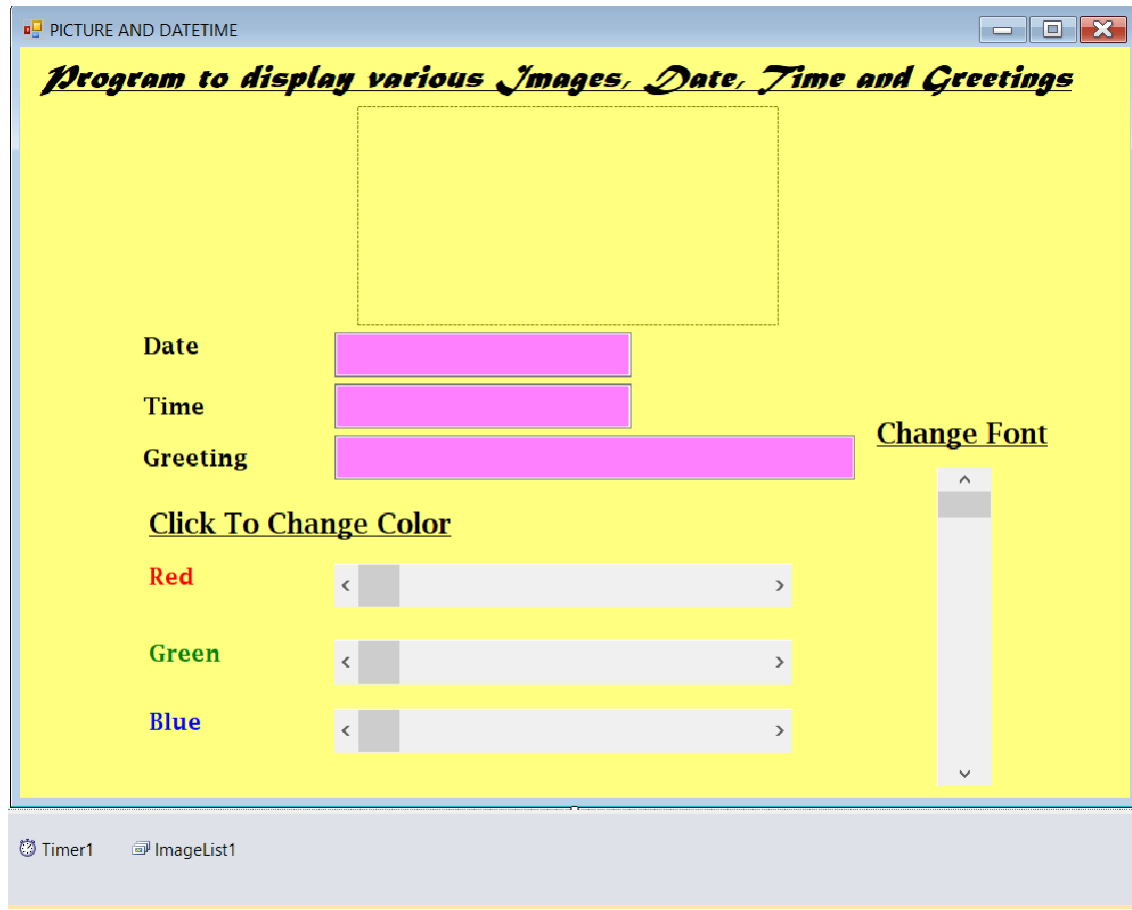5. Design a VB interface containing
    a. A picture box whose picture should be changed every 5 second (use 5 pictures).
    b. Textboxes to display date & time and day greeting based on time. Time has to be changed every second automatically.
    c. Use scrollbars to change font size and background color (RGB) of the textbox that shows greeting. [Use timer, scrollbars]

Design:

Source Code:
```
Public Class frmpictime

    Private Sub frmpictime_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        TextBox1.Text = Today
        TextBox2.Text =
        TimeOfDay Dim t As
        Integer
        t = Date.Now.ToString("HH")
        If (t >= 1 And t < 12) Then
        TextBox3.Text = "GOOD MORNING"
        ElseIf (t >= 12 And t < 16) Then
            TextBox3.Text = "GOOD AFTERNOON"
        ElseIf (t >= 16 And t < 20) Then
            TextBox3.Text = "GOOD EVENING"
        Else
            TextBox3.Text = "GOOD NIGHT"
```

End If

End If

```vb
        Timer1.Start()
    End Sub

    Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As System.EventArgs)
 Handles Timer1.Tick
        Static i As Integer = 0
        If i < ImageList1.Images.Count - 1 Then
            i = i + 1
        Else
            i = 0
        End If
        PictureBox1.Image = ImageList1.Images(i)
    End Sub

    Private Sub VScrollBar1_Scroll (ByVal sender As System.Object,
 ByVal e As System.Windows.Forms.ScrollEventArgs) Handles
 vsbfont.Scroll
TextBox3.Font = New Font(TextBox3.Font.FontFamily, VScrollBar1.Value)
End Sub

    Private Sub hsbred_Scroll(ByVal sender As System.Object, ByVal e As
System.Windows.Forms.ScrollEventArgs) Handles hsbred.Scroll
        TextBox3.BackColor = Color.FromArgb(Rnd() * 255, 0, 0)
    End Sub

    Private Sub hsbgreen_Scroll(ByVal sender As System.Object, ByVal e As
System.Windows.Forms.ScrollEventArgs) Handles hsbgreen.Scroll
        TextBox3.BackColor = Color.FromArgb(0, Rnd() * 255, 0)
    End Sub

    Private Sub hsbblue_Scroll(ByVal sender As System.Object, ByVal e As
System.Windows.Forms.ScrollEventArgs) Handles hsbblue.Scroll
        TextBox3.BackColor = Color.FromArgb(0, 0, Rnd() * 255)
    End Sub
End Class
```

Output:

Displaying date, time and greeting

Changing red color

Changing green color

Changing blue color

Changing font
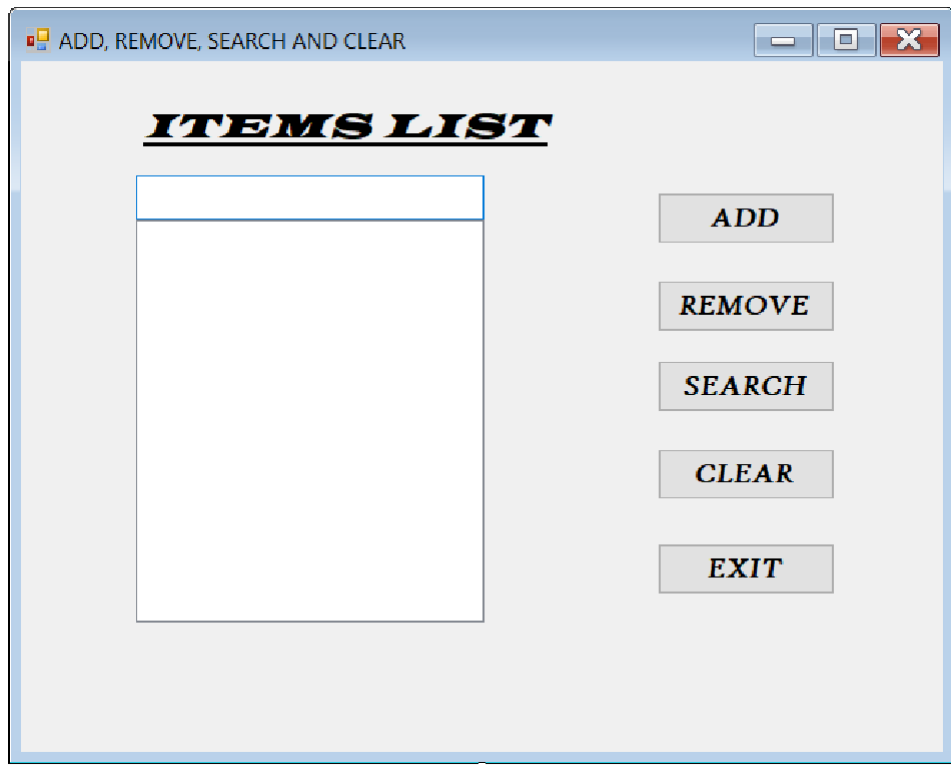
6. Design a VB interface to add, remove, search and clear the items in a combo box. The item name to be added, removed or searched can be accepted through input box. Use a general procedure to find the existence of item before deleting or while searching.

Design:

Source Code:

```vb
Public Class frmcombo

    Private Sub btnadd_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnadd.Click
        Dim i As String
        i = InputBox("Enter the item name")
        cmbitems.Items.Add(i)
    End Sub

    Private Sub btnremove_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnremove.Click
        Dim ritem, item As String
        Dim itemfound As Integer = 0
        ritem = InputBox("Enter the item to be removed")
        For Each item In cmbitems.Items
            If UCase(ritem) = UCase(item) Then
                itemfound = 1
                cmbitems.Items.Remove(ritem)
                Exit For
            End If
        Next
        If itemfound = 0 Then
            MsgBox("Item Not Found in the list")
        End If
```

```
        End Sub

    Private Sub btnsearch_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnsearch.Click
        Dim sitem, item As String
        Dim itemfound As Integer = 0
        sitem = InputBox("Enter item name to be searched")
        For Each item In cmbitems.Items
            If UCase(sitem) = UCase(item) Then
                itemfound = 1
                Exit For
            End If
        Next
        If itemfound = 1 Then
            MsgBox("Item Found in the list")
        Else
            MsgBox("Item Not Found in the list")
        End If
    End Sub

    Private Sub btnclear_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnclear.Click
        cmbitems.Items.Clear()
    End Sub

    Private Sub btnexit_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnexit.Click
        End
    End Sub
End Class
```

Output:
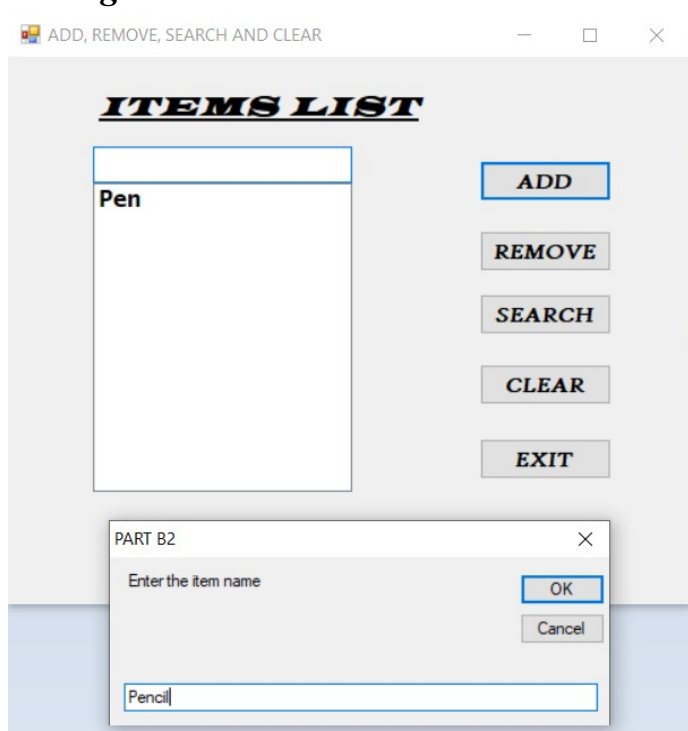
Adding the item   *Removing the item*
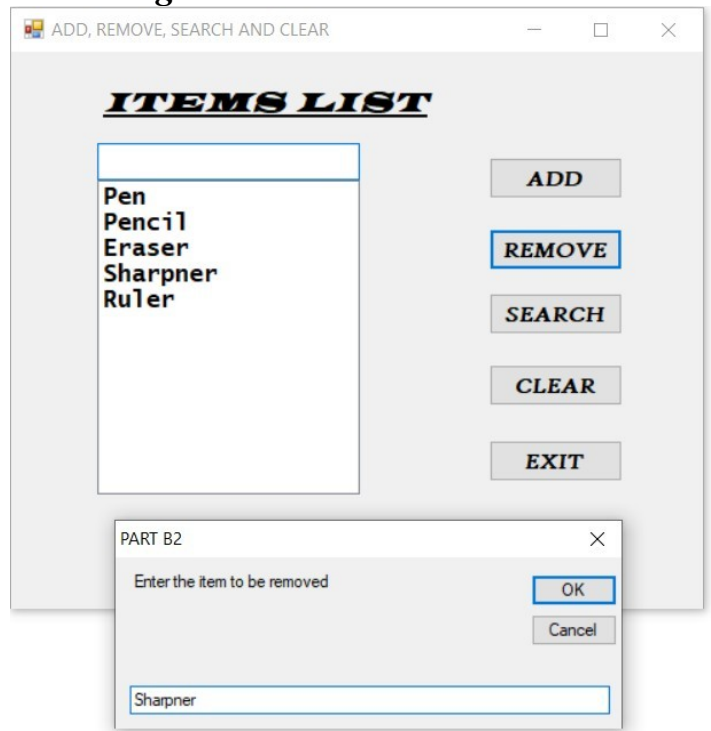
Searching the item
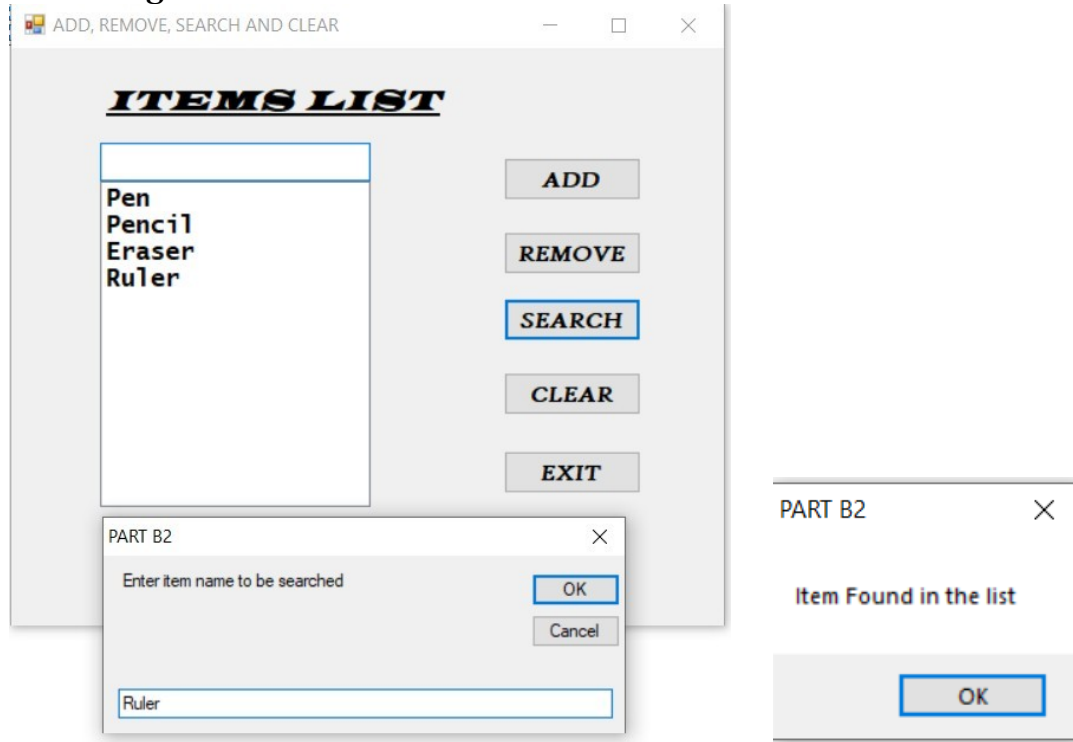
7. Design a simple calculator to perform addition, multiplication, subtraction and division.
   It should contain buttons for digits 0-9, clear, dot, =, +, –, *, /.
   Apply the validation rules to avoid entering dot more than once in a number and using – symbol between the digits.
   Symbol '–' can be used as operator as well as for negative numbers. Any operand can be negative.
   "Division by zero" to be displayed if divisor is 0.

Design:
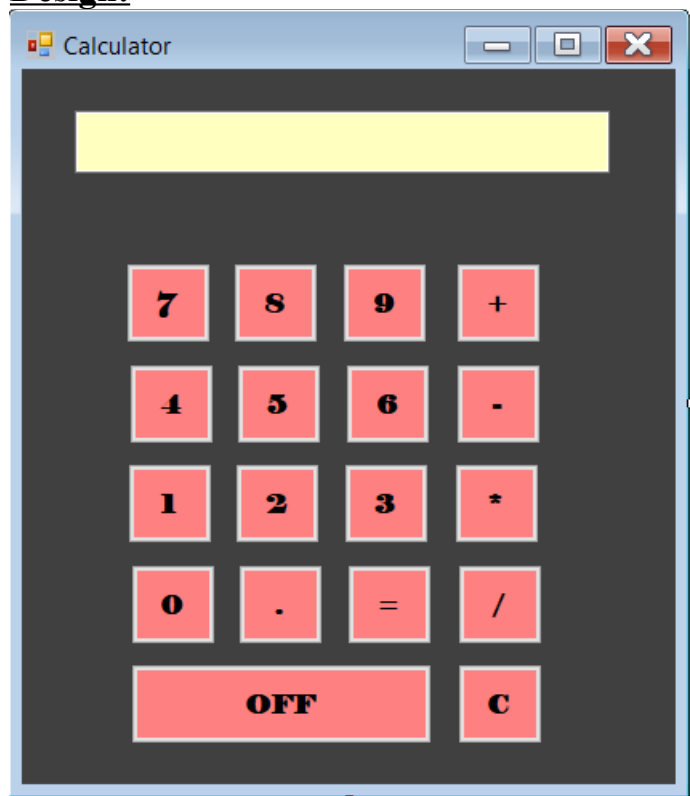
Source Code:

```vb
Public Class frmcal
    Dim fno, sno, res As Double
    Dim op As String
    Private Sub btnoff_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnoff.Click
        End
    End Sub

    Private Sub btn0_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn0.Click
        txtinput.Text = txtinput.Text & 0
    End Sub

    Private Sub btn1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn1.Click
        txtinput.Text = txtinput.Text & 1
    End Sub

    Private Sub btn2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn2.Click
        txtinput.Text = txtinput.Text & 2
    End Sub

    Private Sub btn3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn3.Click
        txtinput.Text = txtinput.Text & 3
    End Sub

    Private Sub btn4_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn4.Click
        txtinput.Text = txtinput.Text & 4
    End Sub

    Private Sub btn5_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn5.Click
        txtinput.Text = txtinput.Text & 5
    End Sub

    Private Sub btn6_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn6.Click
        txtinput.Text = txtinput.Text & 6
    End Sub

    Private Sub btn7_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btn7.Click
        txtinput.Text = txtinput.Text & 7
    End Sub
```

```vb
    Private Sub btn8_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btn8.Click
        txtinput.Text = txtinput.Text & 8
    End Sub

    Private Sub btn9_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btn9.Click
        txtinput.Text = txtinput.Text & 9
    End Sub

    Private Sub btndot_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btndot.Click
        If InStr(txtinput.Text, ".") Then
            txtinput.Text = txtinput.Text
        Else
            txtinput.Text = txtinput.Text & "."
        End If
    End Sub

    Private Sub btnplus_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnplus.Click
        fno = Val(txtinput.Text)
        txtinput.Text = Nothing
        op = "+"
    End Sub

    Private Sub btnminus_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnminus.Click
        fno = Val(txtinput.Text)
        txtinput.Text = Nothing
        op = "-"
    End Sub

    Private Sub btnmul_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnmul.Click
        fno = Val(txtinput.Text)
        txtinput.Text = Nothing
        op = "*"
    End Sub

    Private Sub btndiv_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btndiv.Click
        fno = Val(txtinput.Text)
        txtinput.Text = Nothing
        op = "/"
    End Sub

    Private Sub btnequal_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnequal.Click
        sno = Val(txtinput.Text)
```

```vb
        Select Case op
            Case "+"
                res = fno + sno
            Case "-"
                res = fno - sno
            Case "*"
                res = fno * sno
            Case "/"
                If fno = 0 Then
                    MsgBox("You cannot divide by zero")
                Else
                    res = fno / sno
                End If
        End Select
        txtinput.Text = res
    End Sub

    Private Sub btnc_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnc.Click
        txtinput.Text = Nothing
        txtinput.Focus()
    End Sub

    Private Sub frmcal_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        txtinput.Focus()
    End Sub
End Class
```
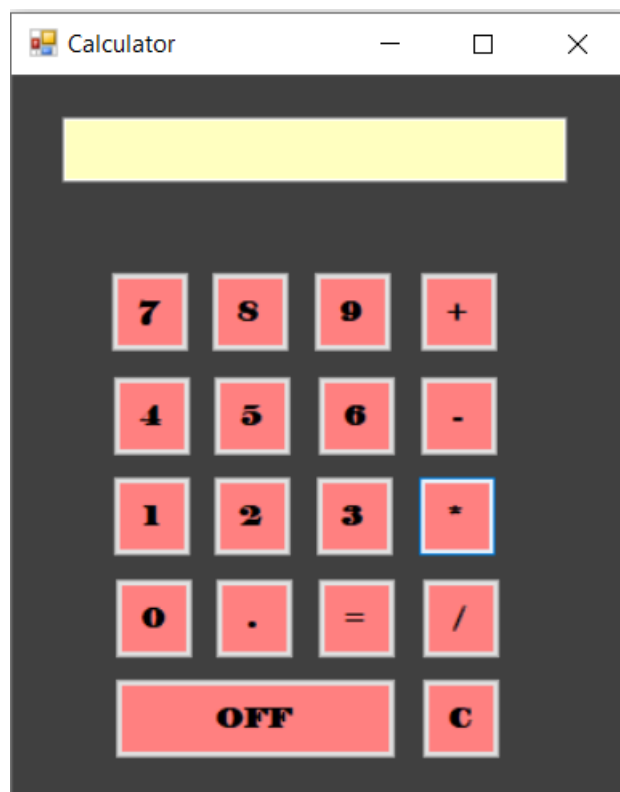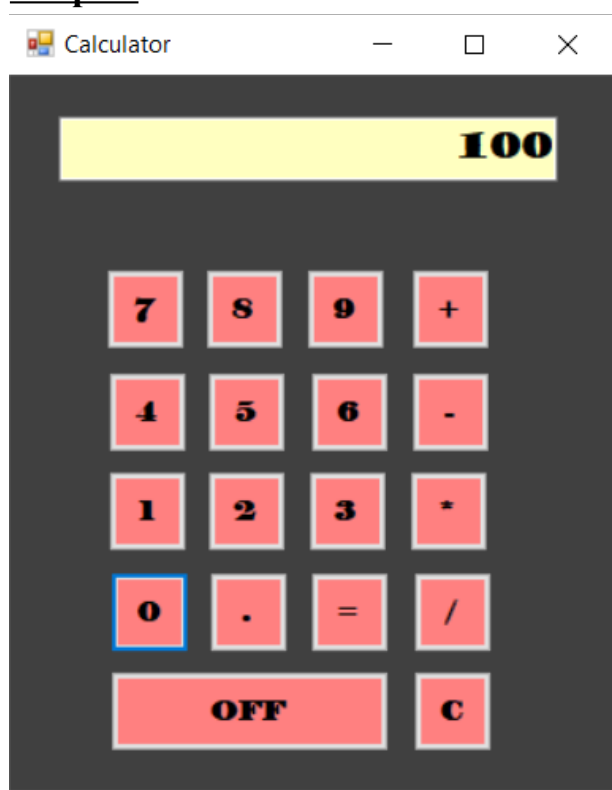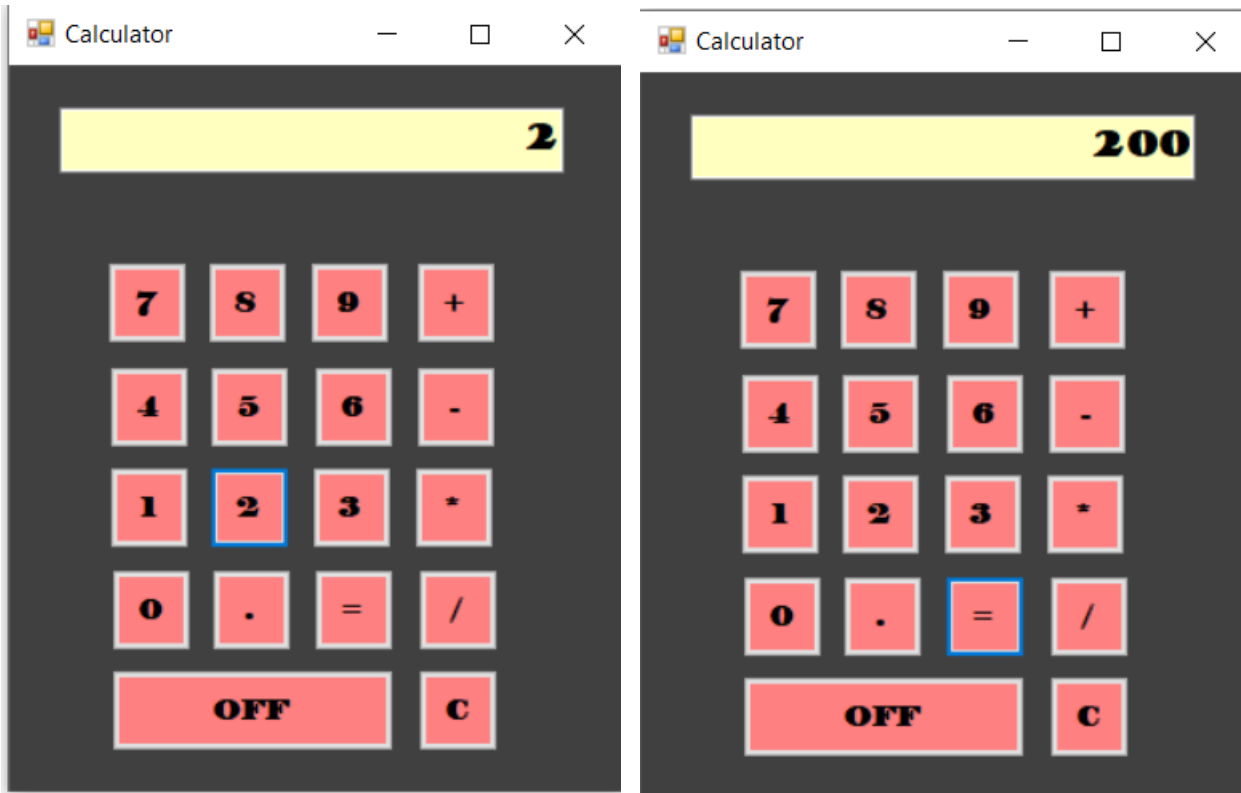
Output:

8. Design VB interface to conduct simple multiple choice Quiz with at least 5 questions. For selecting the answers, use combo box and radio buttons for few questions. One question can be answered only once. Show the total score through the message box whenever the user wishes to see his score in between the competition. Any question can be attempted randomly. Design can be as shown below.

Design:
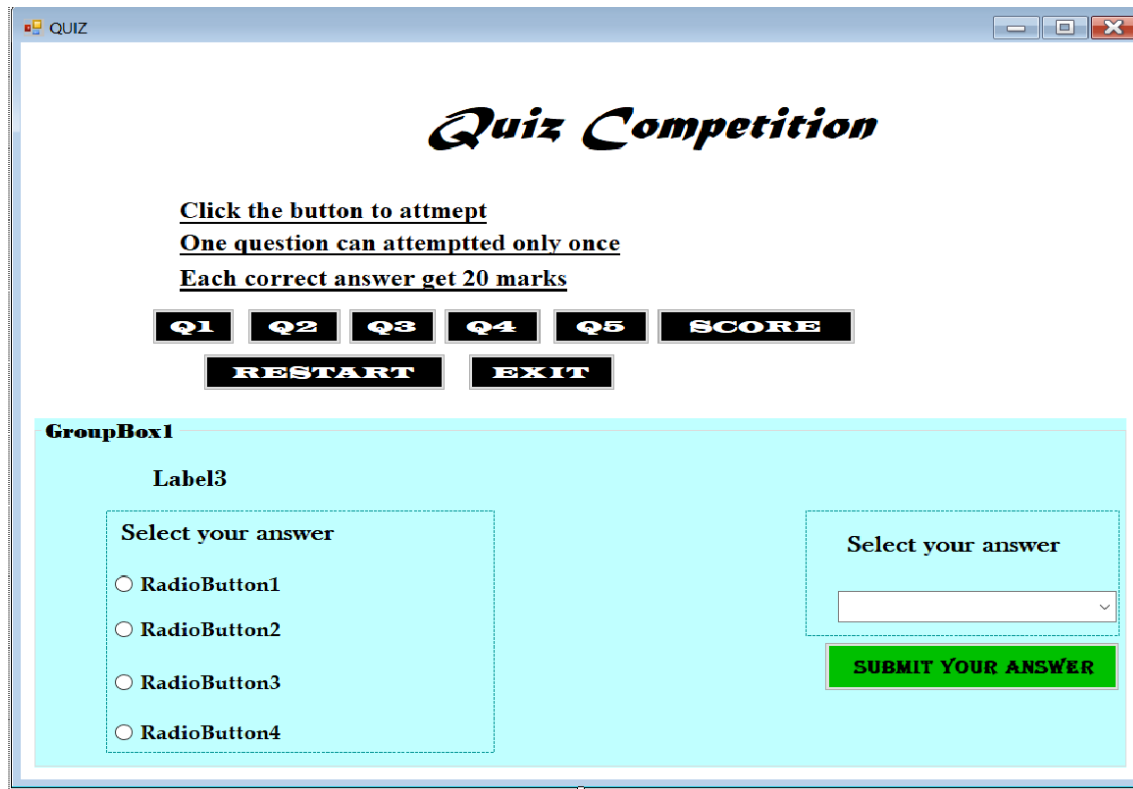
Source Code:

```vbnet
Public Class frnquiz
    Dim qno As Integer = 0
    Dim score As Integer = 0
    Private Sub frnquiz_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        gbtitle.Hide()
        Panel2.Hide()
        btnsubmit.Enabled = False
    End Sub

    Private Sub btnq1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnq1.Click
        qno = 1
        Call a1()
        Panel1.Show()
        Panel2.Hide()
        gbtitle.Text = "Q1"
        lblquestion.Text = "1. President of SDME Society"
        rbans1.Text = "Dr. Yahovarma"
        rbans2.Text = "Dr. Devaraj"
        rbans3.Text = "Dr. D. Veerendra Hegde"
        rbans4.Text = "Mr. Harshendra Hegde"
    End Sub

    Private Sub btnq2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnq2.Click
        qno = 2
        Call a1()
        Panel1.Show()
        Panel2.Hide()
        gbtitle.Text = "Q2"
        lblquestion.Text = "2. Principal of SDMCBM"
        rbans1.Text = "Mrs. Smitha"
        rbans2.Text = "Mrs. Aruna P. Kamath"
        rbans3.Text = "Mrs. Divya Uchil"
        rbans4.Text = "Mrs. Manju"
    End Sub

    Private Sub btnq3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnq3.Click
        qno = 3
        Panel1.Hide()
        Panel2.Show()
        Call a1()
        cmbanswer.Items.Clear()
        cmbanswer.Text = ""
        gbtitle.Text = "Q3"
        lblquestion.Text = "3. Dean of BCA department"
        cmbanswer.Items.Add("Mrs. Divya Uchil")
```

```vbnet
        cmbanswer.Items.Add("Mr. Arun F S")
        cmbanswer.Items.Add("Mrs. Shashikala")
        cmbanswer.Items.Add("Mrs. Deepa")
    End Sub

    Private Sub btnq4_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnq4.Click
        qno = 4
        Panel2.Hide()
        Panel1.Show()
        Call a1()
        gbtitle.Text = "Q4"
        lblquestion.Text = "4. Which instrument is used to measure blood pressure?"
        rbans1.Text = "Stethoscope"
        rbans2.Text = "Thermometer"
        rbans3.Text = "Voltmeter"
        rbans4.Text = "Spigmomanometer"
    End Sub

    Private Sub btnq5_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnq5.Click
        qno = 5
        Panel1.Hide()
        Panel2.Show()
        Call a1()
        cmbanswer.Text = ""
        cmbanswer.Items.Clear()
        gbtitle.Text = "Q5"
        lblquestion.Text = "5. 100*5=?"
        cmbanswer.Items.Add("1000")
        cmbanswer.Items.Add("500")
        cmbanswer.Items.Add("10000")
        cmbanswer.Items.Add("3000")
    End  Sub
    Private Sub a1()
        btnsubmit.Enabled = True
        gbtitle.Show()
    End Sub

    Private Sub btnsubmit_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnsubmit.Click
        btnsubmit.Enabled = False
        If qno = 1 Then
            btnq1.Enabled = False
            If rbans3.Checked Then
                score = score + 10
            End If
        End If
        If qno = 2 Then
            btnq2.Enabled = False
```

```vbnet
            If rbans2.Checked Then
                score = score + 10
            End If
        End If
        If qno = 3 Then
            btnq3.Enabled = False
            If cmbanswer.SelectedItem.ToString = "Mrs. Divya Uchil" Then
                score = score + 10
            End If
        End If
        If qno = 4 Then
            btnq4.Enabled = False
            If rbans4.Checked Then
                score = score + 10
            End If
        End If
        If qno = 5 Then
            btnq5.Enabled = False
            If cmbanswer.SelectedItem.ToString = "500" Then
                score = score + 10
            End If
        End If
    End Sub

    Private Sub btnscore_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnscore.Click
        MsgBox("Total Score=" & score)
    End Sub

    Private Sub btnexit_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnexit.Click
        End
    End Sub

    Private Sub btnrestart_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnrestart.Click
        btnq1.Enabled = True
        btnq2.Enabled = True
        btnq3.Enabled = True
        btnq4.Enabled = True
        btnq5.Enabled = True
        score = 0
        gbtitle.Hide()
    End Sub
End Class
```