**Computer Programming I**

**Essential Standard 7.00 Apply tools to obtain and validate user input.  
Indicator 7.03 Apply Built-in Math Functions (3%)**

**Indicator 7.04 Apply Built-in String Functions (3%)**

1. Define:

* Class
* Members
* Object

1. How does an object access a member of its class?
2. What does the Length property do?
3. Complete the code to find the length of the string strAnimal.  
    intLength =
4. What does the Chars property do?
5. Given a string called strWord, complete the code to find each of the following.
   1. The first letter   
       chrLetter =
   2. The last letter   
       chrLastLetter =
   3. The middle letter   
       chrMidLetter =
6. Define each String class function. (What does it do? What is the basic syntax?)
   1. The Compare() Function
   2. The Concat() Function
   3. The Equals() Function
   4. The IndexOf() Function
   5. The Insert() Function
   6. The Remove() Function
   7. The Replace() Function
   8. The ToLower() Function
   9. The ToUpper() Function
   10. The Trim() Function
   11. The TrimEnd() Function
   12. The TrimStart() Function
7. What is the output of the following code?

Dim strA As String = "Peanut"

Dim strB As String = "Butter"

If String.Compare(strA, strB) = 0 Then

lblAnswer.Text = strA & " is equal to " & strB

ElseIf String.Compare(strA, strB) < 0 Then

lblAnswer.Text = strA & " comes before " & strB

ElseIf String.Compare(strA, strB) > 0 Then

lblAnswer.Text = strA & " comes after " & strB

End If

1. What is the output of the following code?  
     
   Dim strA As String = "Programming"  
   Dim strB As String = " Rocks"  
   Dim strNew As String  
   strNew = String.Concat(strA, strB)  
   lblAnswer.Text = strNew
2. What is the output of the following code?  
     
    Dim strA As String = "Apple"

Dim strB As String = "apple"

If strA.Equals(strB) Then

lblAnswer.Text = "The strings are the same."

Else

lblAnswer.Text = "The strings are the different."

End If

1. What is the output of the following code?  
    Dim strA As String = "Programming rocks!"

Dim intIndex As Integer

intIndex = strA.IndexOf(" ")

lblAnswer.Text = intIndex

1. What is the output of the following code?  
     
    Dim strA As String = "Catasmount"  
    Dim strNew As String

strNew = strA.Insert(3, "s")

lblAnswer.Text = strNew

1. What is the output of the following code?  
     
    Dim strA As String = "computer"

Dim strB As String = "Programming"

Dim strNew, strNew2 As String

strNew = strA.Remove(0)

strNew2 = strB.Remove(6, 1)

lblAnswer.Text = strNew2 & " " & strNew

1. What is the output of the following code?

Dim strA As String = "Computer”

Dim strB As String = "Programming"

Dim strNew, strNew2 As String

strNew = strA.Replace("a", " ")

strNew2 = strB.Replace("m", "")

lblAnswer.Text = strNew & " " & strNew2

1. What is the output of the following code?

Dim strA As String = "Catamount"

lblAnswer.Text = strA.ToLower

1. What is the output of the following code?

Dim strA As String = "Catamount"

lblAnswer.Text = strA.ToUpper

1. What is the output of the following code?

Dim strA As String = " Panther "

Dim strB As String = "Creek"

strA= strA.Trim

lblAnswer.Text = strA & strB

1. What is the output of the following code?

Dim strA As String = " Panther "

Dim strB As String = "Creek "

strA = strA.TrimEnd

lblAnswer.Text = strA & strB

1. What is the output of the following code?

Dim strA As String = " Apple "

Dim strEx As String = "Example: "

Dim strNew As String

strNew = strA.TrimStart

lblAnswer.Text = strEx & strNew

1. Dim strA As String = "Pink"  
   Dim strB As String = "Orange"

If String.Compare(strA, strB) = 0 Then  
   lblAnswer.Text = strA & " is equal to " & strB  
ElseIf String.Compare(strA, strB) < 0 Then  
   lblAnswer.Text = strA & " comes before " & strB  
ElseIf String.Compare(strA, strB) > 0 Then  
   lblAnswer.Text = strA & " comes after " & strB  
End If

What would be the output in the label?

1. What is the result of the following code?

Dim strFullName As String = ""  
Dim strFirstName As String = "Joe"  
Dim strLastName As String = "Johnson"

strFullName As String = String.Concat(strFirstName, strLastname)  
lblShowName.Text = strFullName

1. Given the following statements, what is the output displayed in the label?

Dim strWord1 = "monkey"  
Dim strWord2 = "Monkey"

If strWord1.equals(strWord2) Then  
   lblResult.Text = "The words are the same."  
else  
   lblResult.Text = "The words are different."  
End If

1. Given the following statements, what is displayed in the label?

Dim dblNumber As Double = 78.9878164894561  
Dim dblRoundedNum As Double

dblRoundedNum = Math.Round(dblNumber, 3)  
Me.lblAnswer.Text=dblRoundedNum.ToString()

1. What is the value of intPosition given the following code?

Dim intPosition As Integer = 0  
Dim strWord As String = "Apple"

intPosition = strWord.IndexOf("l")

1. What would be the result of the expression String.Compare(strA, strB) given the following declarations?

Dim strA As String = "Hello"  
Dim strB As String = "Goodbye"

1. Given a string variable called strWord, what statement will return the last letter in the string?