**Computer Programming I**

**Essential Standard 7.00 Apply Advanced Logic  
Indicator 7.03 Apply Built-in Math Functions (3%)**

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

1. Define:

* Class

**A data type that includes properties and methods**

* Members

**The properties and methods of a class**

* Object

**The variable of a class**

1. How does an object access a member of its class?

**By using a dot (.)**

1. What does the Length property do?

**Gets the length of a string**

1. Complete the code to find the length of the string strAnimal.  
    intLength = **strAnimal.Length**
2. What does the Chars property do?

**To get any character at a certain point in string**

1. Given a string called strWord, complete the code to find each of the following.
   1. The first letter   
       chrLetter = **strWord.Char(0)**
   2. The last letter   
       chrLastLetter = **strWord.Char(chrLastLetter.Length)**
   3. The middle letter   
       chrMidLetter = **strWord.Char(chrMidLette.Length/2)**
2. Define each String class function. (What does it do? What is the basic syntax?)
   1. The Compare() Function

**Compares two different String Objects and returns an integer**

**String.Compare(strOne, strTwo)**

* 1. The Concat() Function

**This will merge two strings**

**String.Concat(strA, strB)**

* 1. The Equals() Function

**This function will compare two objects and return a Boolean after comparing them.**

**strA.Equals(strB)**

* 1. The IndexOf() Function

**This functions will return the index position of a character or string**

**strA.indexOf(‘p’)**

* 1. The Insert() Function

**This will insert a string at a specified index position**

**strA.Insert(3,’h’)**

* 1. The Remove() Function

**This functions returns a new string where the specified string has been deleted**

**strA.Remove(0)**

* 1. The Replace() Function

**Returns a new string that you specifies**

**strA.Replace(‘a’,’b’)**

* 1. The ToLower() Function

**Returns the copy of the string in lowercase**

**strA.ToLower()**

* 1. The ToUpper() Function

**Returns the copy of the string in uppercase**

**strA.ToUpper()**

* 1. The Trim() Function

**Removes the blanks from a string**

**strA.Trim()**

* 1. The TrimEnd() Function

**Remove the blanks after a string**

**strA.TrimEnd()**

* 1. The TrimStart() Function

**Removes the blanks before a string**

1. 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

**Butter comes before Peanut**

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   
   **Programming Rocks**
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

**The strings are the different**

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

**11**

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

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

lblAnswer.Text = strNew

**Apes**

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

Dim strB As String = "Programming"

Dim strNew, strNew2 As String

strNew = strA.Remove(0)

strNew2 = strB.Remove(6, 1)

lblAnswer.Text = strNew2 & " " & strNew  
 **Programing pex**

1. What is the output of the following code?

Dim strA As String = "Apex"

Dim strB As String = "Programming"

Dim strNew, strNew2 As String

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

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

lblAnswer.Text = strNew & " " & strNew2  
 **Apex Prograing**

1. What is the output of the following code?

Dim strA As String = "Apex"

lblAnswer.Text = strA.ToLower  
 **apex**

1. What is the output of the following code?

Dim strA As String = "Apex"

lblAnswer.Text = strA.ToUpper  
 **APEX**

1. What is the output of the following code?

Dim strA As String = " Apex "

Dim strB As String = "High"

strA= strA.Trim

lblAnswer.Text = strA & strB

**ApexHigh**

1. What is the output of the following code?

Dim strA As String = " Apex "

Dim strB As String = "High "

strA = strA.TrimEnd

lblAnswer.Text = strA & strB  
 **ApexHigh**

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

**Example: Apple**