

# CSCI 2500 TEST 1 STUDY GUIDE FALL 2009

## Chapter 1: An Introduction to Computers and Problem Solving - OMIT

## Chapter 2: Visual Basic, Controls, and Events

1. Compare event-driven programming to the traditional procedure-oriented programming
2. What are the rules for naming controls in Visual Basic?
3. Write the Visual Basic statements to do the following:
  - a) Cause Label1 (set to invisible in the Properties in the design phase) to become visible after an event occurs.
  - b) Set the background color of Textbox1 to red after runtime.
  - c) Set the font color for Textbox1 to blue after runtime.
  - d) Display the word "Hello" in Textbox1 after runtime.
  - e) Display "Hello" as the last item in Listbox1 after runtime.
  - f) Declare the variable x to be Double with initial value 1.23 .
  - g) Write a shorter statement than "x=x+5" to add 5 to x.
  - h) Using one statement declare and initialize the variable x to be Double with initial value 1.23 and the variable y to be Integer with initial value 45
  - i) Convert the real number that the user types into txtBox to a Double value called numVar.
  - j) Convert the Double value numVar to a string and put it in txtBox.
  - k) Change the title bar of the form to "Assignment 1".

## Chapter 3: Variables, Input, and Output

1. Display the result of raising 2 to the 10<sup>th</sup> power as the last item in Listbox1.
2. Erase all items in Listbox1.
3. What are the rules for naming variables in Visual Basic?
4. Describe the Double data type.
5. Describe the Integer data type.
6. What is the value of each of the following?
  - a) Math.Int(2.5)
  - b) Math.Round(2.5)
  - c) Math.Int(3.5)
  - d) Math.Round(3.5)
  - e) Math.Round(3.567,2)
  - f) Math.Sqrt(-5)
  - g) 5/0
  - h) "Hall" & "o" & "ween"
  - i) "x=" & 5
  - j) "fanatic".Substring(0,3)
  - k) "fanatic".Substring(4,2)
  - l) "fanatic".Substring(4)
  - m) "fanatic".IndexOf("na")
  - n) "fanatic".IndexOf("nt")
  - o) FormatNumber(12345.628,1)
  - p) FormatCurrency(12345.628,2)
  - q) FormatPercent(0.185,2)
  - r) FormatCurrency(-1000)

7. Given the following Dim  
 Dim fmtStr As String = "{0,7:N1}{1,8:C2}{2,9:P}"  
 and the values x=123, y=45, z=.543, what is displayed by the following (show all spaces)?
8. Write the Visual Basic statements to do the following:
- Open the file called LC.TXT for input.
  - Write a statement to read the next line from the file opened in part (a) and save it as a double called x.
  - Close the file opened in part (a) above.  
 sr.Close()

## Chapter 4: Decisions

1. Write the Visual Basic statements to do the following:
- If x equals 0, put "Zero" in txtBox.
  - If x doesn't equal 0, put "Nonzero" in txtBox.
  - If x is greater than or equal to 0 and less than 60, put "Failed" in txtBox.
  - If x is less than 80 or greater than or equal to 90, put "Not a B" in txtBox.
  - If it's not true that x is greater than or equal to 0, put "Negative" in txtBox.
  - Using If and Else (not ElseIf), if grade is greater than or equal to 90, put "A" in txtBox, otherwise if grade is greater than or equal to 80, put "B" in txtBox, otherwise if grade is greater than or equal to 70, put "C" in txtBox, otherwise if grade is greater than or equal to 60, put "D" in txtBox, otherwise put "F" in txtBox.
  - Using If and ElseIf, if grade is greater than or equal to 90, put "A" in txtBox, otherwise if grade is greater than or equal to 80, put "B" in txtBox, otherwise if grade is greater than or equal to 70, put "C" in txtBox, otherwise if grade is greater than or equal to 60, put "D" in txtBox, otherwise put "F" in txtBox.
  - Write the above using a Select Case block.
  - Write a Select Case block so that if x is between 1 and 5, put "1-5" in txtBox, otherwise if x is either 6 or 8, put "6 or 8" in txtBox, otherwise put "not" in txtBox.