

1. Assume that a game has a Reset and StartGame button. Which line of code would you most likely want to execute when the StartGame button is clicked?
- A. cmdReset.enabled = false  
cmdStart.enabled = false
  - B. cmdReset.enabled = false  
cmdStart.enabled = true
  - C. cmdReset.enabled = true  
cmdStart.enabled = true
  - D. cmdReset.enabled = true  
cmdStart.enabled = false
  - E. cmdStart.enabled = true

2. The user has entered 15 in the textbox, what will the message box say after this code executes?

```
Dim num as Double
num = Val(txtA)
If (num>0) Then
  MsgBox("A")
Else If (num>=10) Then
  MsgBox("B")
Else If (num>=15) Then
  MsgBox("C")
Else If (num>=20) Then
  MsgBox("D")
Else
  MsgBox("E")
End If
```

- A. A
  - B. B
  - C. C
  - D. D
  - E. E
3. A student is writing a game and wants to know if the user has gone over the 30 second time limit. The 'time' variable starts at zero and counts upward (eg. 1, 2, 3, 4, ...) Which statement would work best?
- A. If (time >= 28) Then ...
  - B. If (time < 0) Then ...
  - C. If (time = 0) Then ...
  - D. If (time > 30) Then ...
  - E. If (30 > time) Then ...

4. What order of code would make a word in txtA show up in txtB ?

```
I. txtB = s
II. Dim s as String
III. s = txtA
IV. s = txtB
```

- A. I then III then IV
- B. IV then II then I
- C. II then III then IV
- D. III then I
- E. II then III then I

5. To test if a user can enter your program, you require that they enter their username and an ID. The correct username is "John" and the ID is 99. Which line correctly tests for the correct combination?
- If (txtUsername = "John") Or (txtID = "99") Then ...
  - If (txtUsername = John) And (txtID = 99) Then ...
  - If (txtUsername = "John") Or (txtID = 99) Then ...
  - If (txtUsername = John) Or (txtID = 99) Then ...
  - If (txtUsername = "John") And (txtID = "99") Then...
6. Which line of code properly increases an Integer called num by a large random number?
- num + Rnd
  - num + Rnd\*10000
  - num = num\*10000 + Rnd
  - num = num + Rnd\*10000
  - num = Rnd\*10000
7. The following code is error free. Which is true when two different numbers are entered?
- ```
Dim a as Integer
Dim b as Integer
a = Val(txtA)
b = Val(txtB)
If (a < b) Then
    txtC = a
Else
    txtC = b
End If
```
- The number in txtA always shows up in txtC
  - The number in txtB always shows up in txtC
  - The larger of the two numbers will show up in txtC
  - The smaller of the two numbers will show up in txtC
  - Nothing will ever show up in txtC
8. The user has typed a number into textbox txtA. What is the result of the following segment of code?
- ```
Dim x as Integer
x = Val(txtA)
x = x + 1
txtA = x
```
- The number in textbox txtA is unchanged
  - The number in textbox txtA increases by one
  - Textbox txtA will display 1
  - Textbox txtA will be empty
  - Textbox txtA will display 0

9. Consider the code that a student has written. What situation will make the game say "Super Star!" ?

```
If (time < 1) Then
  Timer1.enabled = false
  Player.enabled = false
  If (score < 1000) Then
    MsgBox("Super Star!")
  Else
    MsgBox("Try Again!")
  End If
  Beep
End If
```

- A. time equals 1 and score equals 1200
- B. time equals 1 and score equals 1000
- C. time equals 0 and score equals 500
- D. time equals 0 and score equals 1000
- E. score equals 400

10. Which would set  $x$  to a random number between 10-20 ?

- A.  $x = \text{Rnd} * 20$
- B.  $x = \text{Rnd} * (10 - 20)$
- C.  $x = \text{Rnd} * (10, 20)$
- D.  $x = \text{Rnd} * 10 + 10$
- E.  $x = \text{Rnd} * 10 + 20$

11. Consider a Dice rolling game. Assume that the variables have already been created. Which is true about this code?

```
num = Rnd * 6
dice1 = num
dice2 = num
```

- A. The dice will always be a number between 1 and 6
- B. dice1 will always be smaller than dice2
- C. dice1 will always be larger than dice2
- D. dice1 and dice2 will have different values most of the time
- E. dice1 and dice2 will always equal each other

12. Programming is mostly about

- A. memorizing complicated commands
- B. performing a lot of math
- C. figuring out the most basic steps towards solving a problem
- D. copying your partners code

13. Which statement correctly checks to see if both number1 and number2 are small numbers?

- A. If (number1 < 5) Or (number2 < 1) Then ...
- B. If (number1 < 5) And (number2 < 5) Then ...
- C. If (number1 >= 5) And (number2 <= 5) Then ...
- D. If (number1 < number2 < 5) Then ...
- E. If (number1 <= 5) Or (number2 >= 5) Then ...

14. Consider a game where the user gets 5 points every time they click a button. What code would you probably use?

- A. `score + 5`  
`txtScore = score`
- B. `txtScore = txtScore + 5`
- C. `score = score + 5`  
`score = txtScore`
- D. `score + 5 = score`  
`txtScore = score`
- E. `score = score + 5`  
`txtScore = score`

15. What would you expect the Message Box to say?

```
Dim num as Integer
num = 25
If (num<25) Then
    MsgBox("A")
End If
If (num>25) Then
    MsgBox("B")
Else
    MsgBox("C")
End If
```

- A. A
- B. B
- C. C
- D. No message box would appear

16. You want a program to find the number of hotdogs, and calculate the cost of the hotdogs with tax. Which declarations are the BEST for this program?

- I. Dim hotdogs as Double
- II. Dim hotdogs as Integer
- III. Dim cost as Double
- IV. Dim cost as Integer

- A. I and III
- B. I and IV
- C. II and III
- D. II and IV
- E. I, II, III, and IV would work fine

17. The following program is supposed to calculate the average of two grades, but it rarely shows the correct answer. Can you fix it?

```
1 Dim grade1 as Double
2 Dim grade2 as Double
3 Dim average as Double
4 average = (grade1 + grade2) / 2
5 txtAverage = average
```

- A. make grade1 and grade2 Integers
- B. grab the user input just before line 1
- C. grab the user input right after line 3
- D. reverse line 5 - it's backwards!
- E. There are too many errors in there to fix!

18. Which line in this segment of code has an error that will prevent the program from running properly?

```
1 Dim score as Double
2 Val(score) = txtA
3 If ( score > 100 ) Then
4   txtA = "Over 100"
5 End If
```

- A. Line 1
- B. Line 2
- C. Line 3
- D. Line 4
- E. Line 5

19. The user has typed the word "HI" into textbox txtA. What will the result of the following code be?

```
Dim w as String
w = "BYE"
txtA = w
txtB = w
```

- A. txtA and txtB will both show "HI"
- B. txtA and txtB will both show "BYE"
- C. txtA will show "HI" and txtB will show "BYE"
- D. txtA will show "BYE" and txtB will show "HI"
- E. txtA and txtB will both show "w"

20. To reach level two, you need 1000 points. Which would work?

- I. If points > 999 Then  
    level = 2  
Else  
    level = 1  
End If
- II. If points < 1000 Then  
    level = 1  
Else  
    level = 2  
End If

- A. I only
- B. II only
- C. I and II
- D. neither I nor II