Visual Basic Practice Final Exam

True/False
1. `Dim scores As Integer(10)` declares an array of integers.
2. At least one parameter must be passed to a function.
3. The `Enabled` property can be used with menu command objects (i.e. menu items.)
4. The `Close` method is used to make a message box disappear.
5. An array is a type of method.
6. The scope of a variable declared outside of all the methods on a form is *wider* than that of a local variable.
7. A form has a method named `KeyClick` that executes when the user presses a key on the keyboard.
8. The statement `num =+ 3` causes three to be added to the original value of the variable `num`.

For the following set of questions indicate True or False depending on whether syntax errors are present. Do not consider logic errors. Remember that a syntax error is an error that prevents VB from executing a statement or line of code. You can assume that variables with the `int` prefix are `Integer` variables that were properly declared and that object names with prefixes are valid objects.

9. There are no syntax errors in the statement: `Dim (5)intMyList As Integer`
10. There are no syntax errors in the statement: `Const MAX As Integer = 500`
11. There are no syntax errors in the statement: `InputBox("Enter a number: ") = intUserNum`
12. There are no syntax errors in the statement: `For intCounter = 1 To 4`
13. There are no syntax errors in the statement: `picRectangle.Top = 500`

Determine the Output – Write your answers on the answer sheet that has been provided.

Trace the following code segments and answer the following questions. If a final answer is a string, make sure that you surround the answer with double quotes ("John-ƀDoe"). Represent blank spaces as the letter b with a slash through it (ƀ). If you believe an error exists, explain it as carefully and thoroughly as possible. Assume that all variables and objects referred to in each code segment have been declared or created with any default values normally supplied by Visual Basic.

```
For J = 0 To 5                                    sum        J
    sum = sum + J
Next
```

14. What is the final value of `sum` ?
15. What is the final value of `J` ?

```
Dim total As Integer = 0                              J      total
Dim numbers() As Integer = {12, 10, 8, 32, 64, 9}

For J = 0 To 4
   If (numbers(J) > 10) Then
      total += numbers(J)
   Else
      numbers(J) = 0
    End If
Next
```

16. What is the final value of the variable `total`?
17. What is the final value of the variable `numbers(2)`?
18. What is the final value of the variable `numbers(3)`?
19. What is the final value of the variable `numbers(5)`?

Write Code - Write Visual Basic code that fulfills the following tasks. You must use any variable and object names that are specified but you may declare additional variables if necessary.

20. Write a declaration statement for an array of `Integer`'s named `scores` with length of 10.

21. Write a statement that assigns a random integer between or including 1 and 10 in the variable `num`.

22. Write a statement that assigns a random integer between or including 11 and 20 in the variable `num`.

23. Write an `If` statement that detections a collision between a `PictureBox` named `picEnemy` and a horizontal line that goes from (10, 20) to (100, 20).

24. Write a `For` loop that finds the sum of the integers 5 through 10 and stores the final answer in the variable `sum`. Use the loop variable `J` in the `For` loop.

25. Write a code segment that uses a `While` loop to allow the user to input integers into an `InputBox` until zero is inputted. When the zero is inputted, the loop must end and the code segment must display the total of all the inputted integers in `MessageBox`.

26. Write a function named `DiceRoll` that returns a random integer between or including 1 and 6.

```
Private Function DiceRoll() As Integer



End Function
```

27.   Write a method named `Reset` that sets the top, left corner of a `PictureBox` named `picPlayer` to the (x, y) coordinates of (80, 100).

```
Private Sub Reset()



End Sub
```

28. Write a code segment that uses a loop to search an array named `list` to determine if the value 5 is stored in any position within `list`. The array has fifty elements with the subscript positions 0 to 49. If the value 5 is found, display a message box with the phrase "`5 was found`". You must declare all variables properly.

29. Write out the Hello World program that we studied in the first week of school.

30. Write out the truth table exactly as we learned this year. Use 1's and 0's rather than the words true and false.