

17. Given the following code fragment and the input value of 2.0, what output is generated?

```
float tax;

float total;

cout << "enter the cost of the item\n";
cin >> total;

if (total >= 3.0)
{
    tax = 0.10;
    cout << total + (total * tax) << endl;
}
else
{
    cout << total << endl;
}
```

- a. 2.2
- b. 2.0
- c. 3.1
- d. 4.4

18. Which of the following best describes an operator?

- a. An operator is a rule that must be followed when constructing a program.
- b. An operator allows you to perform operations on one or more pieces of data.
- c. An operator marks the beginning or ending of a statement or is used to separate items in a list.
- d. An operator is a word that has a special meaning.

19. Which step uncovers any syntax errors in your program?

- a. Editing
- b. Compiling
- c. Linking
- d. Executing

20. What is the correct conditional statement to determine if x is between 19 and 99?

- a. (x < 19 && x > 99) **F**
- b. (x < 19 || x > 99)
- c. (x > 19 && x < 99)
- d. (x > 19 || x < 99) **T**

21. Which of the following is not a valid identifier?

- a. myInt - Java
- b. myInteger
- c. return - Keyword
- d. my_integer - C/C++

22. What is the value of x after the following statements?

```
int x;  
x = x + 30;
```

- a. 0
- b. 30
- c. 33
- d. Garbage

23. Which of the following statements is NOT legal?

- a. char ch = 'b';
- b. char ch = '0';
- c. char ch = 65;
- d. char ch = "cc";

24. What is the value of x after the following statements?

```
float x;  
x = 3/2;
```

- a. 1.5
- b. 3.0
- c. 1.0
- d. 6.0

25. Given the following code fragment, which of the following expressions is always true?

```
int x;  
cin >> x;
```

- a. if (x < 3)
- b. if (x == 1)
- c. if ((x / 3) > 1)
- d. if (x = 1)

26. Which of the following is not a good reason for choosing a certain loop control?

- a. ~~What the loop does~~
- b. ~~The minimum number of iterations of the loop~~
- c. ~~The condition for ending the loop~~
- d. If the loop is in a function

27. The _____ describes how the function will work.

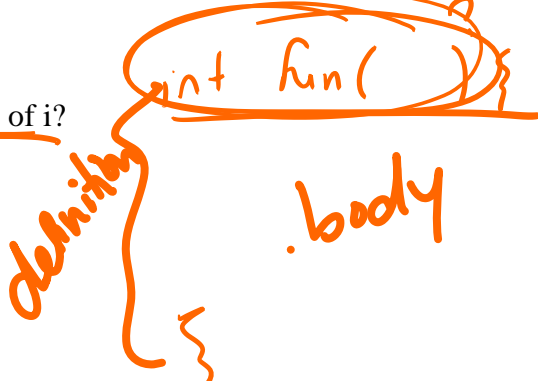
- a. function declaration
- b. function header
- c. function body
- d. function call - define

function name:
description
⋮

28. Given the following code, what is the final value of i?

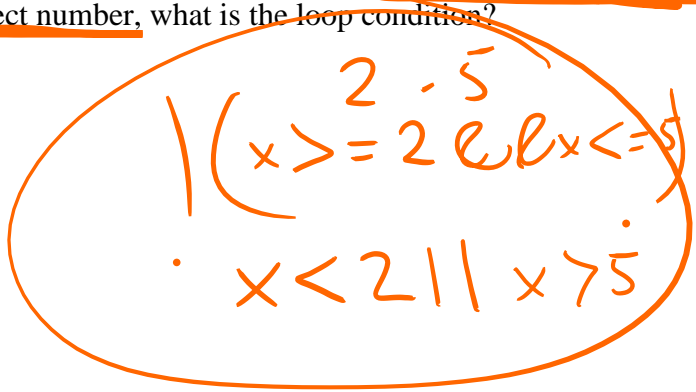
```
int i;  
for(i=0; i<=4; i++)  
{  
    cout << i << endl;  
}
```

- a. 3
- b. 4
- c. 5**
- d. 0



* 29. If you need to write a do-while loop that will ask the user to enter a number between 2 and 5 inclusive, and will keep asking until the user enters a correct number, what is the loop condition?

- a. $(2 \leq \text{num} \leq 5)$
- b. $(2 < 5 < \text{number})$
- c. $(2 \leq \text{number} \ \&\& \ \text{number} \leq 5)$
- d. $(2 < \text{number} \ || \ \text{number} > 5)$



* 30. What is wrong with the following for loop?
for (int i=0; i < 10; i--) {

```
    cout << "Hello\n";  
}
```

- a. can not use a for-loop for this
- b. i is not initialized
- c. infinite loop
- d. off-by-one error



31. What is the value returned by the following function?

```
int function()  
{  
    int value = 35;  
    return value + 5;  
    value += 10;  
}
```

- a. 35
- b. 40**
- c. 50
- d. 10

32. Multiple arguments to a function are separated by

- a. comments
- b. semicolons
- c. colons
- d. commas

fun(a, b);

33. If you need to write a function that will compute the cost of some candy, where each piece costs 25 cents, which would be an appropriate function declaration?

- a. int calculateCost(char name);
- b. char calculateCost(int count);
- c. int calculateCost int count;
- d. int calculateCost(int count);

34. If you have the following variable declaration in your program,
~~const int SIZE=34;~~

then which of the following statements are legal?

- a. SIZE ++;
- b. x = SIZE--;
- c. cout << SIZE;
- d. cin >> SIZE;

35. When a variable is assigned a number that is too large for its data type, it

- a. Underflows
- b. Overflows
- c. Reverses
- d. Converts

36. Which statement is equivalent to the following?

number += 1;

- a. number = number - 1;
- b. number = number + 1;
- c. number = 1;
- d. number =+ 1;

37. Which of the following statements will read an entire line of input into the string object, address?

- a. cin << address;
- b. cin address;
- c. cin.get (address);
- d. getline (cin, address);

38. To use the rand() function, you must include the _____ header file?

- a. <stdlib
- b. <cstring
- c. <iostream
- d. <cmath

stdlib.h