CPET 1120 - C Programming For Engineering Technology June 27, 2022

Name: Mohammad Zoraiz Homework 3

1. Which of the following numbers would be tested as true?
A. 1
B. 66
C. 0.1
D. -1
E. All of the above

2. Which of the following is the Boolean operator for logical AND?
A. &
B. &&
C. |
D. |&

3. Evaluate !(1 && !(0 || 1)).
A. True
B. False
C. Unevaluatable

4. Which of the following shows the correct syntax for an if statement?
A. if *expression*
B. if { *expression*
C. if (*expression*)
D. *expression* if

5. If x=5 and y=3 will this condition execute? if(x > y)
A. yes
B. no

6. What do conditions do for programs?
A. faster processing
B. adds versatility
C. crashes them

7. What does an else statement do?
A. gives an alternative to the test conditions
B. always executes
C. nothing

8. When does if(x==y) execute?
A. when x is equal to y
B. when x does not equal y
C. never, it is just a check to see if x is equal to y

9. When creating an if() statement, when are curly braces required?
A. when there is only one statement line related to the test condition
B. when there are two or more statement lines related to the test condition
C. never
D. always

10. When does if(x!=y) execute?
A. when x doesn't equal y
B. when x does equal y
C. when x is greater than y

11. If x = 5 and y = 7, will statement if(x!=y) execute?
A. yes
B. no

Mohammad Zoraiz

12. When does if(x>=y) execute?
A. when x is greater than y
B. when x is equal to y
C. when x is greater than or equal to y

13. If x = 8 and y = 8 will if(x>=y) execute?
A. yes
B. no

14. When evaluating an AND operator, what is necessary for execution?
A. Only one condition can be true
B. Only one condition must be true
C. Both conditions must be true

15. Will if((x > 4) && (y < 8)) execute when x = 5 and y = 7?
A. yes
B. no

16. When evaluating an OR operator, what is necessary for execution.
A. Only one condition can be true
B. One condition must be true
C. Both conditions must be true

17. Will if((x > 7) || (y >= 15)) execute? When x = 7 and y = 15?
A. yes
B. no

18. Analyze the program below and write on the blank lines the exact statements displayed on the screen after the program executes.

```
void main(void)
{
     int result;
     result = (0 && 1) || (1 && 0);
     printf("(0 && 1) || (1 && 0) = %d\n", result);
     result = (0 || 1) && (0 || 0);
     printf("\n(0 || 1) && (0 || 0) = %d\n", result);
}
```

Statement - (0 && 1) || (1 && 0) = 0

Statement - (0 || 1) && (0 || 0) = 0

Statement - _____

Statement - _____

19. Circle each number assignment that will cause the "if" statement given below to execute:

number = 0.999999; number = 9.999999; number = 100.000; number = 90.000;

```
if (((number >= 1.0) && (number < 10.0)) || ((number > 90.0) && (number <= 100.0)))
     {printf("This if statement executed.");}
```