

1. what is the final value of x and y after the following code snippet executes?

```
int x=5;  
int y=0;  
if (x++ > 5){  
    y=1;  
} else {  
    y=2;  
}
```

A. x=5, y=1

B. x=5, y=2

C. x=6, y=1

D. x=6, y=2

2. Given the following code, what is the value of z after the while loop finishes?

```
int z=3;  
while (--z){  
    // Do nothing  
}
```

A. 3

B. 1

C. 2

D. 0

3. What is the final value of p if the initial value of p is 10?

```
int p=10;  
if (p-- > 10){  
    p=p+5;  
} else {  
    p=p-3;  
}
```

A. 7

B. 15

C. 14

D. 6

4. Consider the for loop:

```
for(int i=0; i<5; i++) {  
    if (i++ < 2) {  
        //inner loop body  
    }  
}
```

How many times does the expression  $i < 5$  (the loop condition) get evaluated as true?

- A. 4
- B. 5
- C. 3
- D. 2

5. In the following code, what is the final value of a?

```
int a=1;  
if (++a > 1) {  
    a = a + 1;  
} else {  
    a = a - 1;  
}
```

- A. 2
- B. 4
- C. 3
- D. 1

6. What is printed by the following code?

```
10. int m = 10;  
if (m-- >= 10) {  
    System.out.println("A");  
} else {  
    System.out.println("B");  
}  
System.out.println(m);
```

- A. B  
10
- B. B  
9
- C. A  
10
- D. A  
9

7. How many times will be the body of the do-while loop execute?

```
int i = 4;  
do {  
    i--;  
} while (i++);
```

A. Infinitely (the condition is always non-zero in a cycle).

B. 5

C. 4

D. 3

8. What is the final value of a and b?

```
int a=1;  
int b=5;  
if (++a || b--) {  
    a=a+1;  
} else {  
    b=b+1;  
}
```

- A. a=2, b=5
- B. a=3, b=4
- C. a=3, b=5
- D. a=2, b=4.

9. What is the final value x and y?

```
int x=1;  
int y=5;  
if (x++ > 1 && y-- > 0) {  
    x=10;  
} else {  
    y=10;  
}
```

- A. x=10, y=10
- B. x=2, y=5
- C. x=2, y=10
- D. x=2, y=4.

10. Which of the following is equivalent to the expression if(x++)?

Assuming x is an integer variable.

A. if (x is initially non-zero AND x is equal to 1)

B. if (x is initially non-zero, and x is incremented before the check)

C. if (x is initially non-zero, and x is incremented only if the Condition is true)

D. if (x is initially non-zero, and x is incremented after the check)

11. What is the final value of i after the for loop finishes?

```
for(int i=0; i<5; i++) {  
    if(i % 2 == 0)  
        i++;  
}
```

- A. 5
- B. 3
- C. 4
- D. 6

12. Given the initial values  $x=0$  and  $y=0$ , what are their final values?

```
int x=0;  
int y=0;  
if(x++ && y++) {  
    // Block A  
}
```

- A.  $x=1, y=1$
- B.  $x=1, y=0$
- C.  $x=0, y=1$
- D.  $x=0, y=0$

13. What is the final value of k?

```
int k=5;  
if(k++ || k++) {  
    k=k+1;  
}
```

- A. 6
- B. 7
- C. 5
- D. 8

14. How many times does the outer loop body execute?

```
for (int i=0; i<3; i++) {  
    for (int j=0; j++ < 2;) {  
        // inner loop body  
    }  
}
```

- A. 9
- B. 3
- C. 6
- D. 2

finished?

15. what is the final value of a and b?
- ```
int a = 2;
int b = 2;
if (++a == b--) {
```
- A. a=5, b=1  
B. a=5, b=2  
C. a=3, b=1  
D. a=3, b=5

16. How many times will the while loop execute?

```
int x = 1;
while (x < 4) {
    if (x++ % 2 == 0) {
        break;
    }
}
```

- A. 2  
B. 3  
C. 4  
D. 1

17. What is the final value of i and j?

```
int i = 1;
int j = 1;
if (++i == ++j) {
```

i = 10;

j = 10;

- A. i=10, j=2  
B. i=2, j=2  
C. i=10, j=10  
D. i=1, j=1

18. Consider the condition  $\$ \text{if } (a-- \& \& b++) \$$ . which of the following statements about this condition is TRUE when  $a=1$  and  $b=0$  initially?

- A. The if block is skipped, and the final values are  $a=0, b=1$   
B. The if block executes, and the final values are  $a=0, b=1$   
C. The if block executes, and the final values are  $a=1, b=0$ .  
D. The if block is skipped, and the final values are  $a=0, b=0$ .

19. What happens if a programmer uses the expression  $++(x++)$  in a conditional statement (e.g. if( $++(x++) > 0$ ))?

- A. It is valid and increments  $x$  by 1, using the initial value for the check.
- B. It is syntactically valid and increments  $x$  by 2.
- C. It increments  $x$  by 1, using the final value for the check.
- D. It results in a compile-time error because  $x++$  returns a value, not a variable reference.

20. What is the final value of count?

```
int Count = 1;  
while (Count ++ < 3){  
    Count = Count + 1;  
}
```

- A. 6
- B. 4
- C. 5
- D. 3

2. program to find maximum b/w three number  
using nested if.

```
#include<stdio.h>
```

```
int main(){
```

```
    int a,b,c,max;
```

```
    printf("Enter three integers:");
```

```
    scanf("%d %d %d", &a, &b, &c);
```

```
    if (a>=b){
```

```
        if (a>=c){
```

```
            max=a;
```

```
        } else {
```

```
            max=c;
```

```
        }
```

```
    } else {
```

```
        if (b>=c){
```

```
            max=b;
```

```
        } else {
```

```
            max=c;
```

```
        }
```

```
    }
```

```
    printf("The maximum number is: %d\n", max);
```

```
    return 0;
```

```
}
```