

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

```
int x = 5;
```

```
int y = 9;
```

```
if (x++ > 5) {
```

```
    y = 1;
```

```
    y also {
```

```
        y = 2;
```

```
}
```

A.  $x = 5, y = 1$

B.  $x = 5, y = 2$

C.  $x = 6, y = 1$

D.  $x = 6, y = 2$

2. Give 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 its initial value of  $p$  is

```
int p = 10;
```

```
if (p-- > 10) {
```

```
    p = p + 5;
```

```
    y also {
```

```
        p = p - 3;
```

```
}
```

A. 7

B. 15

C. 14

D. 6

4. Condition for loops.

```
for (int i = 0; i < 5; i++) {
```

```
    if (i++ < 2) {
```

```
        // inner loop body
```

```
    }
```

```
}
```

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

```
int x = 5;  
int y = 0;  
if (x + y > 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. Give 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 its initial value of  $p$  is

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

- A. 7
- B. 15
- C. 14
- D. 6

4) Condition for loops.

```
for (int i = 0; i < 5; i++) {  
    if (i + 1 < 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 the printed by following code?

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

A. B

B. 9

C. A

D. A

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

```
int i = 4;
```

```
do {
```

```
    i--;
```

```
} while (i > 1);
```

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

B. 5

C. 4

D. 3



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 the printed by following code?

```
int m = 10;
```

```
if (m-- > 7) {
```

```
    system.out.print("A");
```

```
    } else {
```

```
    system.out.print("B");
```

```
    }
```

```
    system.out.println(m);
```

A. B

B. B

C. A

D. A

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

```
int i = 4;
```

```
do {
```

```
    i--;
```

```
    } while (i++ > 1);
```

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

B. 5

C. 4

D. 3

A.  $a=5, b=1$

B.  $a=5, b=2$

C.  $a=3, b=1$

D.  $a=3, b=2$

16. How many times will the while loop execute?

```
int x = 1;
while (x < 4) {
    if (x + 12 == 0) {
        break;
    }
}
```

A. 2

B. 3

C. 4

D. 2

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

```
int i = 1;
int j = 1;
if (i + j == i + j) {
    i = 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  $if (a-- < b++)$  # which of the following statements about this condition is TRUE  $a=3$  and  $b=0$  initially?

A. The if block is skipped and the final values are  $a=0, b=3$

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 program uses the expression  $++(x++)$  in a conditional statement eg.  $if ((x++)/4)$ ?

A.  $++$  is valid and increments  $x$  by 1 using the initial value for the check

- B It is valid syntactically valid and increments  $x$  by 2  
 C It increments  $x$  and by 4 using the final value to the check  
 D It results in a compile-time error because  $x++$  value is not a variable reference.

20 What is the final value of count?

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

A = 6

B = 4

C = 5

D = 3.

21 Program to find maximum b/w three numbers 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 = b;
```

```
        }
```

```
    } else {
```

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

```
            max = b;
```

```
        } else {
```

```
            max = c;
```

```
        }
```

```
    }
```

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

```
    return 0;
```

```
}
```