

- What is the output of the following code snippet?

```
int a = 5, b = 10;
int result = a++ + ++b;
printf("%d, %d, %d", result, a, b);
```

a) 15, 6, 11 b) 16, 6, 11 c) 15, 5, 10 d) 16, 5, 11 Answer: b) 16, 6, 11 [1]

- If  $x = 7$ , what is the value of  $x$  after  $x--$ ?

a) 6 b) 7 c) 8 d) Undefined Answer: b) 7 (The value of  $x$  is decremented after it's used in the expression, if any. The variable  $x$  itself becomes 6 after the statement.)

- What is the value of  $y$  after the following operations?

```
int i = 10;
int y = --i;
```

a) 9 b) 10 c) 11 d) 8 Answer: a) 9

- Consider  $\text{int } p = 5$ ; What is the value of  $p$  after  $p++$ ?

a) 5 b) 6 c) 4 d) Undefined Answer: b) 6 What will be the output.

```
int m = 3;
int n = m++ * 2;
printf("%d, %d", m, n);
```

a) 3, 6 b) 4, 6 c) 4, 8 d) 3, 8 Answer: b) 4, 6

Left Shift Operator (&lt;&lt;)

- What is the result of  $8 \&lt;\&lt; 1$ ?

a) 4 b) 8 c) 16 d) 32 Answer: c) 16

- If  $x = 5$ , what is the value of  $x \&lt;\&lt; 2$ ?

a) 5 b) 10 c) 20 d) 25 Answer: c) 20 The left shift operator effectively performs.

a) Division by 2 b) Multiplication by 2 c) Addition by 2 d) Subtraction by 2 Answer: b) Multiplication by 2

- What is the binary representation of  $3 \&lt;\&lt; 2$ ?

a) 0011 b) 1100 c) 0110 d) 1000 Answer: b) 1100 (Binary of 3 is 0011. Shifting left by 2 adds two zeros at the right: 1100)

- What is the output of `printf("%d", 1<<<3);`?

a) 1 b) 2 c) 4 d) 8 Answer: d) 8

Right Shift Operator (`>>`)

- What is the result of `16 >> 2`?

a) 2 b) 4 c) 8 d) 16 Answer: b) 4

- If `y = 20`, what is the value of `y >> 1`?

a) 5 b) 10 c) 40 d) 20 Answer: b) 10 The right shift operator effectively performs.

a) Division by 2 b) Multiplication by 2 c) Addition by 2 d) Subtraction by 2 Answer: a) Division by 2

- What is the binary representation of `12 >> 1`?

a) 1100 b) 0110 c) 0011 d) 1000 Answer: b) 0110 (Binary of 12 is 1100. Shifting right by 1 removes the rightmost bit and adds a zero at the left: 0110)

- What will be the output of `printf("%d", 7 >> 1);`?

a) 7 b) 3 c) 1 d) 0 Answer: b) 3 (Binary of 7 is 0111. Shifting right by 1 results in 0011, which is 3 in decimal.)

All responses may include mistakes.

[1] <https://www.sankalandtech.com/Tutorials/C/operators-mcq-c.html>