



Department of Artificial Intelligence and Machine Learning

23CSB201 Object Oriented Programming

Operators - MCQ

1) Which of the following is a relational operator in Java?

- a. +
- b. =
- c. ==
- d. &&

Answer: c

Explanation: The relational operator in Java is used to compare two values. The == operator is used to check if two values are equal or not.

2) Which of the following operators is used to perform addition in Java?

- a. +
- b. -
- c. *
- d. /

Answer: a

Explanation: The + operator is used to perform addition in Java.

3) Which of the following operators is used to perform division in Java?

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- a. %
- b. &
- c. |
- d. /

Answer: d

Explanation: The / operator is used to perform division in Java.

4) Which of the following is a logical operator in Java?

- a. ++
- b. /
- c. &&
- d. =

Answer: c

Explanation: The logical operator in Java is used to perform logical operations such as AND, OR, and NOT. The && operator is used to perform the logical AND operation.

5) Which of the following is a unary operator in Java?

- a. +
- b. /
- c. -
- d. *

Answer: c

Explanation: The unary operator in Java is used to operate on a single operand. The - operator is used to perform negation or change the sign of a value.

6) Which of the following operators has the highest precedence in Java?

- a. +
- b. /
- c. ++
- d. &&

Answer: c

Explanation: The increment operator (++) has the highest precedence in Java.

7) Which of the following operators is used to perform modulo division in Java?

- a. /
- b. %
- c. *
- d. &

Answer: b

Explanation: The % operator is used to perform modulo division in Java.

8) Which of the following operators is used to perform bitwise AND in Java?

- a. &
- b. &&
- c. |
- d. ^

Answer: a

Explanation: The & operator is used to perform bitwise AND in Java.

9) Which of the following operators is used to perform equality comparison in Java?

- a. =
- b. ==
- c. !=
- d. >

Answer: b

Explanation: The == operator is used to perform equality comparison in Java.

10) Which of the following operators is used to perform bitwise OR in Java?

- a. |
- b. ^
- c. &
- d. ||

Answer: a

Explanation: The | operator is used to perform bitwise OR in Java.

11) What is the output of the following code snippet?

```
int i = 0;
while (i < 3) {
    System.out.print(i + " ");
    i++;
}
```

- a. 0 1 2
- b. 1 2 3

- c. 0 1 2 3
- d. Infinite loop

Answer: a

Explanation: The output of the code snippet `int i = 0; while (i < 3) { System.out.print(i + " "); i++; }` is 0 1 2 because the while loop will iterate three times (until i is equal to 3), and on each iteration, it will print the current value of i and increment it by 1.

12) Which of the following is not a valid primitive data type in Java?

- a. int
- b. float
- c. double
- d. string

Answer: d

Explanation: string is not a valid primitive data type in Java. The correct spelling for the string data type is String (capitalized).

13) What is the output of the following code snippet?

```
int x = 5;
int y = 10;
if (x < y) {
    System.out.println("x is less than y");
} else {
    System.out.println("x is greater than or equal to y");
}
```

- a. x is less than y
- b. x is greater than or equal to y
- c. Compilation error
- d. Runtime error

Answer: a

Explanation: The output of the code snippet `int x = 5; int y = 10; if (x < y) { System.out.println("x is less than y"); } else { System.out.println("x is greater than or equal to y"); }` is x is less than y because x is less than y, so the if block is executed and prints the corresponding message.

14) Which of the following operators is used to perform decrement in Java?

- a. --
- b. +
- c. *
- d. &

Answer: a

Explanation: The decrement operator (--) is used to decrease the value of a variable by 1 in Java.

15) Which of the following operators is used to perform logical OR in Java?

- a. &
- b. &&
- c. |
- d. ^

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Answer: c

Explanation: The | operator is used to perform logical OR in Java.

16) What is the output of the following code snippet?

```
int a = 5;
int b = 2;
int c = a / b;
System.out.println(c);
```

- a. 2
- b. 2.5
- c. 3
- d. Compilation error

Answer: a

Explanation: The output of the code snippet `int a = 5; int b = 2; int c = a / b; System.out.println(c);` is 2 because integer division is performed, which truncates the decimal part.

17) Which of the following operators is used to perform left shift in Java?

- a. <<
- b. >>
- c. &
- d. |

Answer: a

Explanation: The << operator is used to perform left shift in Java.

18) Which of the following is not a valid identifier in Java?

- a. \$test
- b. _test
- c. 123test
- d. test123

Answer: c

Explanation: Identifiers in Java cannot start with a digit. Therefore, 123test is not a valid identifier.

19) Which of the following is a conditional operator in Java?

- a. =
- b. *
- c. +
- d. ?

Answer: d

Explanation: The conditional operator (also known as ternary operator) in Java is represented by the ? symbol. It is used to evaluate a boolean expression and return one of two values based on the result.

20) What is the output of the following code snippet?

```
int x = 10;
int y = 20;
int z = x++ + ++y;
System.out.println(z);
```

- a. 31
- b. 32
- c. 33
- d. 34

Answer: c

Explanation: The output of the code snippet `int x = 10; int y = 20; int z = x++ + ++y; System.out.println(z);` is 33. The value of z is computed as 10 + 21 (x++ returns the original value of x, while ++y increments y before its value is used in the expression).

21) Which of the following is a unary logical operator in Java?

- a. !
- b. &
- c. |
- d. ^

Answer: a

Explanation: The ! operator is a unary logical operator in Java. It is used to perform the logical NOT operation.

22) What is the output of the following code snippet?

```
int i = 0;
do {
    System.out.print(i + " ");
    i++;
} while (i < 3);
```

- a. 0 1 2
- b. 1 2 3
- c. 0 1 2 3
- d. Infinite loop

Answer: a

Explanation: The output of the code snippet `int i = 0; do { System.out.print(i + " "); i++; } while (i < 3);` is 0 1 2 because the do-while loop will iterate three times (until i is equal to 3), and on each iteration, it will print the current value of i and increment it by 1.

23) Which of the following operators is used to perform bitwise XOR in Java?

- a. ^
- b. |
- c. &
- d. ~

Answer: a

Explanation: The ^ operator is used to perform bitwise XOR (exclusive OR) in Java. It returns a 1 in each bit position where the corresponding bits of either but not both operands are 1.

24) What is the output of the following code snippet?

```
int a = 5;
int b = 7;
System.out.println((a > b) ? "a is greater than b" : "a is less than or equal to b");
```

- a. a is greater than b
- b. a is less than or equal to b
- c. Compilation error
- d. Runtime error

Answer: b

Explanation: The output of the code snippet `int a = 5; int b = 7; System.out.println((a > b) ? "a is greater than b" : "a is less than or equal to b");` is a is less than or equal to b

because the expression $(a > b)$ is false, so the second option in the ternary operator is executed.