

Operators and Loops Assignment

1. What are the conditional operators in Java?

→ In Java, the conditional operator is also called the ternary operator; because it takes three operands.

Condition ? Value If True : Value If False.

Example

```
int x = 10;
```

```
int y = 20;
```

```
int max = (x > y) ? x : y;
```

2. What are types of operators based on the number of operands?

→ • Unary operators: These operators take a single operand. Examples include the negation operators ($-x$), the increment operators ($++x$) and the logical NOT operators ($!x$).

Ex →

```
int x=10;  
int y=-x;
```

- **Binary operators:** These operators take two operands. Examples include the addition operator $(x+y)$, the subtraction operator $(x-y)$; the multiplication operator $(x*y)$, and the division operator (x/y) .

Ex → `int sum = n+y;`

- **Ternary operators:** This operator takes three operands. In Java, this is the conditional operator, also known as the ternary operator. It takes the form of 'condition ? value if True : value if False'.

Ex → `int max = (n > y) ? n : y;`

3. What is the use of switch case in Java programming?

→ The switch case in Java is used to select one of many code blocks for execution.

Break keyword: As java reaches a break keyword, the control breaks out of the switch block. The execution of code stops on encountering this keyword, and the case testing inside the block ends as

the match is found.

4. What are the priority levels of arithmetic operation in Java?

→ In Java, parenthesis () and Array subscript [] have the highest precedence in Java. For example, Addition and subtraction have higher precedence than the left shift and Right Shift operators.

5. What are the conditional statements and Use of conditional statements in Java?

→ Java has the following conditional statements. Use if to specify a block of code to be executed, if the same block condition is false. Use else if to specify a new condition to test, if the first condition is false.

6. What is the syntax of if else statement

→ An if statement can be followed by an optional else statement, which executes when the Boolean expression is false

Syntax

Following is the syntax of an if...else statement-

```
if (Boolean Expression) {  
    // code  
}
```

else {

//code

}

7. What are the conditional 3 types of iterative statements in Java?

→ The java programming language provides, a set of iterative statements that are used to execute a statement or a block of statements repeatedly as long as the given condition is true. The iterative statements are also known as looping statements or repetitive statements. Java provides the following iterative statements.

* While statement

* do-while statement

* For statement.

8. Write the difference between for loop and do-while loop?

→ For loop

• The Java for loop is a control flow statement that iterates a part of the program multiple times.

Do while loop

• The Java do while loop is a control flow statement that executes a part of the programs at least once and the further execution depends upon the given boolean condition.

- If the number of iteration is fixed, it is recommended to use for loop
 - If the number of iteration is not fixed and you must have to execute the loop at least once, it is recommended to use the do while loop.
- | | |
|--|--|
| <pre>for (init; condition; inc/decr) {
 // code
}</pre> | <pre>do {
 // code
} while (condition);</pre> |
|--|--|

9. Write a program to print numbers from 1 to 10.

→ Public class

{

Public static void main (String[] args)

{

For (int i = 1; i <= 10; i++)

{

System.out.println(i);

}

}

}