**1) What are the conditional Operators in java?**

In Java, the conditional operators are used to evaluate a boolean expression and perform different actions based on the result. The following are the conditional operators in Java:

**&& (and operator)** - returns true if both operands are true, and false otherwise.

**|| (or operator)** - returns true if either operand is true, and false otherwise.

**! (not operator)** - returns true if the operand is false, and false if the operand is true.

**2) What are the Types of Operators Based on the Number of Operands?**

Operators in Java can be categorized based on the number of operands they take:

**Unary Operators**: Operate on a single operand. (e.g. unary minus operator (-), increment/decrement operator (++/--))

**Binary Operators**: Operate on two operands. (e.g. arithmetic operators (+,-,\*,/), relational operators (==, !=, >, <, >=, <=))

**Ternary Operators**: Operate on three operands. (e.g. conditional operator (?:))

**3) What is the use of switch Case in java Programming?**

The switch case is a control statement in Java used to perform different actions based on different conditions. It is used as an alternative to if-else statements when multiple conditions need to be evaluated. The switch case statement tests the value of an expression against a set of cases and executes the corresponding block of code. The expression must evaluate to an int, short, char, or byte value. The switch case provides a clean and readable way of handling multiple conditional branches in your code.

**Example:**

**code**

int day = 3;

switch (day) {

case 1:

System.out.println("Monday");

break;

case 2:

System.out.println("Tuesday");

break;

case 3:

System.out.println("Wednesday");

break;

default:

System.out.println("Invalid Day");

}

**The output of the above code would be Wednesday**.

**4) What are the priority levels of Arithmetic operations in java ?**

The priority levels of arithmetic operations in Java are the order in which the operations are performed when evaluating an expression. The following table shows the priority levels of arithmetic operations from highest to lowest:

1) Parentheses ( )

2) Unary operations (e.g. ++, --, +, -, !)

3) Exponentiation (e.g. Math.pow())

4) Multiplication, Division, and Modulus (\*, /, %)

5) Addition and Subtraction (+, -)

It is important to use parentheses in your expressions to ensure that the correct order of operations is followed and to avoid unexpected results.

**5) What are the conditional statements and use of conditional statements in java ?**

Conditional statements are control structures in java programming that allow execution of different blocks of code based on a certain condition. They include if-else, switch-case and ternary operator. They are used to perform actions depending on certain conditions, for example checking if a certain input value is positive or negative, and executing different actions based on the result. They help make the program more dynamic and adaptable to changing inputs and conditions.

**6) What is the Syntax of if else statement in java ?**

The syntax for an if-else statement in Java is as follows:

**code**

if (condition) {

// code to be executed if the condition is true

} else {

// code to be executed if the condition is false

}

The condition is an expression that is evaluated as either true or false, and the code inside the corresponding block (either if or else) is executed based on the evaluation result.

**7) What are the 3 types of iterative statements in java ?**

There are 3 types of iterative statements in Java:

**For Loop:** It executes a block of code for a specified number of times. The number of iterations can be controlled by a counter variable.

**While Loop:** It executes a block of code repeatedly as long as the condition is true.

**Do-While Loop:** It is similar to the while loop, but it executes the code at least once, and then it checks the condition.

**8) Write the Difference between for loop and a do-While loop in java ?**

The difference between for loop and do-while loop in Java are:

For loop is executed a specific number of times, while do-while loop is executed at least once and then repeatedly as long as the condition is true.

The initialization, condition, and increment/decrement expression of for loop are written in a single line, while in do-while loop, the condition is written at the end of the loop.

For loop checks the condition before entering the loop, while do-while loop checks the condition after executing the loop body.

In conclusion, for loop is used when the number of iterations is known, while do-while loop is used when the number of

iterations is unknown, but the code needs to be executed at least once.

**9) Write a program to print numbers from 1 to 100 in java ?**

**Code :**

public class Main {

public static void main(String[] args) {

for (int i = 1; i <= 100; i++) {

System.out.println(i);

}

}

}