Operators and Loops

Q1) What are the Conditional operators in Java?

Ans) The Conditional operators in Java are used to make decisions based on the outcome of a Comparison.

i) **Ternary operator (?:)** -
it is used to assign one of two values to a variable based on a Boolean expression.

Variable = (Condition) ? Expression True : Exp. False;

Eg - int a = 10 ; int b = 20 ;   output
int res = (a>b) ? a : b ; =>   b.

2) **AND (&&)**
it used to perform Comparison between two Boolean Expressions. Only if both exp. are true, result is true, otherwise false.

3) **OR (||)**
perform Comparison between two boolean expressions, if either exp evaluates to true, the result is true, otherwise the result is false.

Q2) What are the types of operators based on number of operands?

Ans) Unary → takes only one operands
Binary → takes two operands
Ternary → takes three operands.

Q3) What is the use of Switch Case?.

Ans) The switch statement executes one statement from multiple conditions. It is like if-else-if ladder. It is particularly useful when you have a variable with a finite set of values.

```
Switch (Exp) {
    Case value 1:
        // body
        break;
    Case Value 2:  // body    break;
    default:   // body
}
```

Q4) What are the priority level of arithmetic operation?

Ans) In Order of descending precedence.
1) Postfix increment   (i++)
2) Postfix decrement   (i--)
3) Prefix increment   (++i)
4) Prefix decrement   (--i)
5) Unary plus   (+i) -) i = +i
6) Unary Minus   (-i)
7) Multiplication   *
8) Division   /
9) Modulus   %
10) Addition   +
11) Subtraction   -

Q5) What are Conditional statement ~~and~~ and use of Conditional statement?

Ans) Conditional statements are used in Java to execute different blocks of Code based on whether a particular condition is true or false. There are two types of Conditional statement in Java.

i) if else statement
ii) Switch statement.

Q6) What is the syntax of if else statement?

Ans) Syntax

```
if (Condition){
        // body
}
else if (Condition)
    {
    // body
    }
else
    {
    // body
    }
```

Q7) what are 3 types of iterative statement?

Ans)
i) for loop
ii) while loop
iii) do - while loop.

Q8) Difference between for loop & do-while loop?

Ans) The main difference between for & do while loop is that 'for' loop is a pre-test loop, which means, condition is checked before the loop body is executed, while 'do-while' loop is post test loop, means body is executed first & then the loop condition is checked.

Q9) Write a program to print number from 1 to 10.

Ans)
```java
public class PrintNumber {

    public static void main (String[] args) {

        for (int i = 1; i <= 10; i++)
        {
            System.out.println (i);
        }
    }
}
```