(1) what are the conditional operators in java?

⟹ Conditional operators means logical operators are used to provide logics to programme.

(1) AND logical (&&)

In this if any condition is false then it returns false. If both conditions are true then it returns true.

(2) OR logical (||)

In this atleast one condition is true then it returns true.

(3) Not logical (!)

It reverse the result means if condition is true then it returns false and condition is false then it returns true.

(2) what are the types of operators based on the number of operands?

⟹ Arithmetic operators are used to perform mathematical operations. These operators can not work with boolean and (%) operator can work with float/double. (*, /, -, %, +)

(3) switch case is used when we have to make a choice between number of alternatives for a given variable and variable can be integer, character or string.

(4) operators are evaluated and applied based on precedence for example (+, -) has less precedence in comparison to (*, /), (*, /) evaluated first

In case we want to change the order then we use parenthises. If any expression (*, /) both are present then we use Associativity. Associativity tells the direction of execution of operators. It can either be left to right or right to left.

(*, /) ⟹ left to right

(+, -) ⟹ left to right

(++, =) ⟹ Right to left

(5) programmes takes decision with the help of conditional statements. It is used to check the condition ~~where~~ wheather condition is true or false. Three types of conditional statements.

(1) if else

(2) Nested if else

(3) Switch case

⟹ if else :- when we have single condition to check.

⟹ Nested if else :- when we have multiple condition to check.

(6) The syntax of if else statement :-

```
if (check condition) {
        //statement;
}
else {
        //statement; }
```

If the condition is true then it execute if block code and condition is false then it execute else block code.

(7) Three types of iterative statements or loops :-

⭐ Loop →

Loop make it easy for us to tell the computer that a given set of instructions need to be executed repeatedly. In short loop is a repeated block of code. Three types of loops:

(1) while loop
(2) do while loop
(3) for loop

⭐ while loop →

```
while (condition) {
    //statement
}
```

→ "gets executed as long as the condition is true." If condition never becomes false executed continuously, such loop is known as infinite loop. first Ct check the condition then execute the code. We use this when the exact no: of iteration is unknown.

⭐ do-while loop →

```
do {
    //statement
} while (condition);
```

→ do while loop similar as while loop except that it execute atleast one time block t execute the code then check the condition. need to execute a code atleast once.

⭐ for loop →

```
for (initialize value; check condition; update) {
    //statement
}
```

→ for loop are usually used to execute a piece of code for specific number of times.

☆ Break Statement ⟹

Break statement is used to exit the loop whether condition is true or false

☆ Continue Statement ⟹

Continue statement is used to forcefully immediately move to the next iteration of the loop. It skip the particular iteration of loop. It skip everything below of continue.