

↳ Bitwise operators:- These operators are used to perform bit operations. Decimal values are converted into binary values which are the sequence of bits and bitwise operators work on these bits.

- Bitwise operators are & (bitwise AND), | (bitwise OR), ~ (bitwise NOT), ^ (XOR), << (left shift) and >> (right shift)

$$x = x \ll 1, x = x \gg 1, x = x^{\wedge} 1, x = \sim x, x = x / y$$
$$x = x \& y$$

operators

example.

& → AND

$x = 5 \& 1$

| → OR

$x = 5 | 1$

$\sim \rightarrow$ NOT

$x = \sim 5$

$\wedge \rightarrow$ XOR

$x = 5 \wedge 1$

$\ll \rightarrow$ LeftShift

$x = 5 \ll 1$

$\gg \rightarrow$ RightShift

$x = 5 \gg 1$

Ternary operators:-

The ternary operator is an operator that exists in some programming languages, which takes three operands rather than the typical one or two that most operators use. It provides a way to shorten a simple if else block.

The ternary operators take three arguments

- 1) The first is a comparison argument
- 2) The second is the result upon a true comparison
- 3) The third is the result upon a false comparison

condition ? value_if_true : value_if_false

Example for Ternary operators:-

```
int x=20, y=10;
```

```
vars result = x>y ? x:y;
```

output:- 20.

Program to display sum, difference, multiplication, division and module of two numbers:

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
int a, b, A, B, C, D, E;
```

```
printf("Enter the value of a");
```

```
printf("Enter the value of b");
```

```
scanf("%d %d", &a, &b);
```

```
A=a+b;
```

```
B=a-b;
```

```
C=a*b;
```

```
 $O = a + b;$ 
 $E = a \cdot b;$ 
printf("sum of a and b is .1.d", A);
printf("difference of a and b is .1.d", B);
printf("multiplication of a and b is .1.d", C);
printf("division of a and b is .1.d", D);
printf("module of a and b is .1.d", E);
return 0;
}
```