

## ASSIGNMENT: OPERATORS

### BITWISE OPERATOR:

Bitwise operators are special operator set provided by 'C. ' They are used in bit level programming. These operators are used to manipulate bits of an integer expression. Logical, shift and complement are three types of bitwise operators.

A bitwise operator is an operator used to perform bitwise operations on bit patterns or binary numerals that involve the manipulation of individual bits. Bitwise operations performed on bit flags, which can enable an instance of enumeration type to store any combination of values defined in an enumerator list.

### EXAMPLE:

12 = 00001100 (In Binary)

25 = 00011001 (In Binary)

Bit Operation of 12 and 25

00001100

& 00011001

—————

00001000 = 8 (In decimal)

```
#include <stdio.h>
int main()
{
    int a = 12, b = 25;
    printf("Output = %d", a&b);
    return 0;
}
```

OUTPUT: 8

### TERNARY OPERATOR:

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.

#### SYNTAX:

condition ? value\_if\_true : value\_if\_false

#### EXAMPLE:

```
int a=10, b=20, c;
```

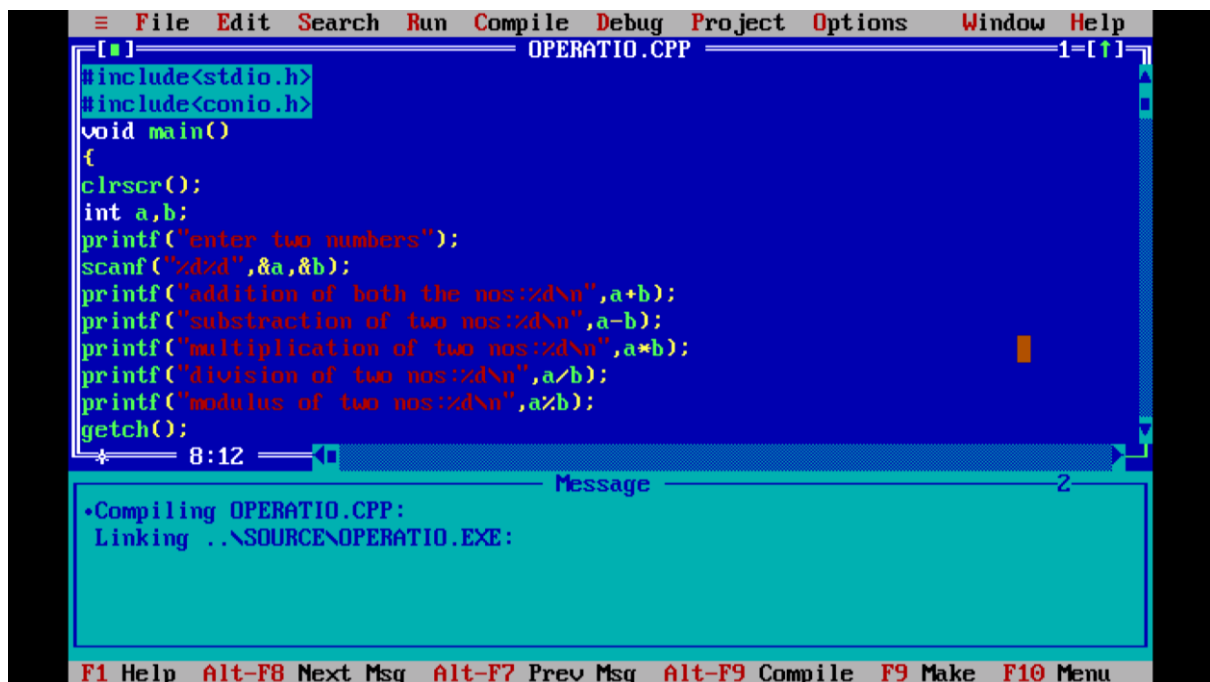
```
c=(a < b) ? a : b;
```

```
printf("%d",c);
```

#### OUTPUT:

10

#### C CODE:



The screenshot shows a Turbo C++ IDE window titled 'OPERATIO.CPP'. The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
    clrscr();
    int a,b;
    printf("enter two numbers");
    scanf("%d%d",&a,&b);
    printf("addition of both the nos:::d\n",a+b);
    printf("substraction of two nos:::d\n",a-b);
    printf("multiplication of two nos:::d\n",a*b);
    printf("division of two nos:::d\n",a/b);
    printf("modulus of two nos:::d\n",a%b);
    getch();
}
```

The status bar at the bottom shows '8:12' and a 'Message' window. The message window displays the following output:

```
•Compiling OPERATIO.CPP:
Linking ..\SOURCE\OPERATIO.EXE:
```

The bottom status bar includes function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

The screenshot shows the Turbo C++ IDE interface. The top menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The main editor window displays the source code for OPERATIO.CPP, which is a C program for performing arithmetic operations on two numbers. The code includes clrscr(), scanf(), printf(), and getch(). The status bar at the bottom shows the file name OPERATIO.CPP, the line number 17, and the column number 12. A message window at the bottom displays the compilation and linking process.

```
File Edit Search Run Compile Debug Project Options Window Help
[ ] OPERATIO.CPP 1=[ ]
{
clrscr();
int a,b;
printf("enter two numbers");
scanf("%d%d",&a,&b);
printf("addition of both the nos:%d\n",a+b);
printf("substraction of two nos:%d\n",a-b);
printf("multiplication of two nos:%d\n",a*b);
printf("division of two nos:%d\n",a/b);
printf("modulus of two nos:%d\n",a%b);
getch();
}
17:12
Message
•Compiling OPERATIO.CPP:
Linking ..\SOURCE\OPERATIO.EXE:
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
```

OUTPUT:

The screenshot shows the output of the program. It prompts the user to enter two numbers, 7 and 8. The program then displays the results of various arithmetic operations: addition (15), subtraction (-1), multiplication (56), division (0), and modulus (7). The output is displayed on a black background with white text.

```
enter two numbers 7 8
addition of both the nos:15
substraction of two nos:-1
multiplication of two nos:56
division of two nos:0
modulus of two nos:7
-
```