

## **printf():**

It is the major output function in C.

It is used to print the given text on the monitor [ standard output device ]

It is a predefined function available in standard input output header file.

In printf, f means formatted.

## **Syntax:**

```
int printf(“ [text] [conversion characters / format specifiers ]”  
[ , variables ] [ , expressions ] );
```

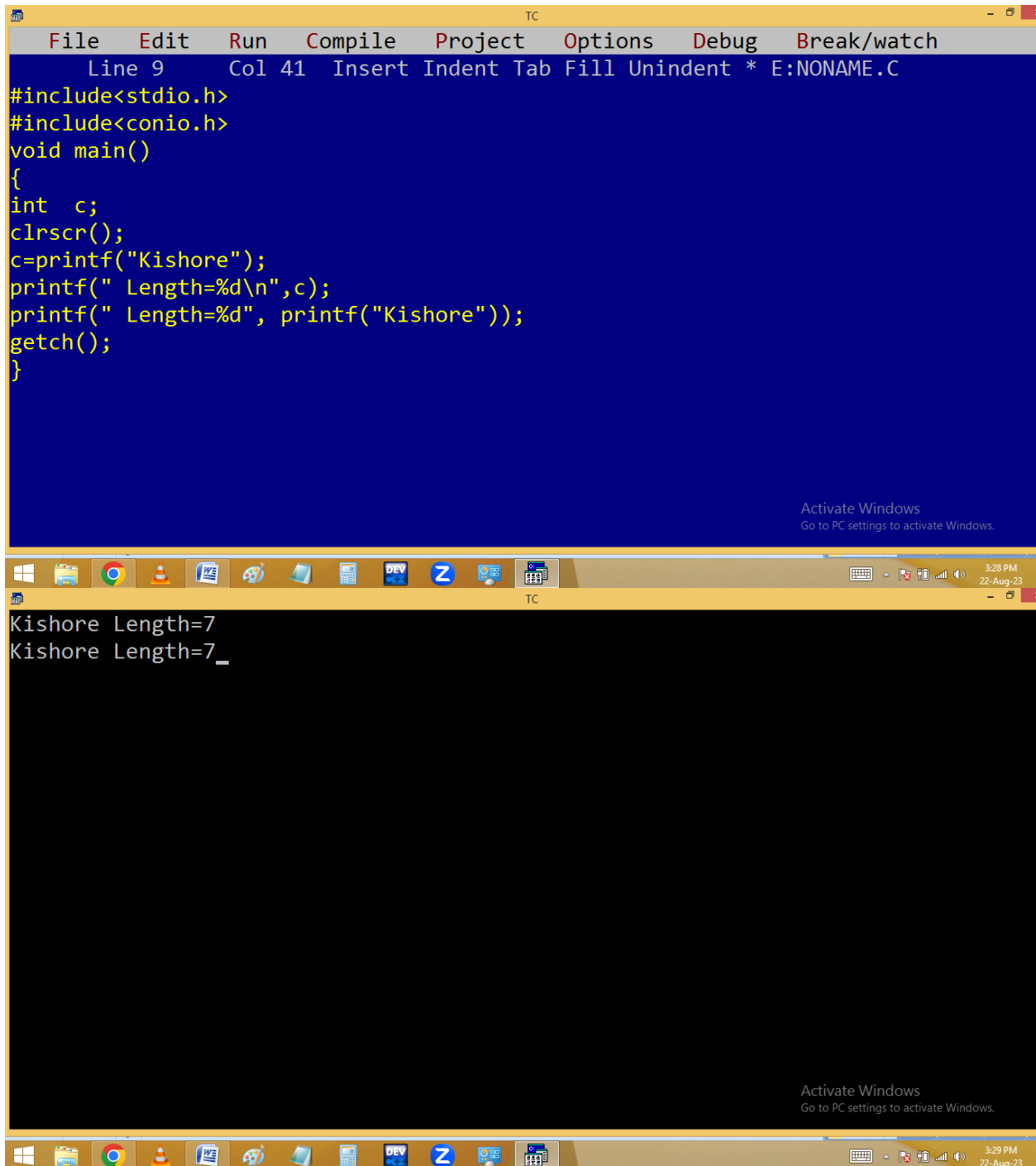
## **Note:**

1. In printf the first argument should be in “ ”.
2. In printf execution order is right to left and printing is left to right.
3. In printf everything printed as it is except conversion characters and back slash characters.
4. Printf returns int that indicates the no of visible characters
5. Printf can perform both formatted and unformatted outputs.

printf(“Hi”); ➔ Hi ⬅ unformatted

printf(“%d”,10); ➔ 10 ⬅ formatted

**Eg. Write a C program to find string length without using strlen() or a loop.**



The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the source code of a C program. The code includes `<stdio.h>` and `<conio.h>`, and defines a `main` function. Inside `main`, it declares an integer `c`, clears the screen with `clrscr()`, and prints the string "Kishore" using `printf`. It then prints the length of the string stored in `c` using `printf`. Finally, it calls `getch()` to wait for a key press before exiting.

```
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 41 Insert Indent Tab Fill Unindent * E:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int c;
clrscr();
c=printf("Kishore");
printf(" Length=%d\n",c);
printf(" Length=%d", printf("Kishore"));
getch();
}
```

The bottom window shows the output of the program. It displays "Kishore Length=7" on the first line and "Kishore Length=7\_" on the second line, where the underscore indicates the cursor position after the output.

```
Kishore Length=7
Kishore Length=7_
```

The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays a C program with the following code:

```
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 16 Insert Indent Tab Fill Unindent * E:NONAME.C
#include<stdio.h>
void main()
{
int a=10;
float b=1.2;
printf("Hi\n");
printf("a=\n",a);
printf("a=%d\n",a);
printf("a=%d, b=%f\n",a,b);
printf("Sum=%f\n",a+b);
printf("a=%d, b=%f, sum=%f\n",a,b,a+b);
printf("%d + %f = %f\n", a, b, a+b);
printf("%d",a);
}
```

The bottom window shows the output of the program:

```
Hi
a=
a=10
a=10, b=1.200000
Sum=11.200000
a=10, b=1.200000, sum=11.200000
10 + 1.200000 = 11.200000
10_
```

Both windows include a taskbar at the bottom with various application icons and a system tray showing the time as 3:43 PM on 22-Aug-23. An "Activate Windows" watermark is visible in the bottom right corner of both windows.

**F2 – Save**

**Alt+F9 – Compile**

**Ctrl+F9 – Run**

**Alt+F5 - Output**