INPUT & OUTPUT STATEMENT IN C:-

INPUT:- accept input values to the program from standard input device.

OUTPUT:- Data produced by the program to a standard output device

I/O FN:-

Print() → display information required by the user and also prints the values of the variables.

→ It takes data values, converts them to a text stream using formatting functions specified in a control string & passes the resulting text stream to the standard output.

SYNTAX:-

    printf ("ctrl string", variable - lists);

eg:-

    printf ("%d", a);

where control string is any of the following

a) format code character

b) Execution character set or Escape sequence

c) characters / string that will be displayed

RULES:-

place appropriate headings in the output

The variable must be separated by commas, and need not be preceded with `&` sign.

The control string and the variables must match in their order.

The control string must be in quotations and there we can also use any other text to Print with data.

Provide blank space in between the numbers

Print special message, wherever occurs in output.

SCANF()

* It stands for scan formatting & is used to read formatted data from the keyboard.

* Scanf function takes text stream from the keyboard, extracts & formats data from the stream according to a format control string & then stores the data in a specified program variable.

SYNTAX:-

Scanf ("ctrl string", &arg1, &arg2.... &argn;

eg:-
Scanf ("%d %f", &a, &salary);

RULES:-

* The control string must be preceded with (:) sign and must be with in Quotations.

* If there is a number of input data items, must be separated by commas and must be preceded with (&) sign except for string input.

* The control string and the variables going to input should match with each other.

* It must have termination with semicolon.

* The scanf() reads the data values until the blank space in numeric input or maximum number of character have been read, or an error is detected.

EXAMPLE:-

Reading & printing data via Terminals using scanf() and printf() statements

```c
#include <stdio.h>
main()
{
    int Sno, m1, m2, m3;
    char name[20];
    float total, avg;
    printf(" Enter Sno, sname, 3 Sub marks");
    scanf("%d %s %d %d %d", &Sno, name, &m1, &m2, &m3);

    total = m1 + m2 + m3;

    avg = total/3

    printf("Sno..... %d", Sno);
    printf("Name..... %d", name);
```

```c
printf("marks.... %d\t %d\t %d\t", m1, m2, m3);
printf(" Total.... %f", total);
printf(" Average.... %f", avg);
}
```

OUTPUT:-

```
Enter sno, sname, 3 sub marks
   1     Raghu    90    95  98
Sno.... 1

Name... Raghu

Marks.... 90   95   98

Total.... 264.000000

Average.... 94.333336.
```