RECURSION :

A function calling itself again and again to compute a value is referred to recursive function or recursion. Normally a function is called by the main program or by some other function but in recursion the same function is called by itself repeatedly. Consider the following example to find factorial of an integer by recursion.

```
int fact (int k)
{
  if (k == 0 )
      return(1);
else
    return( k * fact(k-1));
```

[**Recursion** is a programming technique based on functions calling themselves repeatedly.]

Use of Recursive Function:

1. Recursive functions are written with less number of statements compared functions.
2. Recursion is effective where terms are generated successively to compute a value.

3. Recursion is useful for branching processes. Recursion helps to create short code that would otherwise be impossible.

Local or Internal Variables:

Variables declared inside the body of a functions or main program are referred as local variables. These variables are active in the block in which they are declared.

Global or External Variables:

Variables declared outside the body of the main program are referred as global variables. These variables are commonly available for the main program and functions and are active throughout C program.

void FUNCTION:

A function which does not return a value directly to the calking program is referred as a **void** function.

The **void** functions are commonly used to perform a task and they can return many values through global variable declaration. It is declared with the keyword **void** instead of the data type of the function.