Pointers and functions

Pointers are often passed to a function as arguments.

- ➔ Allows data items within the calling program to be accessed by the function, altered, and then returned to the calling program in altered form.
- ➔ Called call-by-reference (or by address or by location).

Normally, arguments are passed to a function by value.

- ➔ The data items are copied to the function.
- ➔ Changes are not reflected in the calling program.

In C, like normal data pointers (int *, char *, etc), we can have pointers to functions. Following is a simple example that shows declaration and function call using function pointer.

```
#include<stdio.h>
        void  main()
         {
                int a, b;
                a = 5;
                b = 20;
                swap (&a, &b);
                printf ("\n a=%d, b=%d", a, b);
        }
        void swap (int *x, int *y)
        {
                int t;
                t = *x;
                *x = *y;
                *y = t;
        }
```