

and prepare them for execution. Compilers and assemblers convert the entire **source program** into **object program**, which is the **machine language** equivalent of the source program.

The object program has to be linked to the CPU; that is, it must be assigned main memory space so that it can run. Any special routines that the program needs must also be linked to it. The linkage editor performs this task.

A program that uses an interpreter does not normally need a linkage editor.

## 5-2 Utility Software

Utility is a system software program that performs many helpful functions. It is used to enhance the functionality of an operating system.

Utility software covers wide range of programs. Some examples: Data compression and Decompression, backup utilities, anti-virus programs, retrieving files that had been deleted, screen savers,..

### CHAPTER SELF-TEST

1. *(T or F) To carry out multiprocessing, a computer system must have two or more CPUs.*
2. *Both Windows and Macintosh use \_\_\_\_\_, which are symbols representing various objects or functions.*
3. *(T or F) Windows are operating systems for IBM PCs and its compatible.*
4. *(T or F) UNIX is an operating system that can't run on a wide variety of computers.*
5. *The \_\_\_\_\_ is the part of operating system that allocates computer resources.*
6. *\_\_\_\_\_permits to run more than one task (program) at the same time.*

*Solutions:*

1. *T*
2. *Icons*
3. *T*
4. *F*
5. *Kernel*
6. *Multitasking.*