

# Appendix B

## Hardware Overview

### **Introduction to Computers**

**All computers work the same way.**

1. Input information.
2. Information processed.
3. Information stored.
4. Output results.

**Hardware:** physical components of the computer.

**Software:** is a set of detailed instructions, called a program that tell the hardware what operations to perform.

**Data** provide information. Software applications turn raw data into information.

**Central Processing Unit (CPU):** is the brain of the computer and is composed of transistors on a silicon chip. It comprehends and carries out instructions sent to it by a program and directs the activity of the computer.

**Random Access Memory (RAM):** workspace of the computer – temporary (volatile) – useful only while the computer is on.

**Read Only Memory (ROM):** designed to store programs permanently – CPU cannot write, erase, or alter ROM – non-volatile – information stored on ROM is not lost when the computer is turned off. ROM often controls the start up routines of the computer.

**Cache Memory:** a place in memory where data can be stored for quick access.

**Peripheral Devices:** any device, such as a keyboard, monitor or printer that is connected and controlled by the CPU.

**Input Devices:** a means to get information into RAM by communicating with the computer. Typical input devices include: keyboard, mouse, trackball, scanner, glide pad, light pen.

**Output Devices:** where information is written and can be seen. Typical output devices are: monitor, printer.

**Operating System Software:** engine of the computer – programs that make the computer itself work – coordinates the operations of hardware components – runs the applications software. Examples are Windows XP, Windows 2000, Windows 98, MS-DOS.

**Application Software:** programs that enable you to complete specific tasks. Application software solves problems and handles information. Examples are MS-Word, Quicken, dBase, Lotus 1-2-3, and Harvard Graphics.

**Disks and Disk Drives:** are magnetic media that store data and programs in the form of magnetic impulses. Such media include:

1. Floppy disks
2. Hard disks
3. CD ROM's
4. Zip or Jaz Drives
5. DVDs
6. Tape cartridges

## **2 Kinds of Networks:**

1. **Local Area Network (LAN):** encompasses a small area such as one office.
2. **Wide Area Network (WAN):** connects computers over a much larger area such as from building to building, state to state, or even worldwide.