COMP-514 Assignment-1

1. Input Hardware

# Input hardware consists of devices that allow people to put data into the computer in a form that the computer can use. Input is by means of keyboard, pointing (mouse, trackball, joystick), scanning (fax machine, image scanner), and voice-recognition devices.

Output Hardware

Output hardware consists of devices that translate information processed by the computer into a form that humans can understand.

As a microcomputer user, you will be dealing with three principal forms of output- screen display, printed, and sound.

1. The Process of CPU Fan

Modern CPUs generate a lot of heat and thus require a cooling fan and heat sink assembly in order to run coolly enough not to overheat.

1. Types of things inside System Unit
   * + The power supply
     + The motherboard
     + The CPU chip
     + Specialized processor chips
     + The system clock
     + RAM chips
     + ROM chips
     + Other forms of memory (cache, VRAM, flash)
     + Expansion slots and boards
     + Bus lines
     + Ports
     + PCMCIA slots and cards.(Personal Computer Memory Card Industry Association)
2. Motherboard

The motherboard or system board is the main circuit board in the system unit. All electrical components plug into the motherboard either directly or indirectly. A motherboard contains a number of special sockets that accept various PC components for the microprocessor ; sockets for RAM; sockets for provide power ;connectors for floppy drives and hard drives ; and connectors for external drives, such as mouse, printers, joysticks, and keyboards.

1. Three kinds of Communications devices

Modern

A modem is an electronic device that allows computers to talk to each other over telephone lines. A modem translates the digital signals of the computer into analog signals for transmission over copper telephone wires and then back to digital signals.

Cable

The computers are part of a specially wired small network(a local area network) on a college campus, for example. The connections then would be by all- digital coaxial or fiber-optic cable.

Fax Modem

A fax modem is a modem with fax capability that enables you to send signals directly from your computer to someone else's fax machine or computer fax modem.

1. The two functions of sound card

Sound cards perform two functions.

1) They take digital information and turn it into sound, outputting the sound through speakers.

2) They take sound that is input through a microphone and turn it into digital data.

7. (a) Central Processing Unit(CPU)

In a microcomputer, the CPU (Central Processing Unit) is usually contained on a single integrated circuit or chip called a microprocessor. It controls and manipulates data to produce information. This chip and other components that make it work are mounted on a circuit board called a system board.

Modern CPUs generate a lot of heat and thus require a cooling fan and heat sink assembly in order to run coolly enough not to overheat. A heat sink is a big slab of copper or aluminum that helps draw heat from the processors; the fan then blows the heat out into the case. You can usually remove this cooling device, although some CPU manufactures sell the CPU with permanently attached.

CPU measures potential performance with a clock speed. The first CPU used in PCs had a clock speed of approximately 4.77 MHZ. Today's latest CPUs have clock speeds over 3000 MHZ.

(b) BNC Connectors

It also commonly known as coaxial or coax connectors, are beginning to fade from PC use, but many PCs still have coax connectors. Most new Networks use RJ-45 based cabling, rather than BNC, and many of the older coax Networks are being replaced with RJ-45 Networks.

RJ Connectors

Modern PCs use only two types of RJ jacks: the RJ-11 and the RJ-45. The phone jack is an RJ-1. It is used almost exclusively for modems. The slightly wider RJ-45 is used for one very popular type of Network cabling. Most Network cards have an RJ-45 sockets.