**Hardware Basics**

**The Availability of Digital Devises**

A stationary desktop computer is placed on a desk and runs on power from an electrical wall outlet. It contains the internal nodes of the personal computer and peripheral devices: system unit; keyboard; mouse; display system; hard disk drive; optical drive; removable storage; sound system; network and Internet access; printer.

A portable computer is a small, lightweight personal computer with input, output, storage, and processing components integrated into a single unit that runs on power supplied by an electrical outlet or battery.

Types of portable personal computers:an enhanced media player; a smartphone; a tablet computer; laptops or notebooks; netbooks.

Computers that operate in essentially the same way and use the same software are said to be compatible or having the same platform.

RAM or dynamic RAM, is a temporary holding area for data, application program instructions, and the operating system RAM holds raw data waiting to be processed, the program instructions for processing that data, the results of processing until they can be stored more permanently.

ROM (read-only memory) is a permanent and non-volatile. The contents of ROM are “hard-wired” in the circuitry and remain in place even when the computer power is turned off.

CMOS Memory. To operate correctly, a computer must have some basic information about storage, memory, and display configurations. The information is held in CMOS, a type of chip that requires very little power to hold data.

A data storage system has two main components: a storage medium and a storage device. The term «storage technology» refers to a storage device and the media it uses.

A storage medium is the disk, tape, CD, DVD, paper, or other substance that contains data. A storage device is the mechanical apparatus the records and retrieves data from a storage medium. Storage devices are compared using such criteria as versatility, durability, speed, and capacity.

There are 3 types storage technology, such as optical storage technology, solid state storage and optical storage technology.

Magnetic storage technology. Magnetic storage stores data by magnetizing microscopic particles on a disk or tape surface.

Optical storage technology. CD and DVD technologies are classified as optical storage, which stores data as microscopic light and dark spots on the disc surface.

Solid state storage or flash memory is a technology that stores data in erasable, rewritable circuitry, rather than on spinning disks. Solid state storage is durable, removable and provides fairy fast access to data because it includes no moving parts.

**Hardware Security**

For trouble-free computer use, it is important to secure and regularly maintain your computer equipment. Computers are prime target for thieves. You may …use some important trips for protection your portable computer from theft.

* Never leave your portable computer unattended, especially when you at a coffee shop, the library or the airport.
* If you have to leave your portable computer in your car, never leave it in plain view. Lock it up in the trunk or cover it up.
* Carry your portable computer in an inconspicuous carrying case.
* Record your portable computer’s make, model, and serial number and store them away from the computer.
* Consider securing your portable computer with an anti-theft device.

A good computer maintenance routine:

* Delete your browser’s history and cache files on monthly basis in order to free up space for your temporary files. The free space results in faster downloads from the Internet.
* Apply the latest system, drivers, and security updates.
* Scan your computer for viruses and spyware once a week.
* To solve many hardware problems follow the basic guidelines for troubleshooting:
* Write down all error messages and any other information that gores with them.
* Make sure all components are plugged in and that are no loose cables.
* Look for troubleshooting and repair tips on user manual, on your vendor’s Web site, or even through a search engine.
* Run your antispyware and antivirus software.

**The issue of E-Waste**

In the West African nation of Ghana, a lot of discarded computers and monitors can be seen in a river, polluted beyond recovery. Teenage boys play soccer in a toxic haze. When their break is over, they get back to work smashing monitors.

It is called ewaste, e-garbage, or technotrash – all the unwanted and outdated computers, monitors, printers, cell phones, disk drivers, disks, CDs, and DVDs

Ewaste is a global problem.