**MIS 105 LECTURE 2**

**CHAPTER REFERENCE – CHAPTER 1 contd.**

**Lecture Topic**

**Types of computers**

**KEYWORDS**

* **Personal Computer (PC)** – is a computer that can perform all of its input, processing, output and storage activities by itself. It generally contains a processor, memory and one or more input, output and storage devices. A personal computer can have more than one user. There are two types of personal computers – desktop computers and mobile computers.
* **Desktop Computer** – is designed so that the CPU, input, output and any other devices fit entirely on or under a desk or table. On a desktop computer, the hardware is usually separately connected.
* **Mobile computer/Laptop computer** – is designed so that the CPU, input, output and any other devices fit entirely in one unit. In a mobile/laptop computer every piece of hardware is connected internally and it is ONE unit.
* **Mobile Devices/PDA** – Personal Digital Assistants are computer devices that are hand-held, i.e. they are miniature computers that fit in the user’s hand. They almost always have no permanent storage. All data is stored in special memory inside the CPU or in small storage media such as memory cards.
* **Workstation** – is a personal computer that is far more powerful than what is required for normal use. Workstations can support other computers by providing storage and processing assistance. A workstation can be the size of a desktop computer or it can take up a whole room depending on its specifications. Workstations are often referred to as SERVERS.
* **Midrange Server** – is a computer system that is more powerful and larger than a workstation computer. Midrange Servers typically support several hundred and sometimes up to a few thousand connected computers at the same time. They store data and programs and in many cases, one server accesses data on another server. People also use personal computer or terminals to access programs on a server.
* **Terminal** – a terminal is a device with a monitor, keyboard and memory. It generally has no storage or processing capacity. A terminal must be connected to a server for processing. Example of a terminal – WebTV.
* **Mainframe** – is a large, expensive, and powerful computer than can handle hundreds or thousands of connected users simultaneously. They store tremendous amounts of data, instructions and information. Every major corporation uses mainframes for business activities. With mainframes, large businesses are able to bill millions of customer, carry out business operations and maintain inter-company relationships. Mainframes are also considered to be servers in a network environment. Midrange servers, other mainframes, and people can access programs on a mainframe using terminals or personal computers.
* **Supercomputer** – a supercomputer is the fastest, most powerful computer and is the most expensive. The fastest supercomputer is capable of processing more than 100 trillion instructions in a single second. They generally weigh more than 100 tons! Examples of uses of supercomputers – online banking, weather forecasting, nuclear energy research, the federal government.
* **Embedded computer** – is a special-purpose computer that functions as a component in a larger product. Embedded computer are everywhere – at home, in your car and at work. E.g. mobile phones, cameras, video games, thermostats, security systems, microwave ovens, antilock brakes, airbag controller, cruise control.

**DISCUSSION**

* Different types of computers –which is most common
* Is there a difference between a Personal computers and Workstations?
* Is there a difference between midrange servers and workstations?
* Where are terminals used most? Advantages & disadvantages.
* Mainframes – advantages and disadvantages
* Supercomputers – what is the future of supercomputers?
* Embedded computers – advantages and disadvantages