

Lecture no. 4

Department: Information and Library Science

Subject: Information Storage & Retrieval

Name of the lecture: Storage devices-1

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Storage Devices

1. MEASURES OF STORAGE CAPACITY

Bit: Short for binary digit, which is either a (1) or a (0) in the binary system of data representation in computer systems. It is the fundamental element of all data and information stored in a computer system.

Byte: Unit of 8 bits, may be used to represent a character, digit, or other value Such as A, 3, or \$.. Bits and bytes also called characters. They are the building blocks for representing data, whether it is being processed, stored, or telecommunicated.

Gigabyte (G or GB): Approximately one billion bytes (1,073.741,824 bytes).It is a measure of storage capacity. Gigabytes are used to express the storage capacity of some microcomputers and many large computers, such as mainframes.

Kilobyte (K or KB): (1024 bytes) often rounded off to 1000 bytes. Kilobytes are a common unit of measure for storage capacity. The amount of data stored in a file or data base might be expressed in kilobytes, megabytes, or gigabytes.

Megabyte (M or MB): Unit for measuring storage capacity , equals approximately one million bytes. It is the storage capacities of many microcomputer hard disks are measured in megabytes. Users need to know how much data their hard disks can and how much space new software programs will take so that they do not run out of space.

Terabyte (T or TB): Unit for measuring storage capacity, equals approximately one trillion bytes. The storage capacities of supercomputers are measured in terabytes, as is also the amount of data being held in remote databases accessible to users over a communications line.

STORAGE DEVICES

1. Definition:

Storage devices actually consist of two physical parts: One: The storage medium on which information and software are stored. Two: The device that reads and writes to and from the storage medium.

Storage devices can be categorized in two ways: One: By their methods of storage. This refers to the technology used to write information onto a storage medium. Two: By their methods of access. This refers to the order in which information is written to and read from the storage medium-direct and sequential.

There are some storage devices, The following devices are used for storage operations, giving the definition and the functions of each one.