

Competitive Exams Disks

Think of disks as cassettes. You can record information on a cassette that can be replayed indefinitely and if desired, recorded over. Floppy and Hard Disks operate in a similar fashion. We record (Save) something we have created-like a document-onto the disk. Then, hours, days, or months later we can play back (Retrieve) the document into the computer to alter or print out:

The magnetic disk used to store information works in a manner similar to a tape recorder-magnetic impressions are placed on the tape and can be later replayed. A magnetic computer disk works in the same fashion but spins in a circle like a music record rather than moving in a straight line like recording tape.

Magnetic computer disks are available in two basic types: Floppy and hard disks. Just like cassettes, the Floppy and Hard Disks do not require electricity to retain their information. Hard Disks and Floppy Disks are similar. However, Hard Drives have a larger capacity for file storage, are faster and are less likely to fail due to the protected environment from within which they operate. Floppy and Hard Disks are nonvolatile in nature because they will retain their information without the aid of electricity.

A hard disk can hold considerably more information than a floppy disk-frequently billions and millions of computer words (or "bytes") while a floppy disk holds less than a million in many cases. However what the floppy disk loses in capacity in gains in the advantage of portability since it can easily be removed from the PC and stored which is not true of the hard disk.

When you format a disk you ask the computer to inspect the magnetic surface of the disk for any errors, prepare it for use by future data and create an index "file allocation table (FAT)" which is like a card index for a large library of books. Formatting a disk is a little like taking a blank piece of paper and using a pencil and ruler to turn it into graph paper with both horizontal and vertical lines. What was blank before now has little cells or file drawers which can hold information.

Disk Drive

The port in which a floppy disk is inserted. This device "reads data from a magnetic disk, and copies data into the computer's memory (RAM) so it can be used by the computer, and that" writes" data from the computer's memory onto a disk so it can be stored for later use. Each Disk Drive is labeled A, B, C, etc. Because we often must tell the computer which drive has the disk with the information or where to send the information. A Disk Drive reads and writes on a 5.25 inch or 3.5 inch floppy disk.

Floppy Disks

The most commonly used mass storage device. Allows entering programs to RAM and saving data from RAM. Will hold data even after the computer is turned off. Data on these disks is stored in concentric rings called tracks. The Disk surface is a thin piece of mylar and is coated with a magnetized material similar to audio or video tape.

The read/write heads can magnetize and demagnetize the coated surface repeatedly. Therefore, the Disk can be used, erased, and reused indefinitely.

Floppy disks are also available as double density and high density format. A standard floppy diskette is either 5D inches or 3A inches square. Obviously the high density of 3A "diskette contains more information than the 3A" double density diskette. A 5D" Double-sided, Double density disk holds approximately 360k worth of information (250 double spaced pages of text). The smaller 3.5 inch Double density disks which hold at least twice as much-720k.

Working with floppy diskettes.

To insert a floppy diskette into your computer drive, first remove it from the paper or plastic slipcover if one protects it. The proper way to insert a floppy diskette in most drives is as follows.

For larger 5-1/4 inch floppies, turn the printed label side up and locate the TWO VERY TINY notches along one edge. Near the notches will be a jelly bean shaped hole about one inch long cut into the plastic surface of the diskette. This oblong hole is the read/write opening. Insert the diskette into the drive with the label side up and the two tiny notches FIRST into the drive opening then close the drive locking handle. Along one edge of the diskette you will also see a SINGLE square shaped hole which is the write protect notch.

If this write protect notch is UNCOVERED you can BOTH read and write data to the diskette. If the write protect notch is covered with a piece of tape, then you can READ information from the diskette but you CANNOT write information to the diskette. This is a safeguard feature you may wish to use from time to time.

For smaller 3-1/2 inch size diskettes, turn the label side up and locate the metal "shutter" Insert the diskette into the drive with the label up and the shutter FIRST into the drive. The write protect notch or opening is a small square hole with a SLIDING PLASTIC TAB which is slid CLOSED (cannot see an open hole) to enable BOTH reading and writing to the diskette. The sliding tab is placed OPEN (visible open hole) to enable reading but NOT writing.

Fixed Disk Drive

Usually named disk drive C. It is essentially a very large floppy disk. This Fixed Disk (commonly called a Hard Drive) is secured within the machine and cannot be seen or transported. The storage capacity is so large it is measured in megabytes (1M = 1K squared = 1, 048, 576 bytes). Fixed Disks are available from 5M on up. The main advantages are that it has enough space to

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meet most users'total storage needs, operates much faster than a floppy (5 – 10 times faster), and is less likely to fail since it “lives” within the protected computer.