Difference between Magnetic Disk and Optical Disk

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September 2, 2019

The Magnetic disk and Optical disk are the storage devices that provide a way to store data for a long duration. Both are categorized under the category of secondary storage devices.

Magnetic disk:
A magnetic disk is a storage device that uses a magnetization process to read, write, rewrite and access data. The Magnetic disk is made of a set of circular platters. It is covered with a magnetic coating and stores data in the form of tracks, spots, and sectors. Hard disks, zip disks, and floppy disks are common examples of magnetic disks. The number of bits stored on each track does not change by using the simplest constant angular velocity.

Optical disk
An optical disk is any computer disk that uses optical storage techniques and technology to read and write data. It is a storage device in which optical (light) energy is used. It is a computer storage disk that stores data digitally and uses laser beams to read and write data. It uses the optical technology in which laser light is centred to the spinning disks.

Difference Between Magnetic Disk and Optical Disk:

S.NO.	MAGNETIC DISK	OPTICAL DISK
1	Media type used is Muiltiple fixed disk	Media type used is Single removable disk
2	Intermediate signal to noise ratio	Excellent signal to noise ratio
3	Sample rate is Low	Sample rate is High
4	Implementated where data is randomly accessed.	Implementated in streaming files.
5	Only one disk can be used at a time	Mass replication is possible
6	Tracks in the magnetic disk are generally circular	In optical disk the tracks are constructed spirally.
7	The data in the magnetic disk is randomly accessed.	In the optical disk, the data is sequentially accessed.
8	In the magnetic disk, only one disk is accessed at a time.	Optical disk allows mass replication