

## Difference Between SSD and HDD

The basic difference between SSD and HDD is that Solid State Drive stores the data in integrated circuits and a Hard Disk Drive stores data magnetically, through spinning disks. They can also be compared in terms of their speed, adaptability, technical modernity, and user experience.

A Hard Disk Drive is the commonly used storage disk, which uses a moving read/write head to access data. This is the traditional type of storage unit which is used in Computer devices.

On the other hand, a Solid State Drive is a faster, no-motion and more efficient secondary storage which stores data using flash memory.

To know more about the various other Computer [Storage Devices](#), candidates can visit the linked article.

### SSD vs HDD - Comparative Analysis

A tabulated comparison between the Hard Disk Drive and Solid State Drive is given below. Refer to the points of difference and analyse which among the two is better and more suitable for use.

Difference Between SSD and HDD	
SSD	HDD
<b>Full Form:</b> Solid State Drive	<b>Full Form:</b> Hard Disk Drive
<b>Movement:</b> It is a solid drive and no movement occurs while its functioning	<b>Movement:</b> It is a moving drive and the hard disk spins when it is functioning
<b>Speed:</b> It has faster processing speed	<b>Speed:</b> The processing speed is low in comparison to SSD
<b>Latency:</b> It has low latency	<b>Latency:</b> It has high latency
<b>I/O Operations:</b> The number of Input/Output functions it can perform per second is higher in comparison to HDD	<b>I/O Operations:</b> The Input/Output operations which can be performed per second by HDD is lower
<b>R/W Time:</b> It has a shorter Read/Write time	<b>R/W Time:</b> It has a longer Read/Write time
<b>Weight:</b> In terms of weight, SSD is lighter in comparison to HDD. This is because no external mechanics or motor is attached to the drive	<b>Weight:</b> HDD is heavier
<b>Sound:</b> It does not produce any sound while it is	<b>Sound:</b> It make make some sound because of

in use	the movement of components
<b>Components:</b> There are no moving parts. It only as a memory chip which stores data into integrated circuits	<b>Components:</b> HDD comprises moving components. It has one or more spinning disks which are placed on a spindle, which is motor-driven. These are called platters. Each platter is covered with a thin layer of magnetic substance
<b>Power Consumption:</b> No motion results in less use of electricity or power while using these	<b>Power Consumption:</b> Because of the spinning platters, more electricity and power is consumed
<b>Cost:</b> It is a modern storage drive and is costlier	<b>Cost:</b> It is a traditional storage drive and a bit cheaper in comparison to SSD
<b>Size:</b> It is smaller in size	<b>Size:</b> It is larger in size
<b>Safety:</b> SSD is more reliable in comparison to HDD	<b>Safety:</b> In case of any error in the drive, the entire HDD may crash and result in loss of data. This makes it less reliable

All the points mentioned above, clearly state that although they are both storage devices and are used to boot the system, their features and functioning is different.

Both Solid State Drive and Hard Disk Drive are Input Output devices and form an essential part of any computer system. Aspirants can also know the [Fundamentals of Computer](#), at the linked article.

Apart from analysing the above SSD vs HDD comparison, candidates can also refer to the links below and get other important computer-based difference between articles for their Government exam preparation:

- [Difference Between Search Engine and Web Browser](#)
- [Difference Between RAM and ROM](#)
- [Difference Between Hardware and Software](#)
- [Difference Between IPV4 and IPV 6](#)
- [Difference Between Firewall and Antivirus](#)
- [Difference Between WWW and Internet](#)
- [Difference Between Virus and Malware](#)
- [Difference Between TCP/IP and OSI Model](#)
- [Difference Between Virus and Worm](#)

Aspirants can get various other [Difference Between Articles](#) from the different sections of UPSC syllabus at the linked article.