Difference between CD and DVD

There are a few differences between CD and DVD, as the latter is derived from the former which are important as per the GATE exam perspective. Let us see the difference between CD and DVD listed in the table below:

CD (Compact Disc)	DVD (Digital Video Disc)
They have single layer of pits.	They have a double layer of pits.
Channel Bit Length is 300 nanometers.	Channel Bit Length is 113 nanometers.
The thickness is 1.2mm.	The thickness is 0.6 mm.
Data Transfer Rate is 1.4 to 1.6 megabits per second.	Data Transfer is 11 megabits per second.
The recording layer is in proximity to the top of the disc.	The recording layer is in proximity to the middle of the disc.
The size is 700 Megabytes.	Size ranges from 4.7 Gigabytes to 17 Gigabytes.

What is a CD?

A CD (Compact Disc) is a secondary storage portable device. It is used to record, store, and play audio, video, etc. It uses a 14-bit long code to store data. It is available easily and also inexpensive in comparison to other storage devices.

CDs (Compact Discs) are prone to scratches and are fragile. They can be reused and repaired at the cost of readability errors. CDs work based on semiconductors, which is included in GATE CSE syllabus by the officials.

History of CD (Compact Disc)

CD (Compact Disc) was invented in the year 1966 by an American, James Russell. Sony Corp. and Philips electronics were the first to purchase the licenses in the year 1980. The first CD player was released in 1982. There were only two manufacturers of compact discs: Sony and Philips.

Right after its launch, many variations are available in the market, such as CD- Read-Only Memory, CD-interactive, CD-Rewritable, CD-Recordable, Photo CD, Video CD, etc.

What is a DVD?

DVD stands for Digital Video Disc or Digital Versatile Disc. It is an optimal storage device used for multimedia platforms. One of the differences between CD and DVD is that DVD (Digital Video Disc) represents the second generation of CD technology. It uses laser technology to read binary-coded data encoded onto the disc.

DVD (Digital Video Disc) can store on both sides of the disc and are available in single as well as double-sided versions, this is one of the major differences between CD and DVD. It can hold more than 16 GB of information or data, which is more than a compact disc (CD) capacity.

History of DVD (Digital Video Disc)

In 1995 Toshiba Corporation and Time Warner Inc agreed to a format called DVD (Digital Video Disc) and the first DVD went on sale in Japan. DVDs became a standard media for watching serials and movies at home.

The next generation of DVDs is termed High definition or HD technology. HD technology provides better picture quality and random access to the information stored.