

NIELIT GORAKHPUR

Course Name: O Level (2nd Sem)
Topic: CD/DVD Disc and Drive (Part 1)

Subject: Introduction to ICT Resources
Date: 19-05-2020

CD/DVD Disc and Drive

Compact Disc

Compact Disc (CD) is a digital optical disc data storage format that was co-developed by Philips and Sony and released in 1982. The format was originally developed to store and play only sound recordings (CD-DA) but was later adapted for storage of data (CD-ROM). Several other formats were further derived from these, including write-once audio and data storage (CD-R), rewritable media (CD-RW), Video Compact Disc (VCD), Super Video Compact Disc (SVCD), Photo CD, PictureCD, Compact Disc-Interactive (CD-i), and Enhanced Music CD. The first commercially available audio CD player, the Sony CDP-101, was released October 1982 in Japan.

Standard CDs have a diameter of 120 millimetres (4.7 in) and can hold up to about 80 minutes of uncompressed audio or about 700 MB of data. The Mini CD has various diameters ranging from 60 to 80 millimetres (2.4 to 3.1 in); they are sometimes used for CD singles, storing up to 24 minutes of audio, or delivering device drivers.

Type of Compact Disc

According to Read-Write, there are two type of disc.

1. CD-R Disc – it can once write and read many times
2. CD-RW Disc– it can read, write and erase many times

Digital Versatile Disc

DVD (abbreviation for Digital Versatile Disc or Digital Video Disc) is a digital optical disc storage format invented and developed in 1995 and released in late 1996. The medium can store any kind of digital data and is widely used for software and other computer files as well as video programs watched using DVD players. DVDs offer higher storage capacity than compact discs while having the same dimensions.

Prerecorded DVDs are mass-produced using molding machines that physically stamp data onto the DVD. Such discs are a form of DVD-ROM because data can only be read and not written or erased. Blank recordable DVD discs (DVD-R and DVD+R) can be recorded once using a DVD recorder and then function as a DVD-ROM. Rewritable DVDs (DVD-RW, DVD+RW, and DVD-RAM) can be recorded and erased many times.

DVDs are used in DVD-Video consumer digital video format and in DVD-Audio consumer digital audio format as well as for authoring DVD discs written in a special AVCHD format to hold high definition material (often in conjunction with AVCHD format camcorders). DVDs containing other types of information may be referred to as DVD data discs.

Type of DVD

According to Read-Write, there are mainly two type of DVD disc.

1. DVD-R Disc– it can once write and read many times
2. DVD-RW Disc– it can read, write and erase many times

NIELIT GORAKHPUR

According to Capacity, side and layer , DVD disc are following.

Designation		Sides	Layers (total)	Diameter (cm)	Capacity (GB)
DVD-1	Single-Sided Single-Layer	1	1	8	1.46
DVD-2	Single-Sided Dual-Layer	1	2	8	2.65
DVD-3	Double-Sided Single-Layer	2	2	8	2.92
DVD-4	Double-Sided Dual-Layer	2	4	8	5.31
DVD-5	Single-Sided Single-Layer	1	1	12	4.70
DVD-9	Single-Sided Dual-Layer	1	2	12	8.54
DVD-10	Double-Sided Single-Layer	2	2	12	9.40
DVD-14	Double-Sided Single-Layer+ Dual-Layer	2	3	12	13.24
DVD-18	Double-Sided Dual-Layer	2	4	12	17.08

Exercise:

1: What is Compact Disc (CD) and how many types?

2: What is Digital Versatile Disc (DVD) and how many types?