

Ex: No: 2a
3/8/24

STUDY OF CABLES

Aim:

To understand the different types of cables

- (i) UTP (Unshielded Twisted Pair)
- (ii) STP (Shielded Twisted Pair)
- (iii) Coaxial cable
- (iv) Fibre optic cable

UTP

Category 3

- * 10 mbps Data transmission

Advantages:

- * Cheaper
- * Easy to Install

Disadvantages:

- * More prone to EMI

Category 5

- * Upto 100 mbps Data transmission

Uses:

- * Fast Ethernet, Gigabit Ethernet

Category 5e

- * 1 Gbps Data transmission

- * Fastest Ethernet, Gigabit Ethernet.

2. STP

Category 7, 6, 6a

* 10 Gbps Data transmission

uses

* Gigabit Ethernet, 10G Ethernet

3. SSTP

category 7

* 10 Gbps Data transmission

uses

* Gigabit Ethernet, 10G Ethernet

Advantages

* Shielded, faster than UTP

Disadvantages

* Expensive

4. Coaxial Cable

* RG-6, RG-59, RG-11 Category

* 10-100 Mbps Data transmission

uses

* Television networks

* High Speed Internet connection

5. Fibre optical Cable:

- * Single mode and multimode category

- * 100 Gbps Data transmission

Uses *

- * Maximum distance of fibre optic cable is around 100 metres

Advantages

- * High Speed

- * High Bandwidth

Disadvantage

- * Expensive

- * Requires skilled installation.