Exercise No : 2

Date : 24.07.24

Aim:-

Study of different types of Network cables.

a) Understand different types of network cables.

Cable type	Category	Max. data transmission	Adv./ disadv.	Appl Use
UTP	Category 3	10bps	Advantages: • cheaper cost • Easy to install disadvantages: • More prone to EMI – electromag interference.	10 Base-T Ethernet
	Category5	Up to 100 Mbps		Fast Ethernet, Gigabit Ethernet.
	Category 5e	1 Gbps		Fast Ethernet, Gigabit Ethernet.
STP	category 6, 6a	10 Gbps	Advantages: • Shielded • Faster than UTP • Less susceptible Disadvantages: • Expensive • Greater installation	Gigabit Ethernet 10G Ethernet (55m) Widely used in data centres.
SSTP	Category 7	10 Gbps		Gigabit Ethernet, 10G Ethernet (100 m)
Coaxial Cable	RG-6 RG-59 RG-11	10-100 Mbps	Advantages: • High bandwidth. • Low loss • Immune to interference. Disadvantages: • Cost. • Size is bulky	speed of singal is 500m Television network High speed internet connections
fibre optics cable	single mode Multi mode	100 Gbps	Advantages: • High speed • High security • Long distance Disadvantages: • Expensive	Maximum distance of fibre optics cable is around 100 meters

Student Observation:

1) Crossover cable: transmit and receive wires are crossed; used to connect two similar services.

Straight cable: same wiring standard on both ends; used to connect different devices like PC to switch or router.

2) Crossover cable.

3) Straight cable.

5) Understanding: Involves arranging wires.

Challenges: Correct wire arrangements

shipping without damage

Output: Successfull cables enable network connections.

Result:

Thus the different Network cables have been studied.

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