EX:2
Date: 23/07/2024

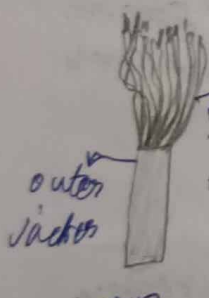
Study of Network cables

Aim:

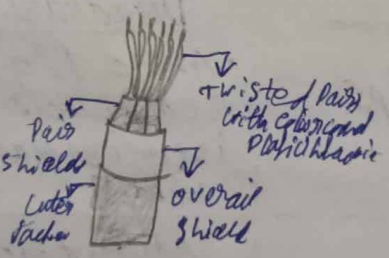
To study of different types of Network cables.

cable type	category	Maximum Data Transmission	Advantages/ Disadvantages	Application/ Use
UTP	Category 3	10 bps	**Advantages** • cheaper in cost • Easy to install as they have a smaller overall diameter. **Disadvantages** • More prone to (EMI) Electromagnetic interference and noise	10 Base-T Ethernet
	Category 5	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 to noise and interference **Disadvantages** • Expensive • Greater installation effort	Gigabit Ethernet, 10 G Ethernet (55m) widely used in data centers
SSTP	Category 7	10 Gbps		Gigabit Ethernet 10 G Ethernet (100 m)

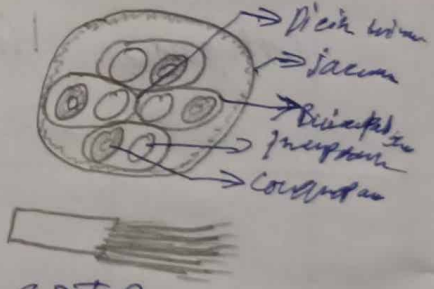
coaxial cable	RG-6 RG-59 RG-11	10-100 Mbps	**Advantages** • High bandwidth • Immune to interference • Low loss bandwidth • Versatile **Disadvantages** • Limited distance • cost • size if bulky	Speed of signal is 500m Television network High speed internet connection
fibre optic cable	single mode multi mode	100Gbps	**Advantages** • High speed • High bandwidth • High security • Long distance **Disadvantages** • Expensive • Required skilled installer	Maximum distance of fibre optic cable is around 100 meters.



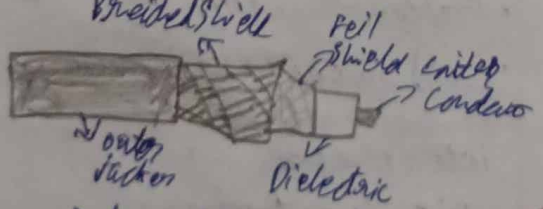
UTP



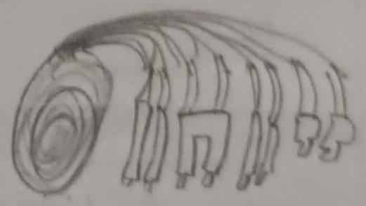
STP



SSTP



Coaxial Cable


fibre optic cable

23/7/24

Result: Thus the different type of network cable has been studied