

STUDY OF NETWORK CABLES

Aim:

Study of different types of Cables understand different types of Network Cables:

1. Unshielded Twisted pair (UTP) cable
2. Shielded Twisted pair (STP) cable
3. Coaxial Cable
4. Fibre optic cables.

Cable Type	Category	Max Data Transfer width	Att. Dis.	Use	Image
UTP	Category 3	10Mbps	Att. 100m	10 Base T	
	Category 5	Up to 100 Mbps	Att. 100m	Fast Ethernet	
	Category 5e	100Mbps	Att. 100m	Fast Ethernet	

b) Make your own ethernet cross-over cable | straight cable.

Tools and parts needed:

* Ethernet Cables. CAT5e is certified for gigabit support, but CAT5 cabling works as well, just over shorter distances.

* A crimping tool. This is an all-in-one networking tool shaped to push-down the pins in the plug and strip and connect the shielding off the cables.

Local Area Network	RJ-45 RJ-59 PLC-11	10-100 Mbps	<ul style="list-style-type: none"> * High bandwidth. * lowest cost. * 500m * Non-shielded network. * Cost effective. * Good indoor connection.
Fibre optics cable	Single mode Multi mode	100Gbps	<ul style="list-style-type: none"> * High speed distance. * Long distance. * High security. * Maximum distance. * Optical cable is around 100 meters.

* Two RJ45 Plugs.
* Optional two Plug Shields.

Question and Answer:-

1. What is the difference between Cross Cable and Straight Cable?

Cross cable connects devices of the same type directly, while a straight cable connects devices of different types like a computer to a switch.

2. Which type of cable is used to connect two pc?

Cross cable.

3. Which type cable is used to connect a router /switch to your pc?

Straight cable

4. Find out the category of twisted pair cable used in your to connect the pc to the network socket.

IN most LANs, the Category of twisted pair cable used to connect a PC to a network

socket is typically Cat5e, Cat6 or Cat6a depending on the network's speed and performance requirements.

- ⑤ Write down your understanding, challenges faced and output received while making a twisted pair cross/straight cable.

Understanding - Induces arranging wires

Challenge - correct wire arrangement

Output - Successful Connection of wire.

Result - Success of connection

Conclusion - Twisted pair cables are used to connect two devices in a local area network.

Result:

Thus, the different type of network cable is studied.

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