

Pa. no: 2

Date: 24/1/24

Practical-2

Cable Type	Category	Maximum Data Transmission	Advantages/Disadvantages	Applications/Use
UTP	Category 3	10 bps	<u>Advantages</u> • Cheaper in cost • Easy to install	10Base-T Ethernet
	Category 5	up to 100 Mbps	<u>Disadvantage</u> • more prone to (EMI) electromagnetic interference noise	Fast Ethernet Gigabit Ethernet
	Category 5e	10 Gbps		Fast Ethernet Gigabit Ethernet
STP	Category 6	10 Gbps	<u>Advantages</u> • shielded • Faster than UTP	Gigabit Ethernet 10 Gbps Ethernet Widely used in data centers
SSTP	Category 7	100 Gbps	<u>Disadvantage</u> • expensive • Greater installation effort	Gigabit Ethernet 100 Gbps Ethernet (100)
Coaxial	Rb-10 Rb-59 Rb-11	10-100 Mbps	<u>Advantages</u> • High bandwidth • Immune to interference • Low loss bandwidth • Versatile <u>Disadvantages</u> • Limited distance • Cost • Bulky	speed is 500m television network High speed internet connection

Fiber optic cable	single mode multimode	100 Gbps	<u>Advantage</u> <ul style="list-style-type: none"> * High speed, bandwidth, security * Long distance <u>Disadvantage</u> <ul style="list-style-type: none"> * Expensive * Require skilled installers 	* Max distance is 100 meters
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Done
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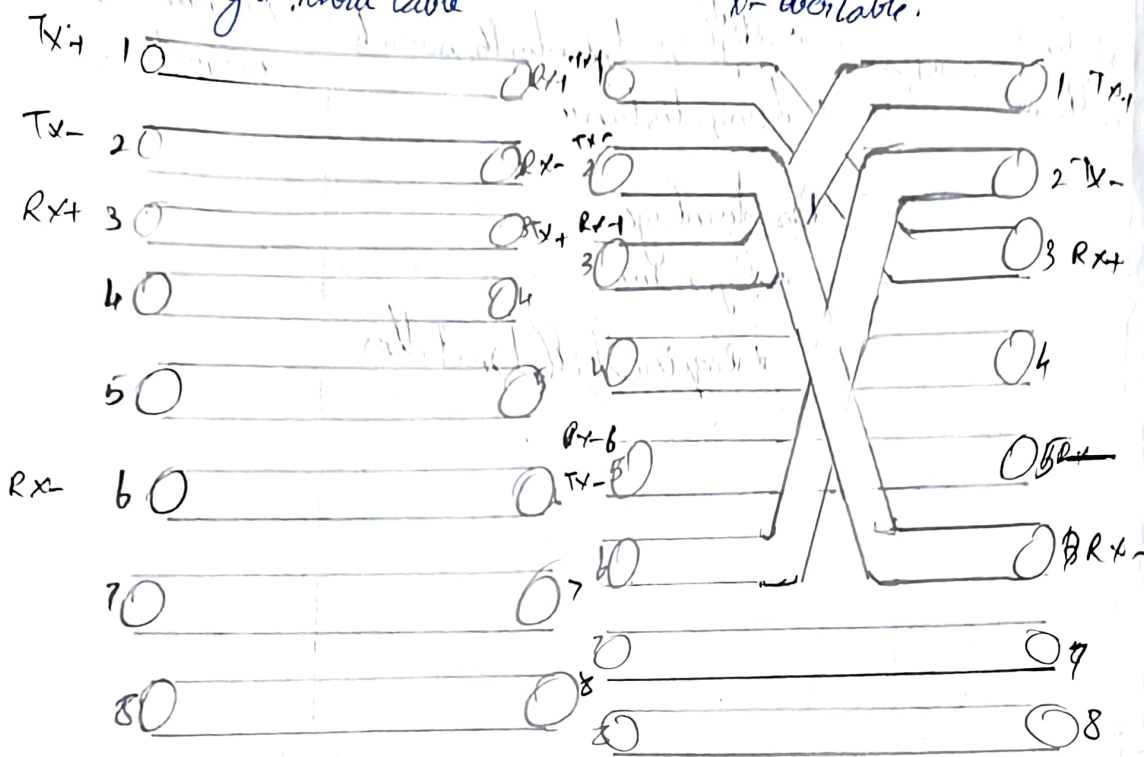
b) Make your own Ethernet Cross-over Cable / Straight Cable

Tools and part needed:

- * Ethernet cabling. 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 cut the shielding off the cables.
- * Two RJ45 plugs
- * Optional Two plug shields.

Straight Thru Cable

It is available.



Student Observation:

- 1) Cross cable is used to connect similar devices whereas straight cable is used to connect different devices.
- 2) Cross cable is used to connect two PC.
- 3) Straight cable
- 4) RJ45

Signature
18/11/24