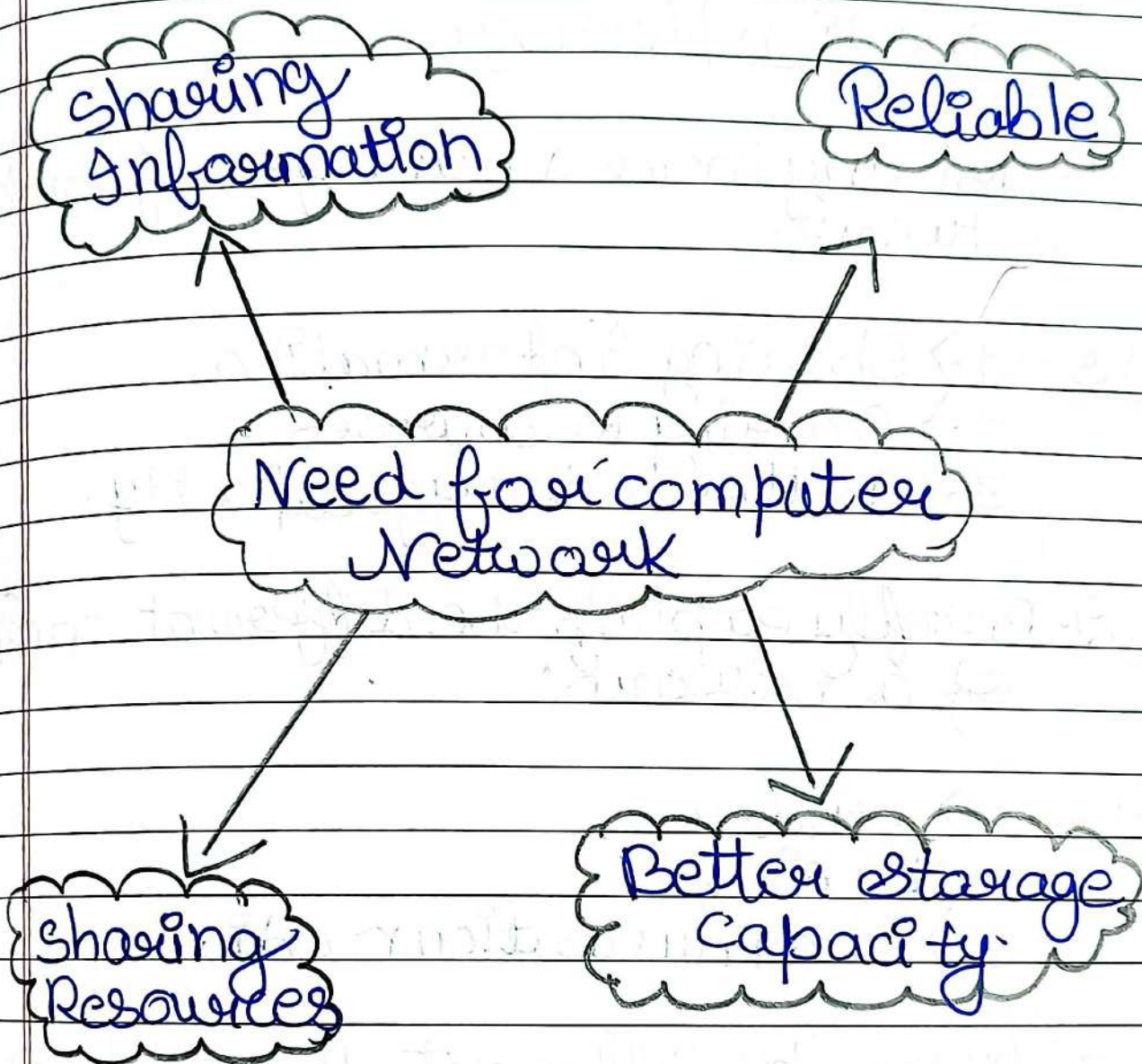


# chapter = 1 Networking concepts



Date

2/5/26

chapter = 1

Question / Answer

1. List any three advantages of computer network.

Ans => 1. > Sharing Information  
2. > Sharing Resources  
3. > Better storage capacity.

2. Briefly explain the different components of a network.

Ans => 1. > Sender  
2. > Receiver  
3. > communication media.

3. Name the different types of computer network. Write differences between LAN and WAN.?

Ans = )

# Types of Network

Personal area network (PAN)

Local area network (LAN)

Metropolitan Area network (MAN)

Wide Area Network (WAN)

★ <u>LAN</u>	<u>WAN</u>
★ LAN stands for local area network.	★ WAN stands for wide Area Network.
★ LAN is a privately owned network.	★ WAN's ownership can be Private or public.
★ The speed of LAN is high.	★ The speed of WAN is slower.
★ The time it takes to travel from the sender to the receiver is short in LAN as compared to (WAN)	★ The time it takes to travel from the sender to the receiver is longer in WAN as compared to other network
★ The reliability is more in LAN.	★ There is less reliability in WAN.

4. Describe the types of topologies that a network can use.

Ans ⇒

## Network Topologies

Bus

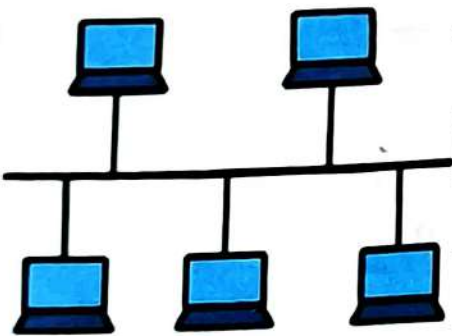
Ring

Star

Tree

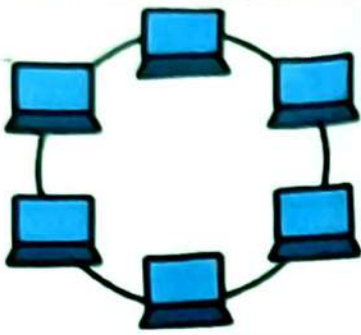
mesh

Bus topology ⇒ In this technology, a single cable.



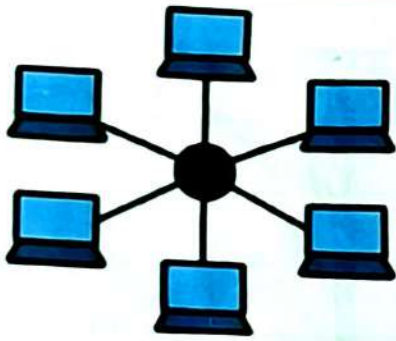
Bus Topology

Ring topology (Circular topology)  
 This technology, use multiple links to form a loop of computers. Each computer is connected to the loop, thus forming a ring of a Ring or a circle.



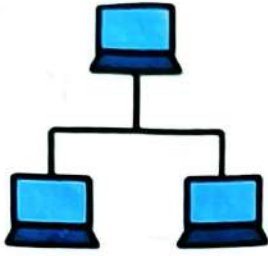
Ring Topology

Star topology ⇒ Star topology is a network topology in which each network component is physically connected to central device, which can either be hub or switch when the hub/switch.



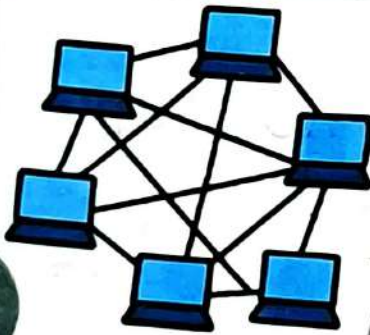
Star Topology

Tree topology ⇒ Tree topology is a combination of the Bus and the star topology. In this type of a network arrangement, we have multiple servers.



Tree Topology

Mesh topology ⇒ In mesh topology all the nodes are connected to each other using separate cables and creating a point to point connection among them.

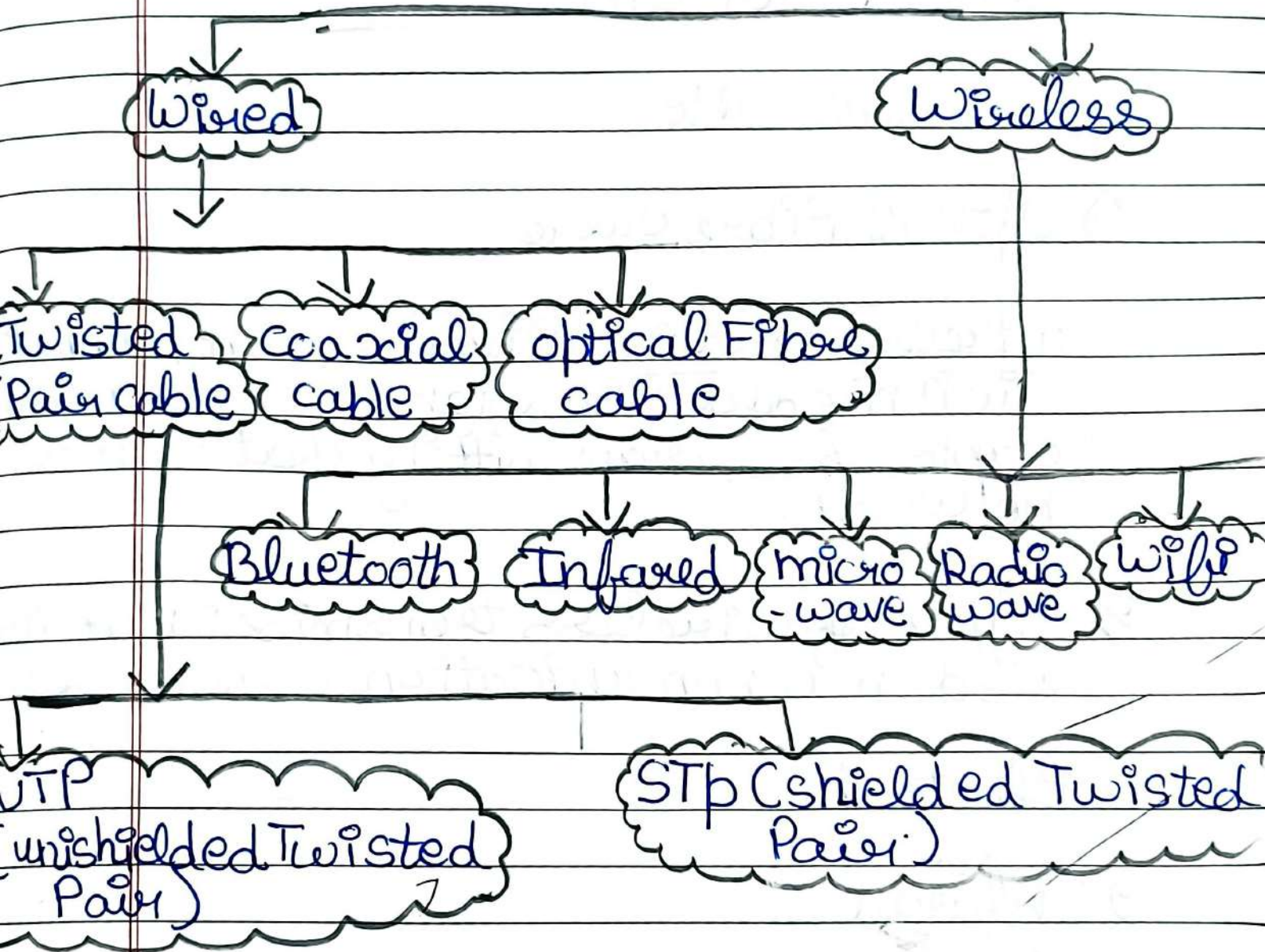


Mesh Topology

5. ⇒ what is the difference between wired and wireless communication media?

Ans

# Communication Media



Wired media wired communication media refers to the electrical cables that are used to carry signals from one device to other in a network. commonly used wired media are as

follows :-

1. Twisted Pair cable.
2. Coaxial cable.
3. Optical Fibre cable.

Wireless media  $\rightarrow$  Wireless communication media use signals instead of cables for transmitting data in a network.

$\Rightarrow$  Types of wireless transmission media used in communication are as follows

1. Bluetooth
2. Infrared
3. Microwave
4. Radio waves
5. Wifi.

Q. Why is the security of a network necessary.

Ans. Security of a network necessary is protect data from unauthorized access.

## Competency - Based Questions

A bank has three ATMs in the west zone of Delhi. The machines need to be connected for a high speed connectivity.

1. Which type of network is formed when ATM machines are connected to form a network?

Ans. MAN.

2. Which type of communication media should be used to connect these machines?

Ans. Optical fibre (wired connection)

3. Name the security protocol that will be used?

Ans ⇒ HTTPS.