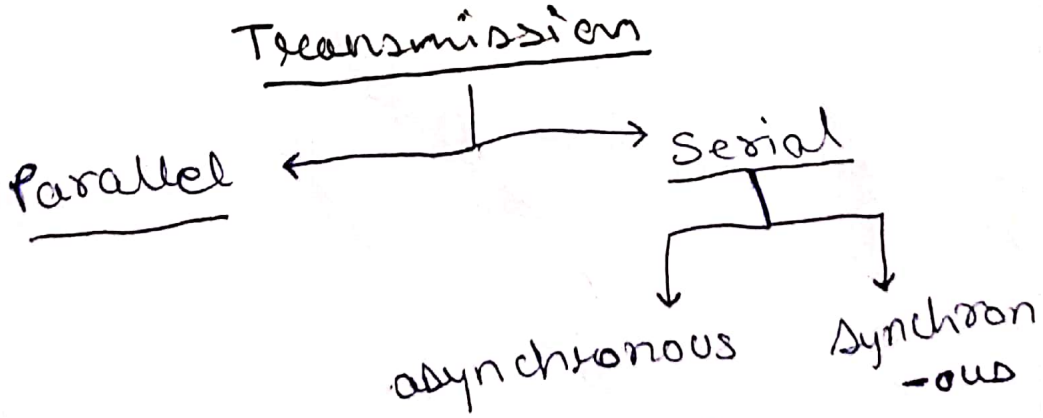
Q. How many modes of transferring data are used throughout networking

↳ There are two types / methods used to transmit data B/W digital devices :-

1. Serial transmission
2. Parallel transmission

- Serial transmission :- Serial transmission send data bits one after another over a single channel.
  → It is viewed as a reliable data transmission method because a data bit is only set if the previous data bit is already recieved.



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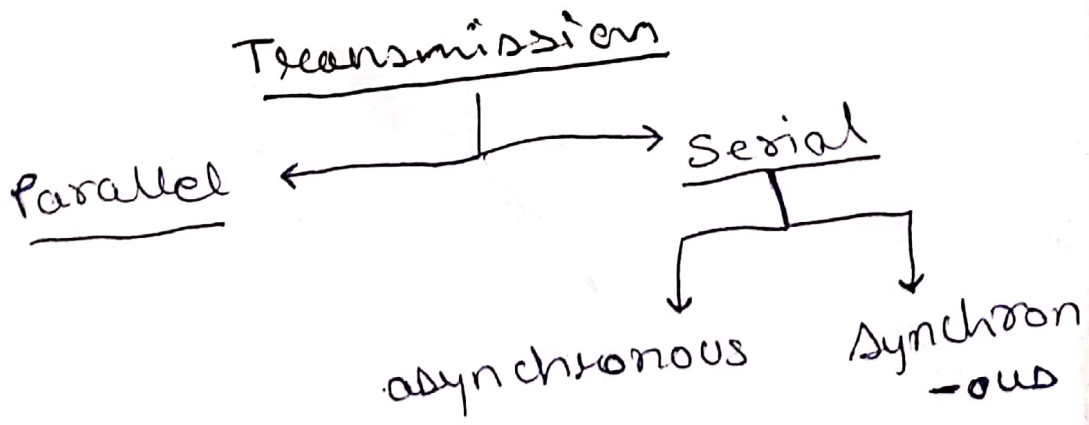


- Parallel transmission :- when data is sent using parallel data transmiss-ion, multiple data bits are transmitted over multiple channels at the same time.

→ Given that multiple bits are sent over multiple channels at same time, the order of which a bit string is recieved can depend on various conditions, such as proxim-ity to the data source, user location & Bandwidth availability.

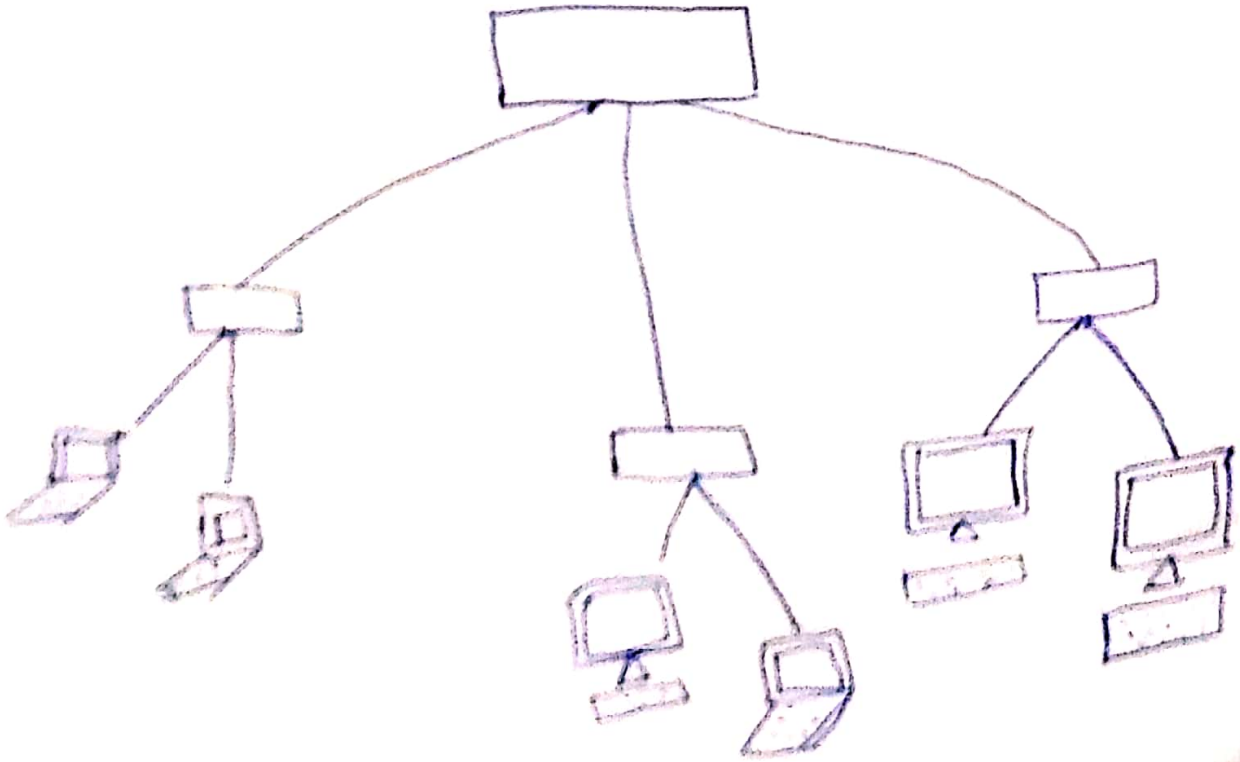
Advantages — (1) Easier to program.
(2) Data is sent fast.
(3) Large amount of data sent
(4) data being sent time - sensitive.

Q - Short note on Ethernet.

↳ Ethernet is a family of computer networking technologies for local area networks (LAN) & Metropolitan area network (MAN).

→ LAN is most popular technology world wide.

→ It is easy, inexpansive ~~or~~ way to provide high performance network to all different types of computer equipments



Q - How are networks classified based on their connections?

↳ Networks are typically classified by range, ranging from small, personal network to global wide-area networks & internet itself.

Topologies :- Bus, ~~ring~~ ring, star, Mesh, Tree.

BUS : Multiple data communication circuit, that makes it relatively simple to control data flow.

Ring : Each device is connected to its neighboring node forming the shape of ring based on data flow.

Q - In How many way, data is represented & what are they?

↳ Computer use binary - the digits 0 & 1 - to store data. A binary digit, or bit, is the smallest unit of data in computing.

→ It is represented by 0 or 1. Binary number is made up of binary digit (bit), i.e. 1010.

Q How can a network be certified as an effective network? what are factor affecting them?

↳ **Performance** : it is measured in terms of response time. The response time should be minimal.

Data sharing : Network is to share the Data b/w different systems connected with each other through transmission media.

Backup : Central server that keeps the backup of all the data that is to be shared over a network so that in case of a failure it should be able to recover data.

Reliability : There should not be any failure in the network or if it occured, recovery from failure should be fast.

Q Explain important terminologies we come across networking concept ?

↳ WAN : Stands for wide area network. Covers area wide enough so that communication is barely possible without networking.

Internet : It is computer network system that connects the computer of the world. It is normal connecting through WAN or LAN.

WWW : It is service that is used on internet to view and search contents in form of web pages.