

Transmission Modes.

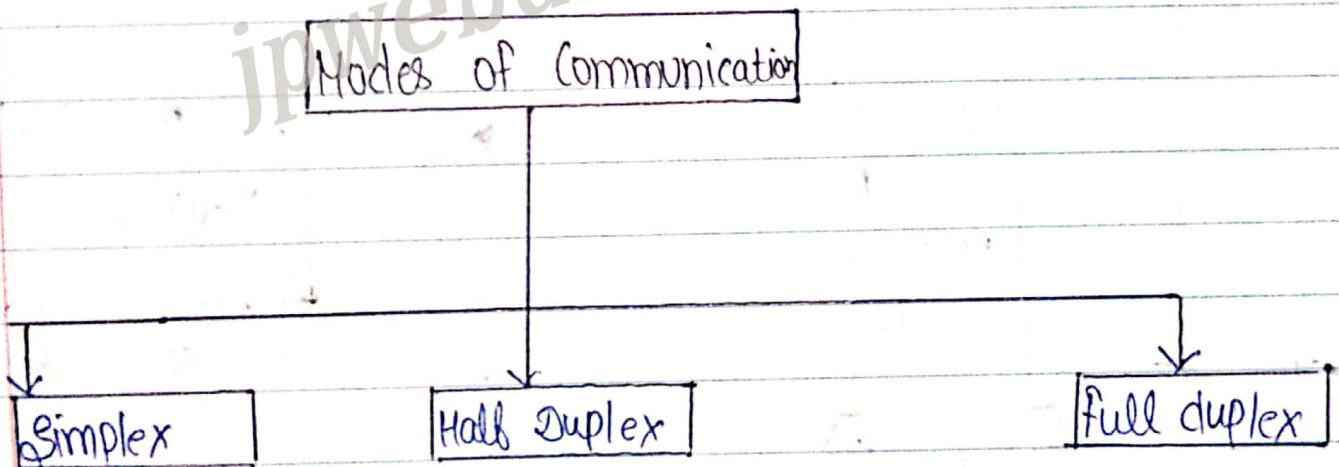
• Transmission Mode defines the direction of the flow of information between two communication devices.

• There are three types of Transmission modes:-

1. Simplex

2. Half Duplex

3. Full Duplex



1. Simplex Mode:-

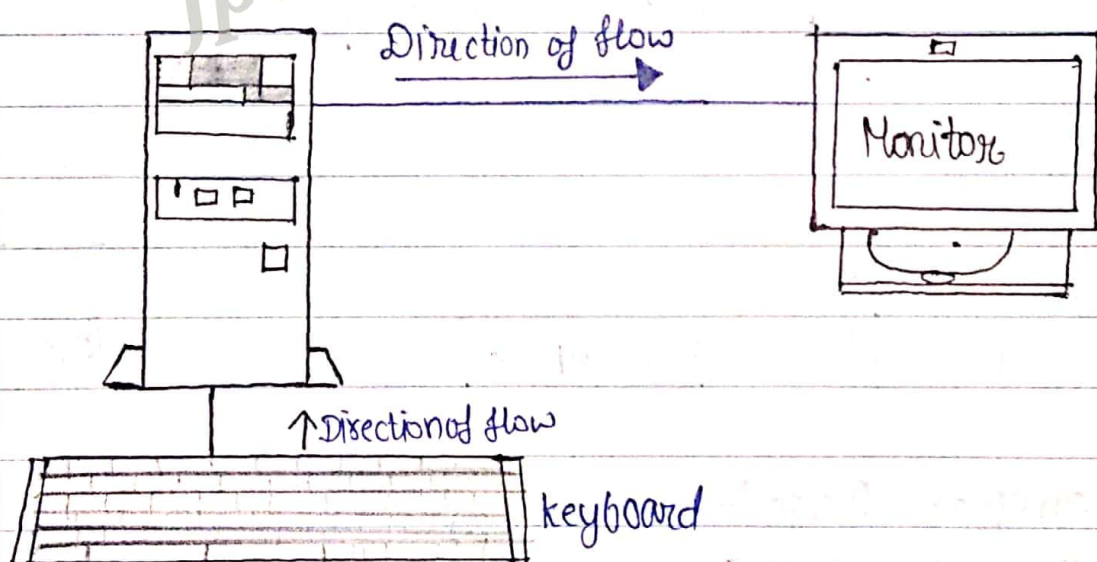
• In this, transmission information is sent in only one direction.

• Communication is unidirectional.

- Those devices connected in simplex mode is either sent only or received only i.e. one device can only send other device can only receive.

Example:- keyboards and traditional monitors are the examples of simplex device.

- keyboard can only introduce input, the monitor can only accept output.



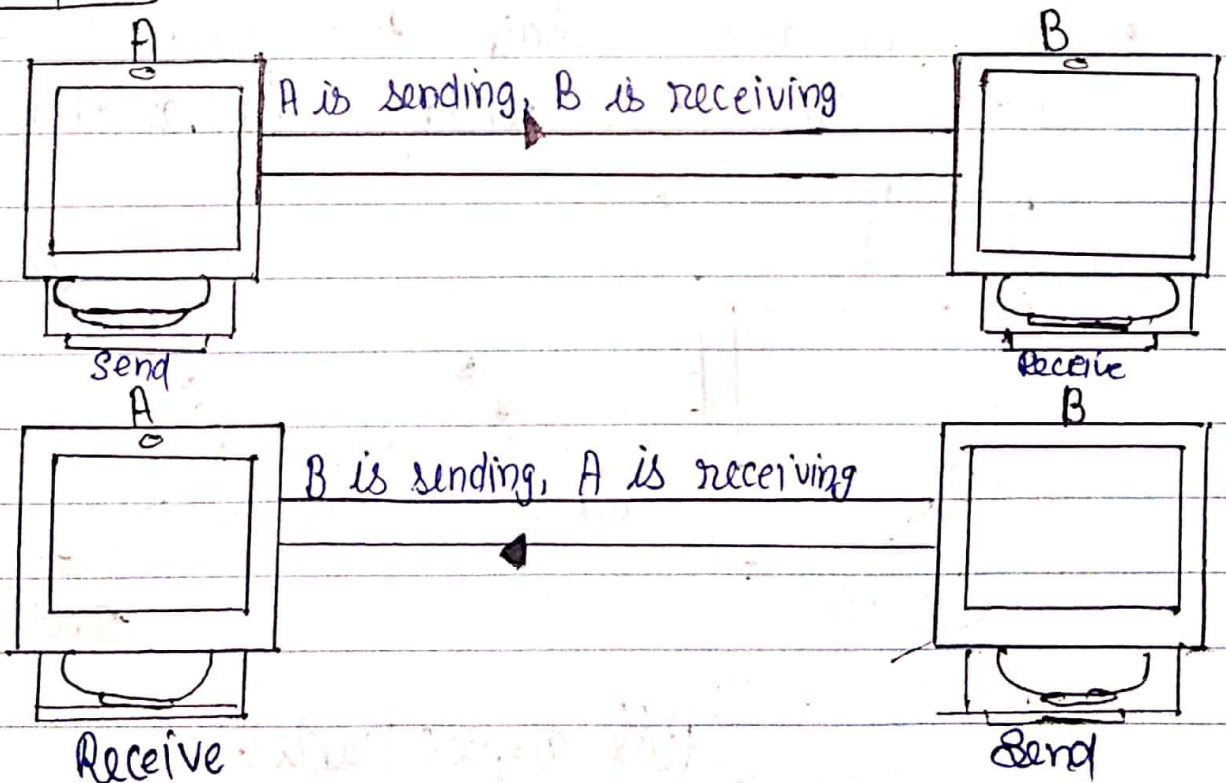
(Simplex transmission)

- The communication from CPU to monitor or keyboard to CPU is unidirectional.

(ii) Half Duplex Systems (HDX):-

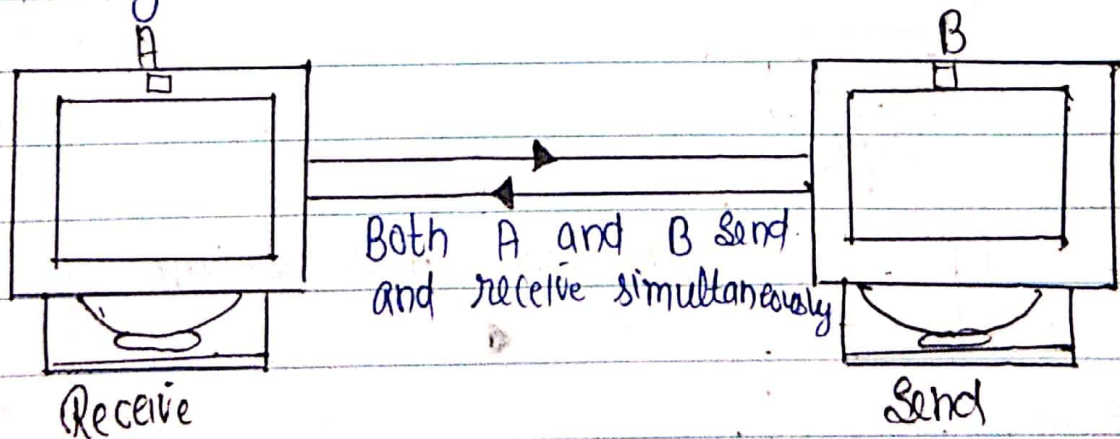
- In Half duplex transmission data can be sent in both the directions, but only in one direction at a time.
- These systems can either transmit or receive.
- for example:- walky talky set.
- It can only send or receive a transmission at any given time. It cannot be both.

Example:-



3. Full Duplex (FDX) :-

- In FDX, data can be sent in both the directions simultaneously.
- Both the connected devices can transmit and receive at the same time.
- It represents truly bi-directional system.
- For example :- Telephone systems.
- In FDX, signals going in either direction share the full capacity of link.
- The link may contain two separate transmissions paths one for sending and another for receiving.



(full duplex mode).

* Comparison between Simplex, Half Duplex and full Duplex.

Basis	Simplex	HDX	FDX
1. Direction of Communication	Communication is unidirectional	Communication is bi-directional but one at a time.	Communication is bi-directional and done simultaneously.
2. Number of wires required	Two	Two	four
3. Efficiency	Low	Medium	High.
4. Cost of Transmission	Cheapest	Average	Costly.
5. Send/Receive	A sender can send data, but cannot receive.	A Send can send as well as receive the data, but one at a time.	A Sender can send as well as receive the data simultaneously.
6. Example	Keyboard and Monitor	Walkie-talkies	Telephone.