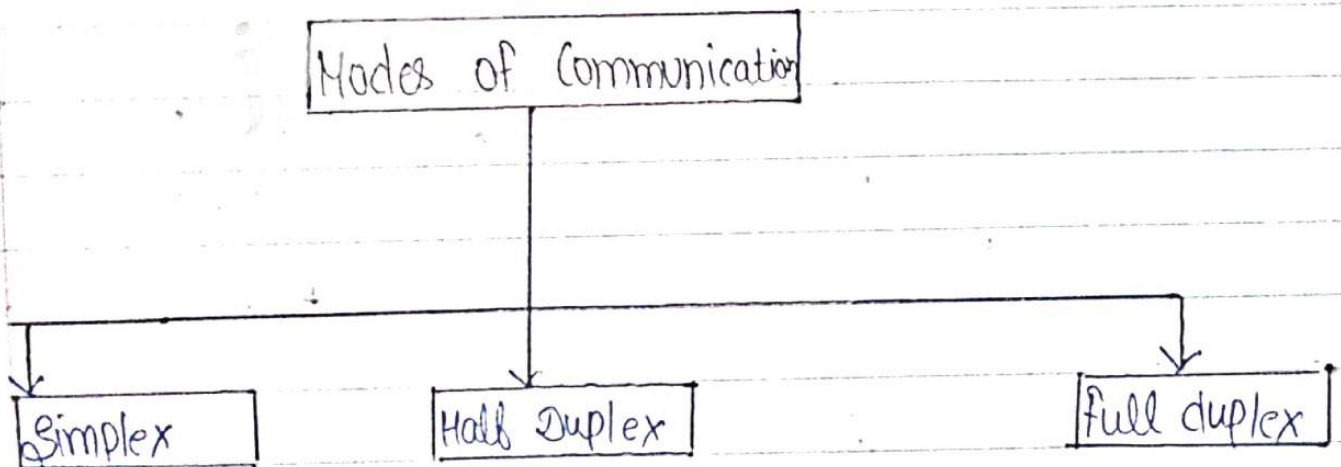


# Transmission Modes.

- 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



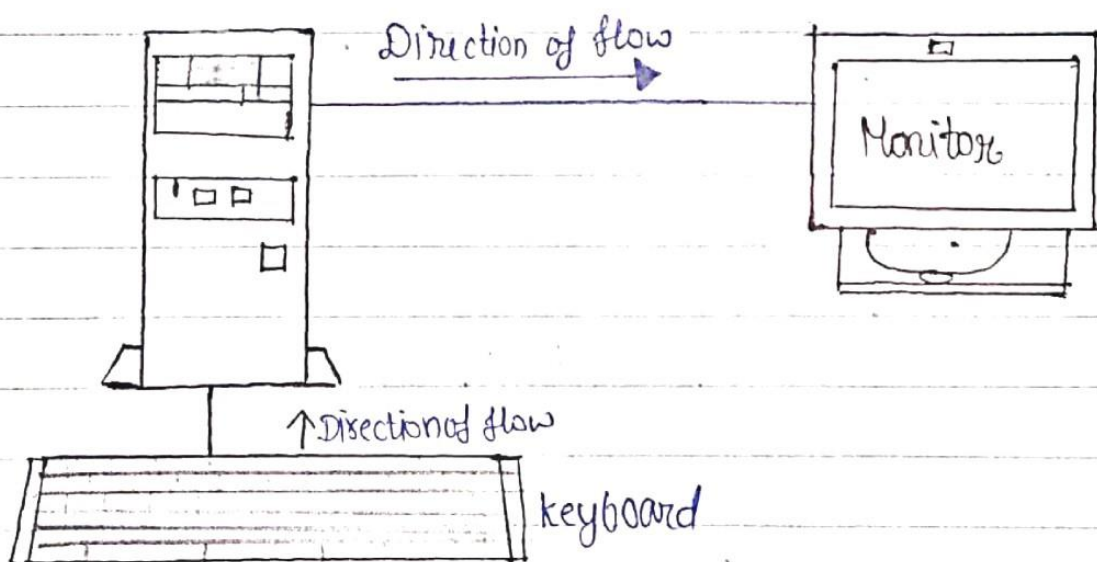
## 1. Simplex Mode:-

- 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 )

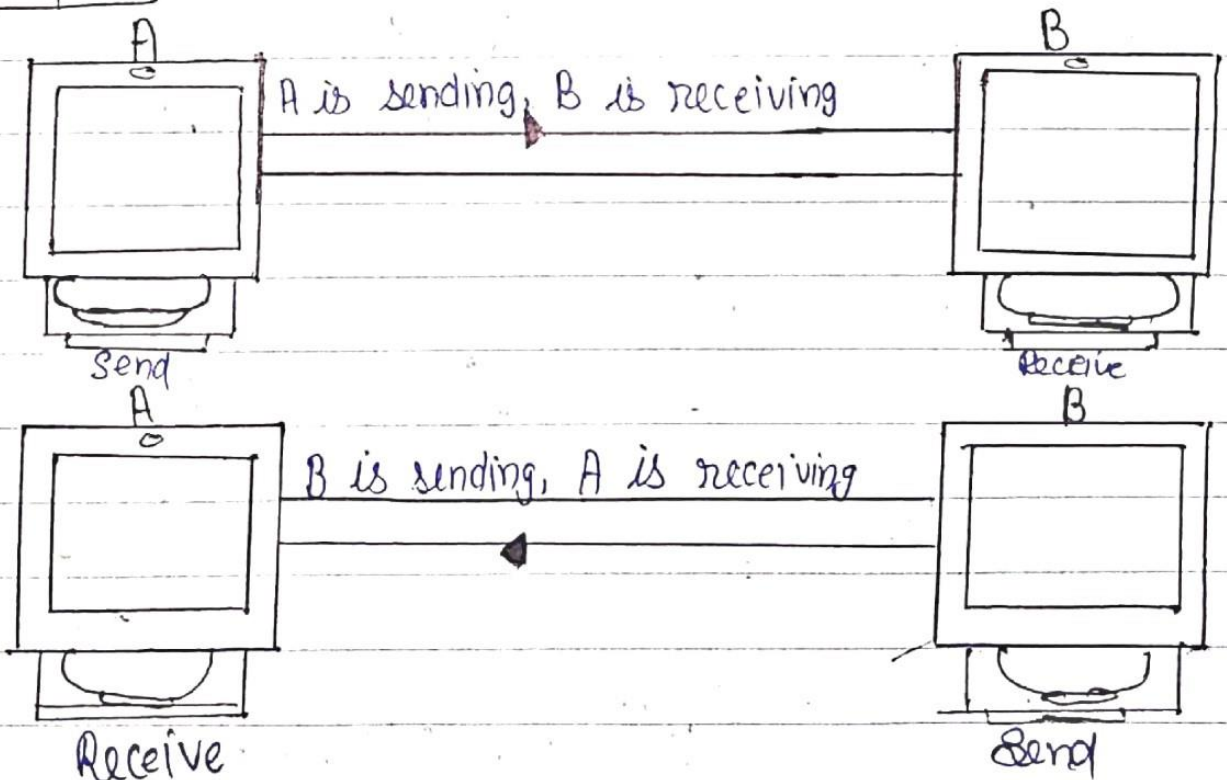
- The communication from CPU to monitor or keyboard to CPU is unidirectional.



## (ii) Half Duplex Systems (HDX):-

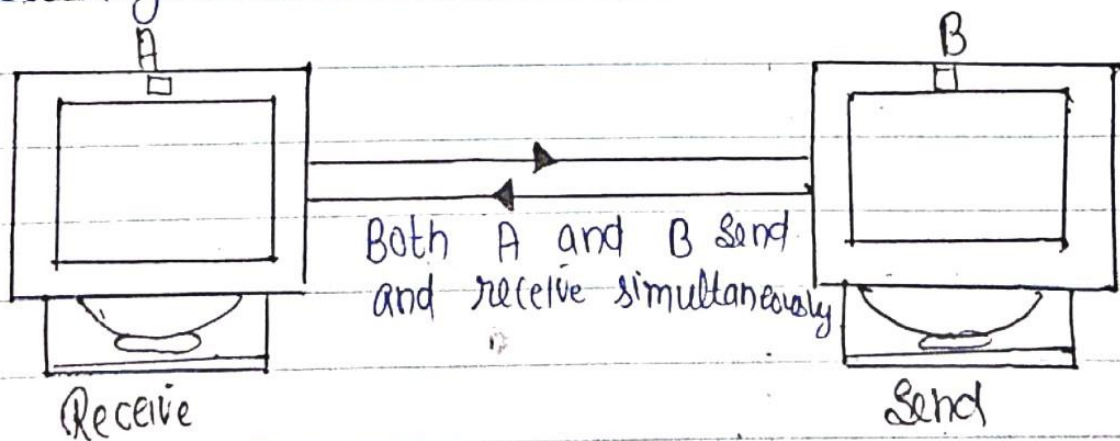
- In Half duplex transmission data can be sent in both the directions, but only in one direction at a time.
- These systems can either transmit or receive.
- for example:- walky talky set.
- It can only send or receive a transmission at any given time. It cannot be both.

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.