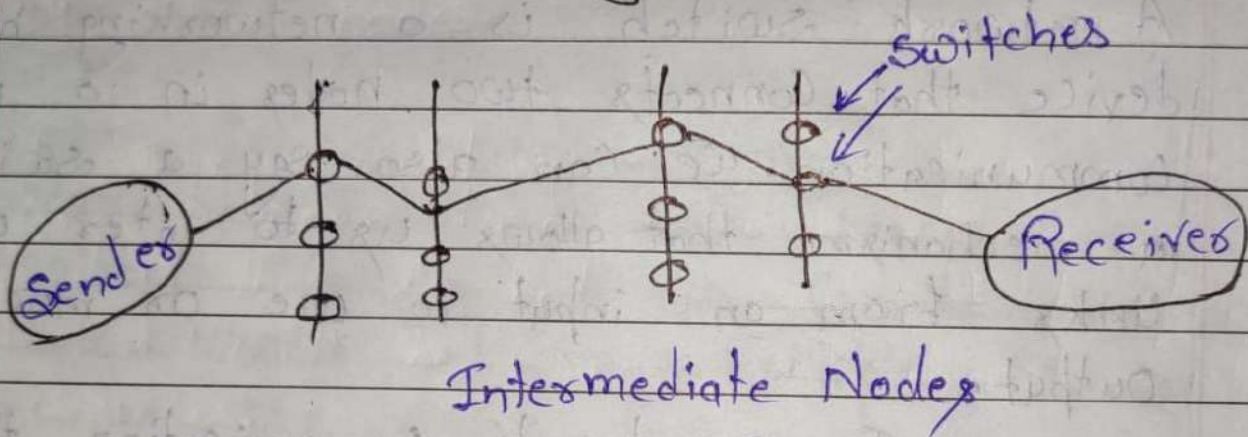


1. Circuit Switching :-



Circuit Switching is a Connection oriented network switching technique. In this technique a dedicated route is established between the source and the destination node and the entire message is communicated through it. We can say there is a direct circuit or line between two communicating nodes via a number of intermediate nodes. This switching has three phases -

i) Circuit established :-

In this stage a dedicated circuit is established between the sender and receiver node to intermediate nodes where each intermediate node has number of circuit the circuit established is confirmed when receiver gives confirming signal.

ii) Data transfer :-

After the circuit is established, voice, video and data can be transferred between the communicating nodes using the established dedicated circuit.

iii) Circuit disconnection :-

After the communication is over, any of the communicating nodes can stop the communication by disconnecting the circuit.

land line telephone connection is a good example of circuit switching.

Advantage

i) It is suitable for long duration continuous transmission as a direct circuit is established between two participating nodes.

ii) The dedicated path ensure a steady data rate of communication.

iii) This switching provides a very fast data transfer rate as there is no intermediate delays once the circuit is established.

Disadvantage

i) It takes a long time to establish a circuit.

ii) It establishes a dedicated connection between two communicating nodes. It means it can not be used for communication by other nodes.

iii) This switching established has a dedicated line between two communicating nodes and if they do not utilize it properly then it will be under utilization of system resources.