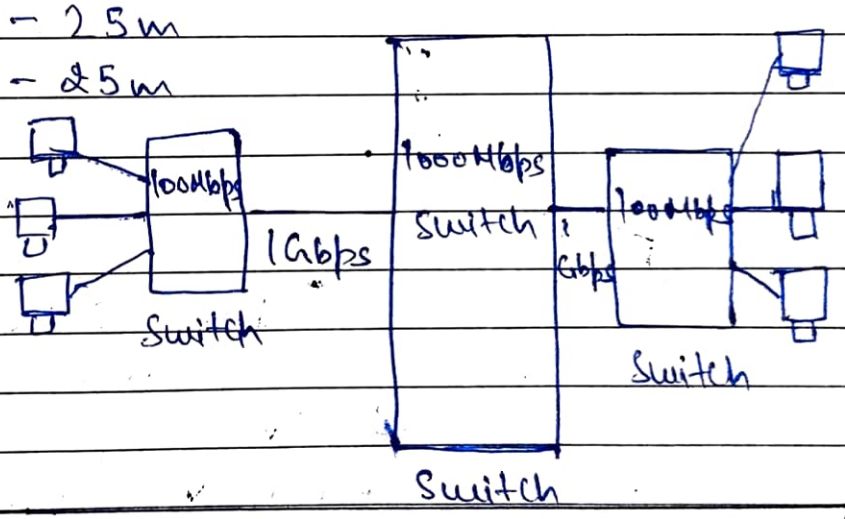
Assignment No. 4

Qu. write notes on -

Ans-

a) Gigabit ethernet :-

- Data rate 1000 Mbps or 1 Gbps.
- Collision domain is reduced.
- Uses optical fibres.
- 4 categories are -
  - 1000 base {SX} uses optical fibres. - 550 m multimode
  - 1000 base {SX} - 550m - 5000m in Monomode
  - 1000 base CX - 25m
  - 1000 base T - 25m

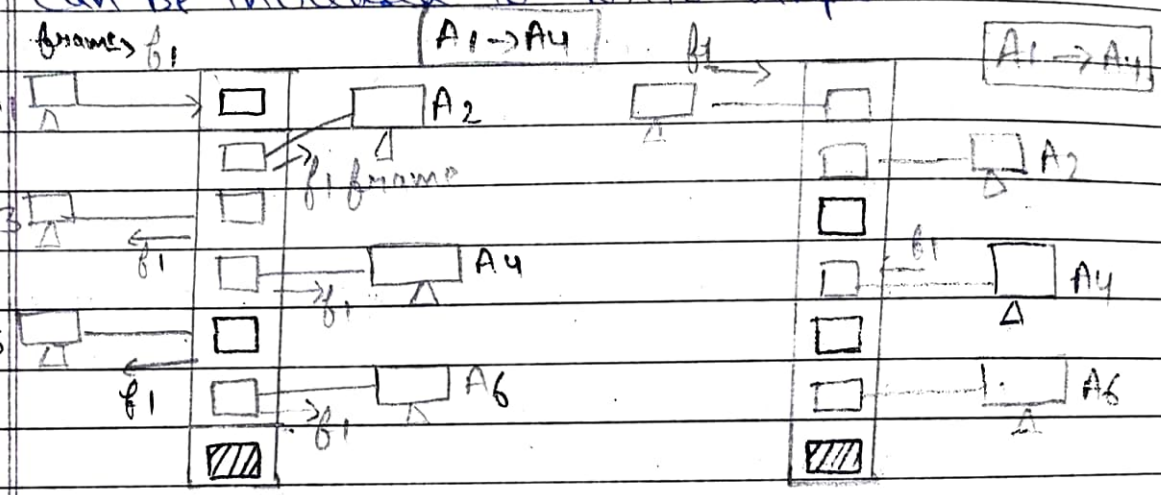


b) Switched ethernet :-

- It replaces HUB of previous methods with switches.
- If devices A1 sends one data frame F_1, then hub will recieve it and sends F_1 to all others devices at a time, hence all cables will remain busy, and hence others will not be able to send any other frame at that time.

To remove this issue,
Switched ethernet came into picture.

- If A1 sends frame to A4, then in switched ethernet, only one one channel i.e from A1 to switch and switch to A4 will be busy and others will be free for any communication.
- So in switch N/w with N-devices, the capacity can be increased to N x 10 Mbps.



(Q) Fast Ethernet :

Fast Ethernet is a variation of Ethernet standards that carry data traffic at 100 Mbps (Mega bits per second) in local area networks (LAN). It was launched as the IEEE 802.3u standard in 1995, and stayed the fastest network till the introduction of Gigabit Ethernet.

Fast Ethernet is popularly named as 100-BASE-X. Here, 100 is the maximum throughput, i.e. 100 Mbps, BASE denoted use of baseband transmission, and X is the type of medium used, which is TX or FX.