Assignment No. 4

Que-1 Write notes on -

Ans -

a) Gigabit Ethernet -

- Data rate 1000 Mbps or 1 Gbps.
- Collision domain is reduced.
- Uses optical fibres.
- 4 categories :
  - 1000 base LX ⎫ uses optical fibres - 550m multimode
  - 1000 base SX ⎭ - 550 m   -5000m in mono-mode
  - 1000 base CX - 25 m
  - 1000 base T - 25 m

b) Switched Ethernet -

- It replaces HUB of privious methods with switches.
- If devices A_1 sends one data frame f_4 then hub will receive it and sends f_1 to all other 5 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.

c) Fast Ethernet -

Fast ethernet is a variation of Ethernet standards that carry data traffic

at 100 Mbps (Mega bits per second) in local area network (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.