

- 4(a) what is Fast Ethernet ? Describe it 3  
 (b) what is Giga Ethernet. 3  
 (c) How does virtual Local Area Network work 8

Answer :-

4(a) :-

for fast emerging software and hardware technology Ethernet extends itself as fast-Ethernet. It uses optical fiber, UTP, etc. Its maximum speed can be upto 100 MBPS. It is named as 100BASE-T in IEEE 802.3 using Cat-5 twisted pair cable. The fiber can be extended upto 100 meters in half-duplex mode and can reach maximum of 2000 meters in full-duplex over multimode fibers.

Q(2):

Giga ethernet was invented in 1995. It is faster than Ethernet. Its speed can be upto 1000 mbits/second. It is used mostly on UTP, Optical Fiber and wireless network all over the world.

Q(3):

Ethernet is used in Local Area Network or accessing shared media. It creates a single Broadcast domain and a single collision domain. Introduction of switches to Ethernet has removed single collision domain issue and each device connected to switch works in its separate collision domain. Switches cannot divide a network into separate Broadcast domain. To divide a single Broadcast domain into multiple broadcast domain virtual LAN can be a solution. Because in one virtual Local area network cannot speak to host in another. Also all hosts are remain into the same virtual Local Area Network.