

of an organisation's network. A subnet may represent all the machines at one geographical place, without subnets, an organisation could not get multiple connections to the internet.

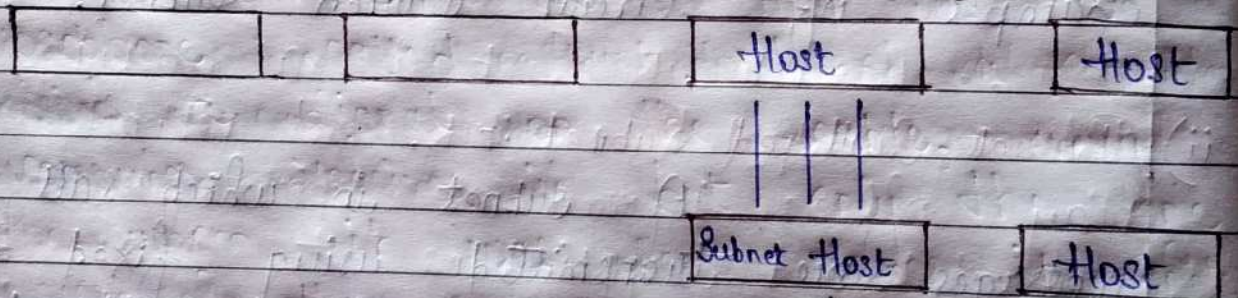
Types of Subnet :-

- i) **Circuit Switched Subnet :-**
A subnet in which a dedicated circuit is established between sender and receiver. In this subnet, all data passes over the circuit. The telephone system is the common example of Circuit Switch Subnet.
- ii) **Packet Switched Subnet :-**
A subnet in which all data messages are transmitted using fixed size package called packets. More efficient use of a tele-communication line since packet from multiple sources can share the medium.
- iii) **Broadcast Subnet :-**
A subnet typically found in Local Area Network but occasionally found in Wide Area Network. A workstation transmit its data to all other workstations that is connected to the network.

in) Communication Subnet:-

A subnet is a logical subtraction of an IP network. Subnet is used to divide a large network into two or more smaller networks, that are easier to manage. A service provider with a large block of IP address creates Subnet so that it can allocate block of IP address to subscribers just like networks on the internet routers.

Class B address before Subnetting



Class B after Subnetting



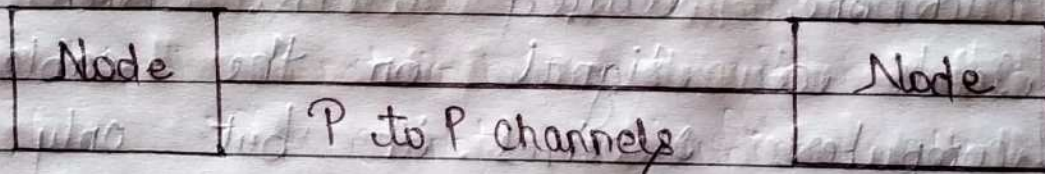
Network Address

In decimal notation, Subnet mask value 1 to 255 represent network address and value 0 represents host address. In binary notation, Subnet mask ON bit (1) represent network address while OFF bit (0) represents host address.

Teacher's Signature

Point-to-Point Channel / Communication :-

A point-to-point line configuration provides a dedicated link between two devices, the entire capacity of channel is reserved for transmission b/w those two devices. Most point-to-point line configuration use an actual length of wire or cable to connect the two ends. But, other position such as Microwave or Satellite links are also possible. When we change television channels by infrared remote control, we are establishing a point-to-point line configuration b/w remote control & television control system.



Topology (Network Topology) :-

A network topology is the arrangement with which computer system or network devices are connected to each other. Topologies may define both physical and logical aspect of the network. Both logical and physical topologies could be same or different in a same network.

Types of Topology :-

These are following types of Topologies :-