5] Routers - A router is a device like a switch that routes data packets based on their IP addresses. The router is mainly a Network Layer device. Routers normally connect LANs and WANs together and have a dynamically updating routing table based on which they make decision on routing the data packets. Router divides the broadcast domains of hosts connected through it.

(Conclusion)
**Result :-** Thus we have studied networking Devices Successfully.

Source Routing Bridges :- In those bridges, routing operation is performed by the source station and the frame specifies which route to follow. The host can discover the frame by sending a special frame called discovery frame.

4] Switch :- A switch is multiport bridge with a buffer and a design that can boost its efficiency and performane. A switch is a data layer link device. The switch can perform error checking before forwarding data, which maks it very efficient as it doesnot forward packets That have errors and forward good packets selectevely to The correct port only. Switch divides The collision domain of hosts, but broadcast domain remains same.

network devices.

3] Bridge :- A bridge operates at the data link layer. A bridge is a repeater, with add on the functionality of filtering content by reading the MAC addresses of source and destination. It also used for interconnecting two LAN's working on the same protocol.

Types of Bridges

Transparent Bridges :- These are the bridge in which stations are completely unaware of the bridge's existance i e wheather or not a bridge is added or deleted from the network, reconfugration of stations is unnecessary.

to find out the best path for data packets which leads to inefficiencies and wastage.

Types of Hub.

Active Hub:- These are the hubs that have their own power supply and can clean, boost, and relay the signal along with the network. It serves both as a repeater as well as a wiring center.

Passive Hub:- These are the hubs which collect wiring from nodes and wire power supply from active hub. These can't be used to extend the distance between nodes.

Intelligent Hub:- It works like active hubs and includes remote managments capabilities. They also provide flexible data rates to

Practical No. 3

Aim :- Familiarization with Networking components and devices "LAN Adapters, Hubs, Switches, routers, etc".

Theory :-

1] Repeater :- A repeater operates at physical layer. Its job is to regenerate the signal over the same network before the signal becomes too weak or corrupted so as to extend the length to which the signal can be transmitted over the same network. They don't amplify the signal. It is a 2 Port device.

2] Hub :- A hub is a basically a multiport repeater. A hub connects multiple wires coming from different branches. Hubs cannot filter data, so data packets are sent to all connected devices. They do not have the intelligence