Question 4(a)

Discuss the tasks performed by LinuxConf Package.

Linux conf is one of the most powerful tools one can use for system administration. One can use Linuxconf for adding and manipulating accounts, monitoring system activities, controlling the way system starts.

Thus, Linuxconf is a powerful package in Linux.

Question 4(b)

Explain the advantages and disadvantages of different LAN topologies.

Following are the advantages and disadvantages of different LAN topologies :-

## Bus Topology :-

Advantages :-

The main advantage of bus topology is that it is quite easy to set up. Any workstation can be easily moved to another location as bus runs throughout the office. Another advantage of bus topology is that if one computer on the bus fails, it does not affect the rest of the traffic on the bus.

Disadvantages :-

A network with bus topology cannot become too big as all the traffic is on the single bus. The entire network can be down only if the bus has a break. The open ends of bus must be terminated to prevent signal bounce. It is difficult for reconfiguration

## Ring Topology :-

Advantages :-

The ring topology is an active topology. Each computer boosts the signal and passes to the next computer till it

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it reaches the destination computer.

Disadvantages :-

Drawback of ring topology is that if a computer fails, the entire network is down. Another drawback is that the traffic is in only one direction.

## Star Topology :-

Advantages :-

All the stations are connected to a central computer or a hub. If a node fails, it does not affect traffic of others.

Disadvantages :-

If the hub fails, entire network is down. Since cable must be connected from each node to the central hub, the length of total wiring required increases very much.

## Mesh Topology :-

Advantages :-

Following are the advantages of mesh topology:

① Use of dedicated links guarantees that each connection can carry its own data load. Thus eliminates traffic problem.

② If one link fails, it does not affect the rest of network. This means it is robust.

③ Point to point links make fault identification and fault isolation easy.

④ Privacy or security is high, since the other link cannot gain access to the dedicated link where the message is travelling.

Disadvantages :-

Following are the major disadvantages of mesh topology:

① More cabling and I/o ports are required, because every node must be connected to every other node.

② Cost is very high, because more number of node and cabling required.

③ Installation and reconfiguration is difficult.