SNS COLLEGE OF ENGINEERING

Coimbatore-35
An Autonomous Institution

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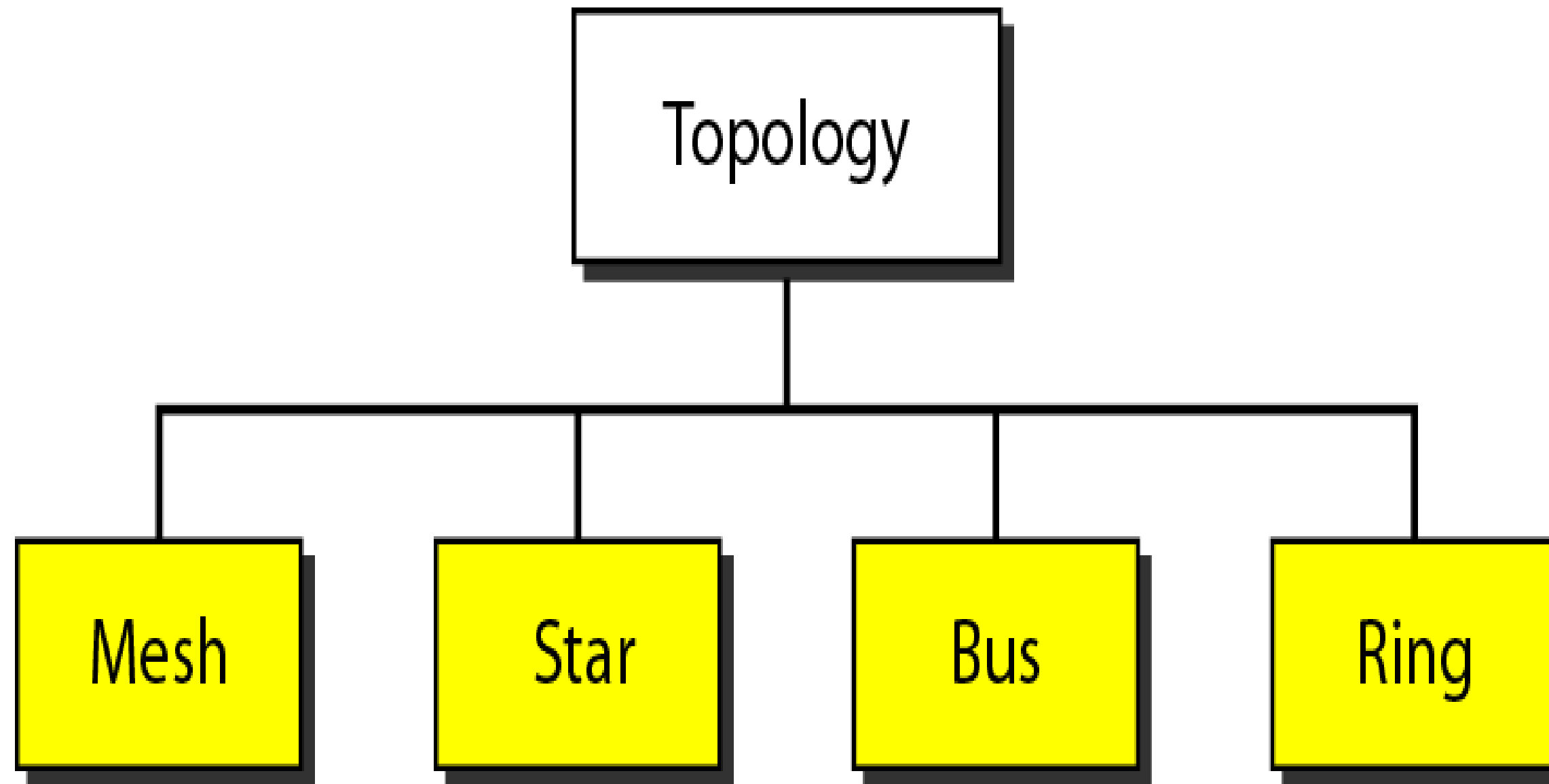
DEPARTMENT OF CSE-IOT

COMPUTER NETWORKS

II YEAR IV SEM
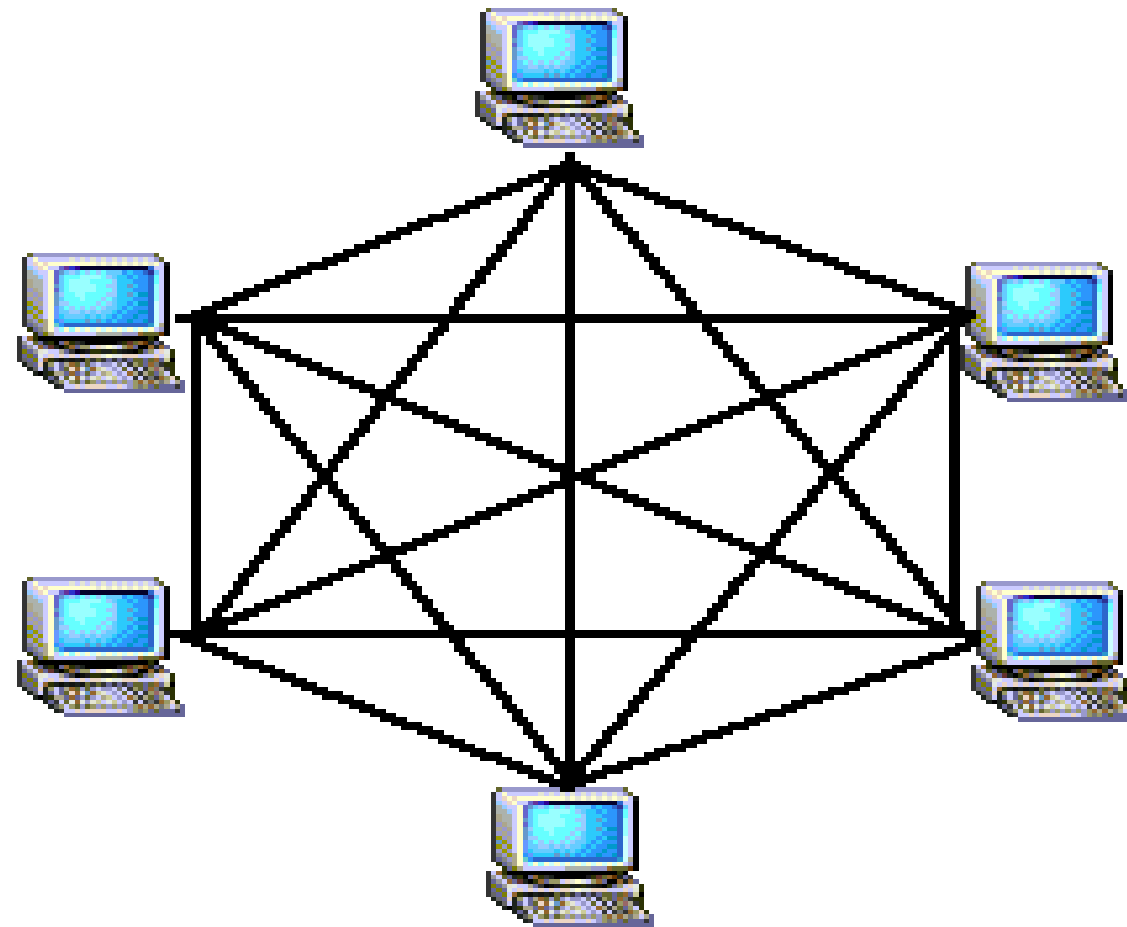
UNIT 1 – FUNDAMENTALS AND PHYSICAL LAYER
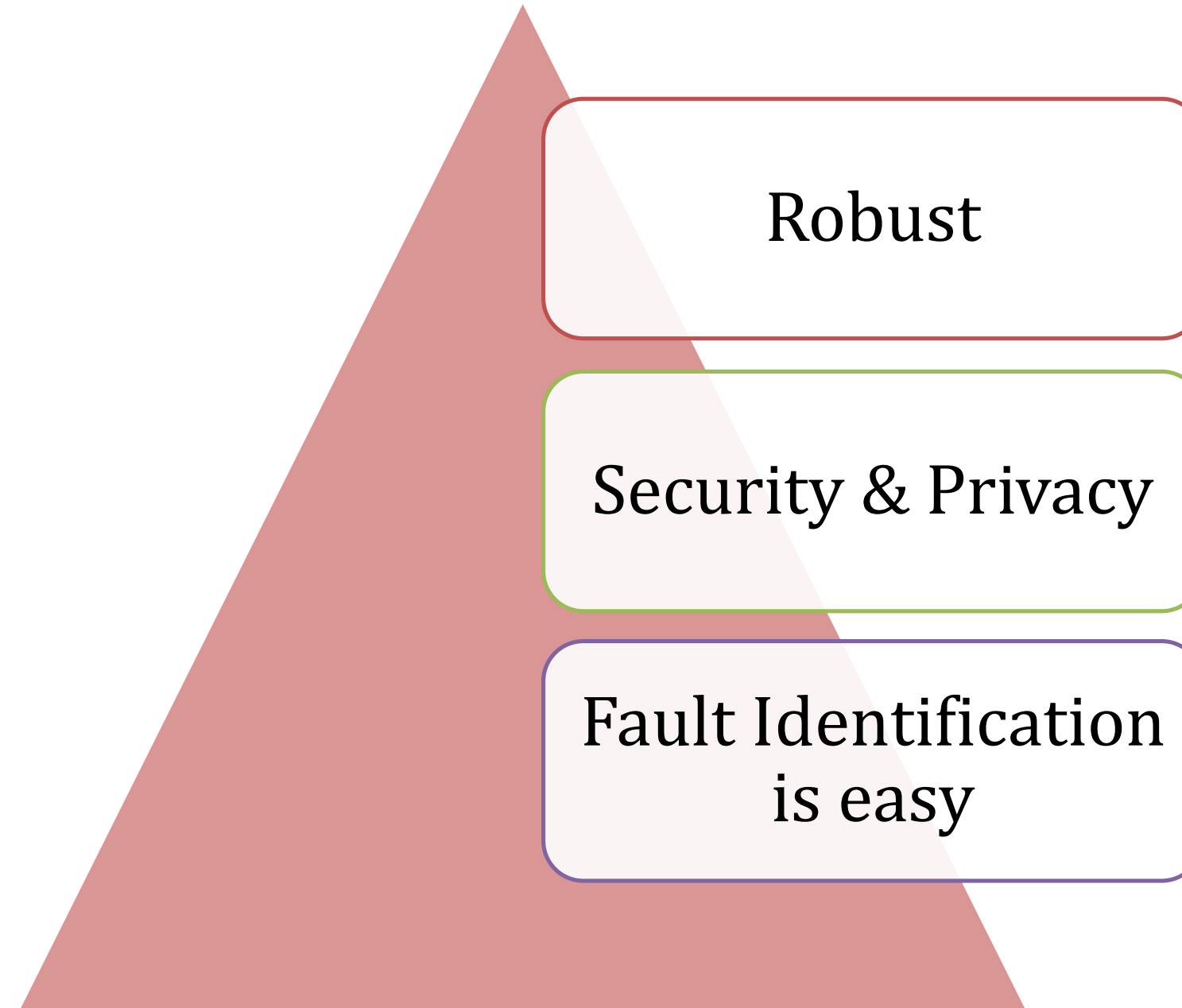
TOPIC 1 –Topologies

Physical Topology

Mesh Topology

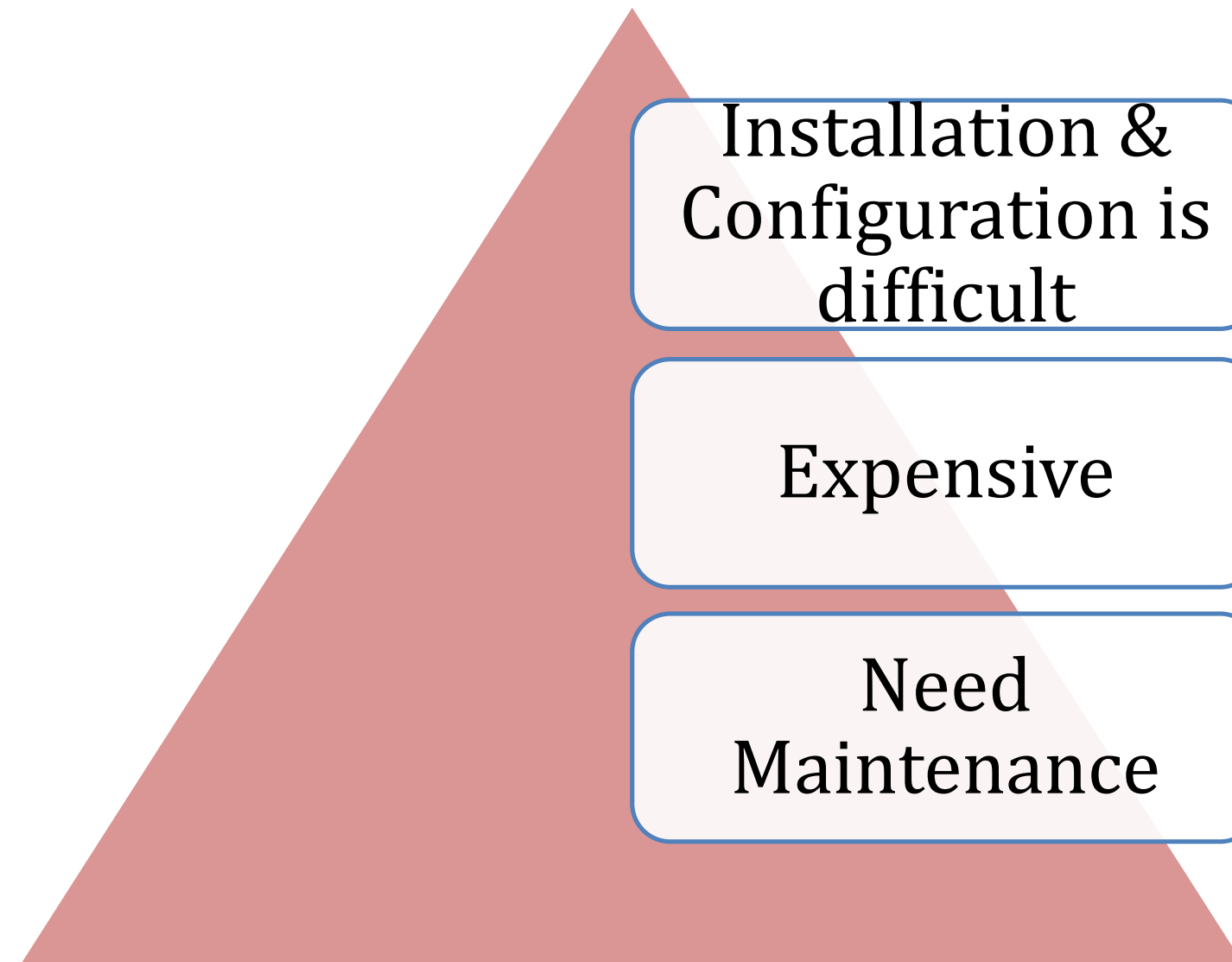In mesh topology, *every device is connected* to another device via particular

Channel.

Topologies/Computer Networks /SANGEETHA.K/IOT

Advantages

Robust

Security & Privacy

Fault Identification is easy

Topologies/Computer Networks /SANGEETHA.K/IOT

Disadvantages

Installation & Configuration is difficult

Expensive

Need Maintenance
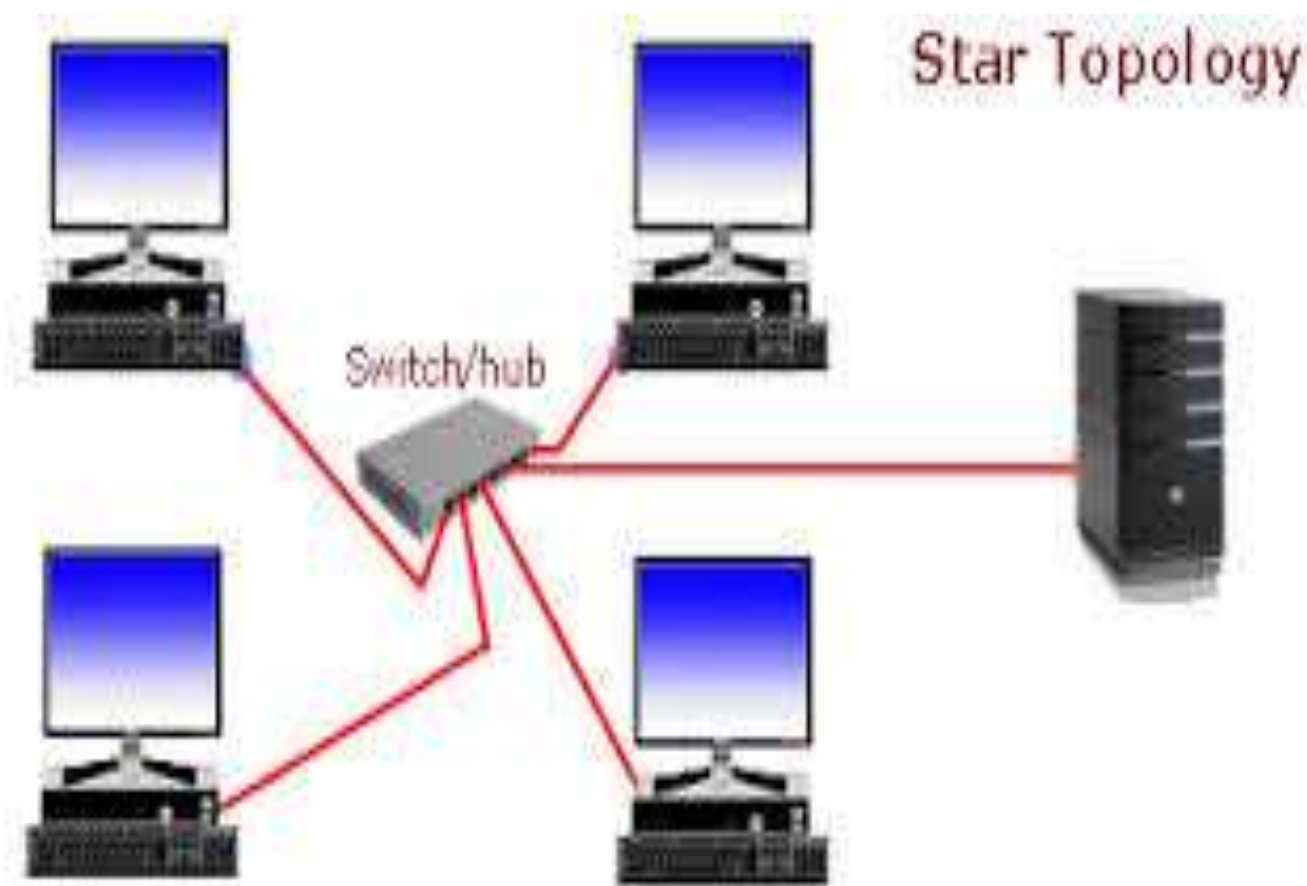
Star Topology

In star topology, all the devices are connected to a *single hub* through a cable. This hub is the central node and all others nodes are connected to the central node.

Star Topology

Advantages

Easy to set up

Each device
require one port

Disadvantages

Hub fails entire system will crash

Cost of Installation is high

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Bus Topology

Bus topology is a network type in which every computer and network device is connected to *single cable*. It transmits the data from one end to another in single direction. No bi-directional feature is in bus topology
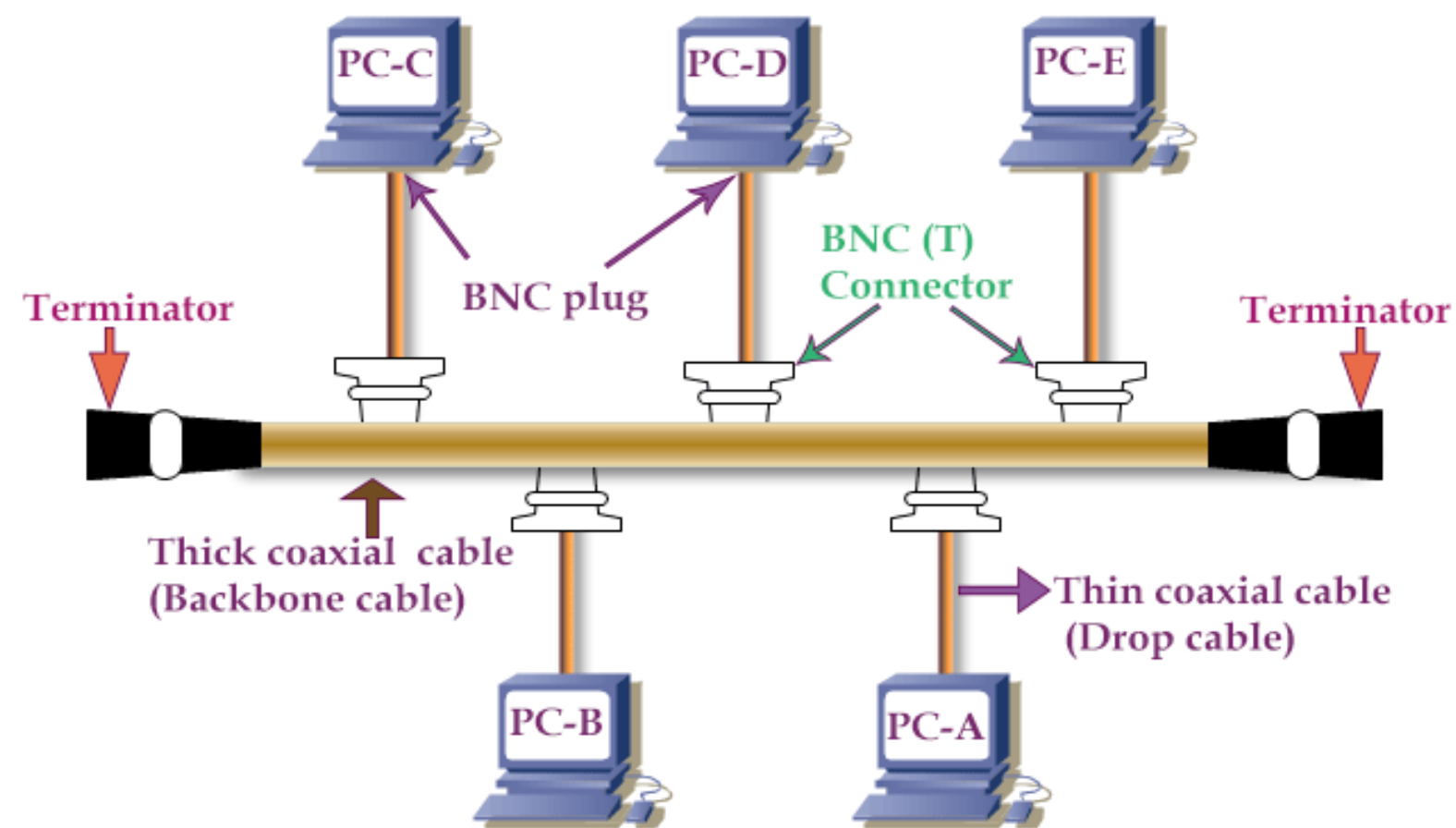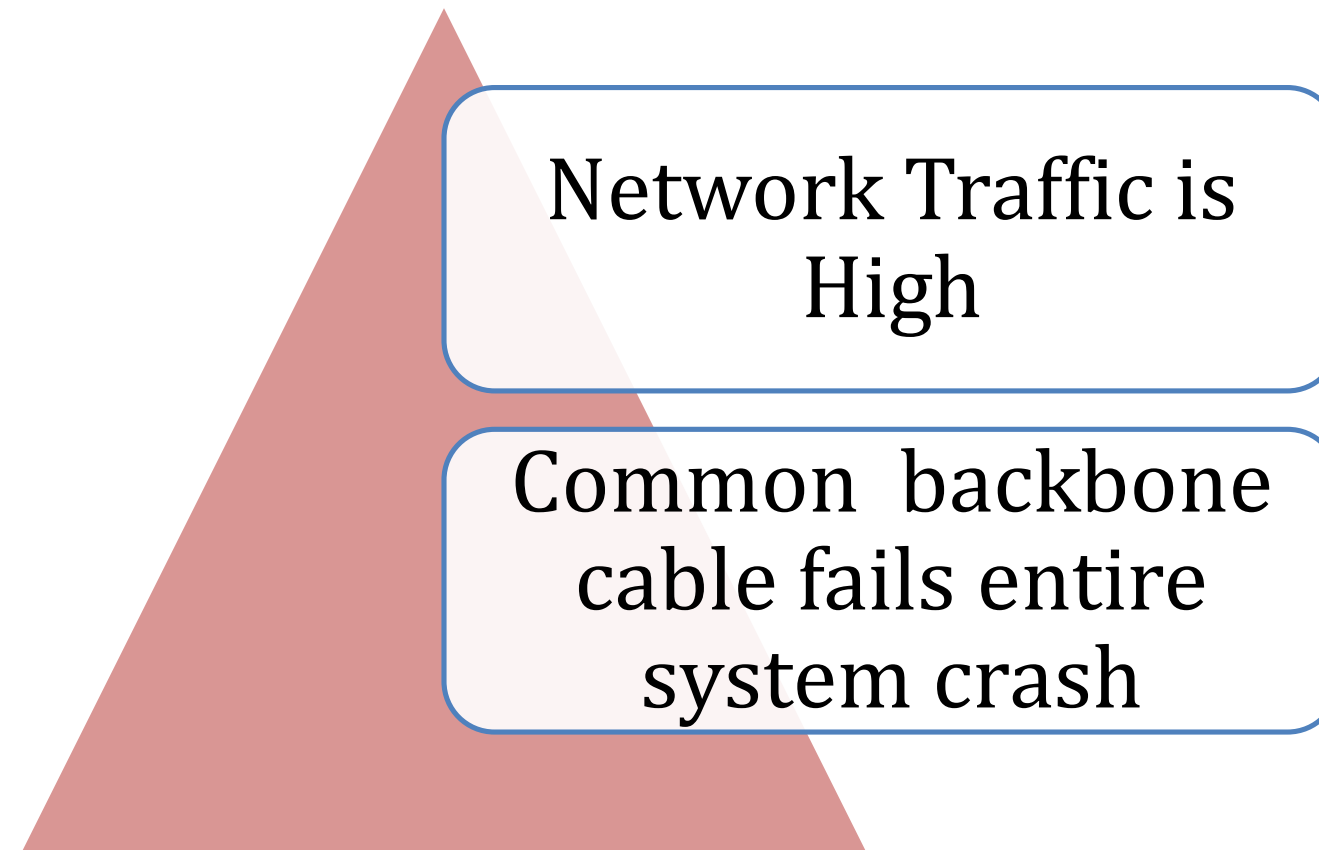
Advantages

Cost of Cabling is less

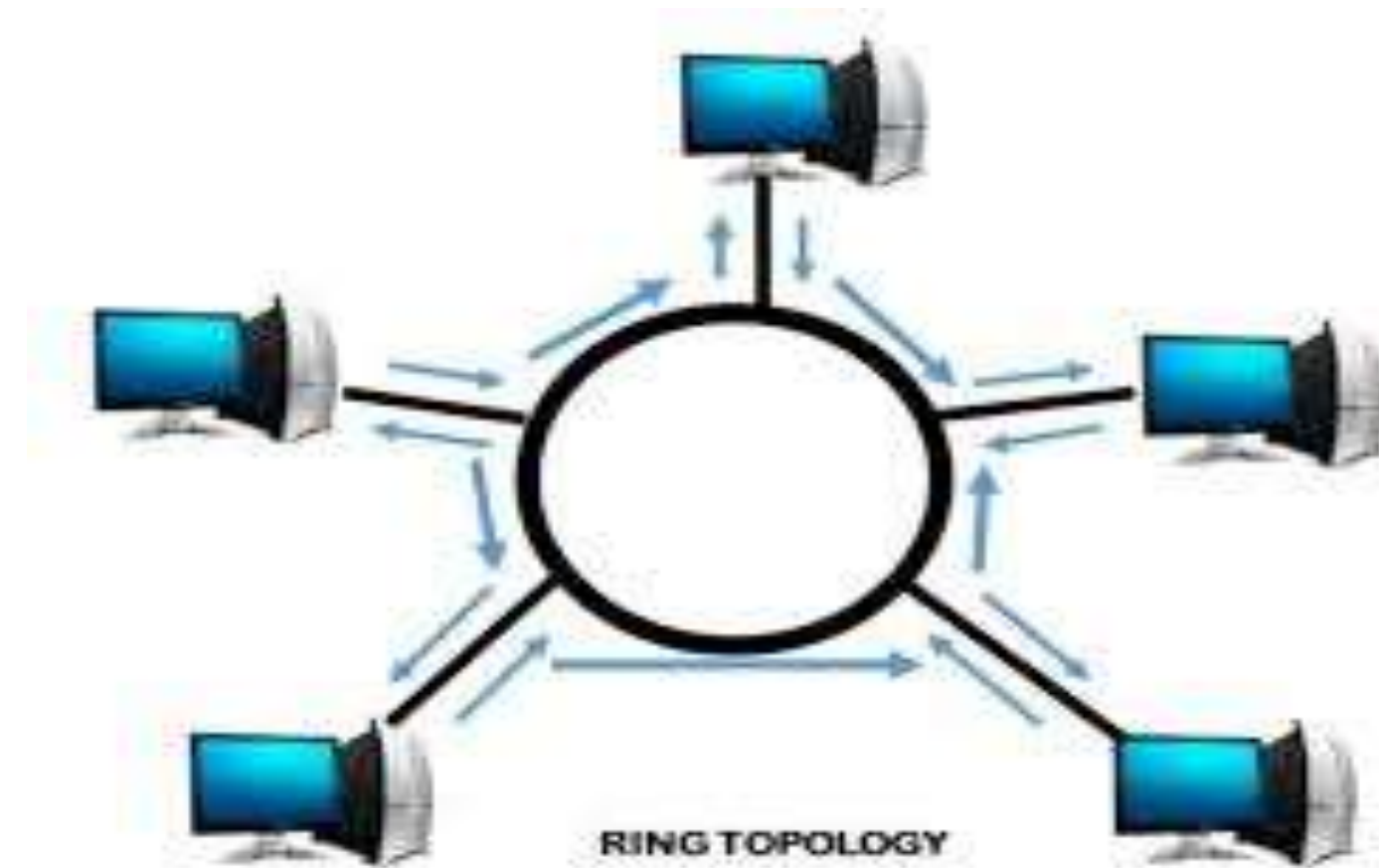Common backbone cable used to connect

Disadvantages

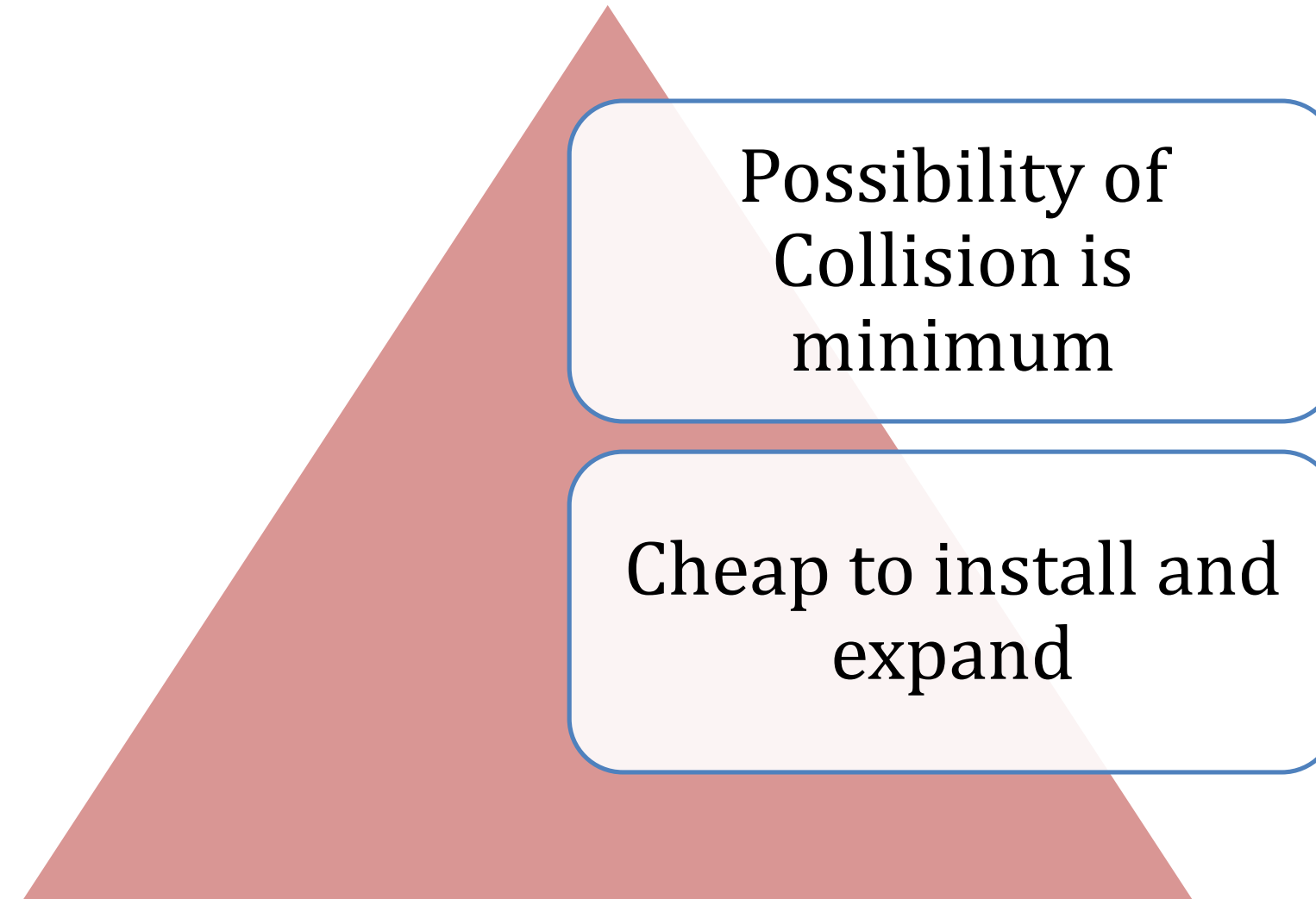Network Traffic is High

Common backbone cable fails entire system crash

Ring Topology

In this topology, it forms a *ring connecting a devices* with its exactly *two neighboring* devic

RING TOPOLOGY

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Advantages

Possibility of Collision is minimum

Cheap to install and expand

Disadvantages

Troubleshooting is difficult

Inserting and deletion of node is difficult

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- 1. A _____ is a device that forwards packets between networks by processing the routing information included in the packet.

- 2. Physical or logical arrangement of network is _____.

- 3. _____ topology requires a multipoint connection.

Thank You