



# VIDYA BHAWAN BALIKA VIDYAPITH

SHAKTI UTTAN ASHRAM, LAKHISARAI

INFORMATION TECHNOLOGY FOR CLASS 11

(Study materials based on N.C.E.R.T)

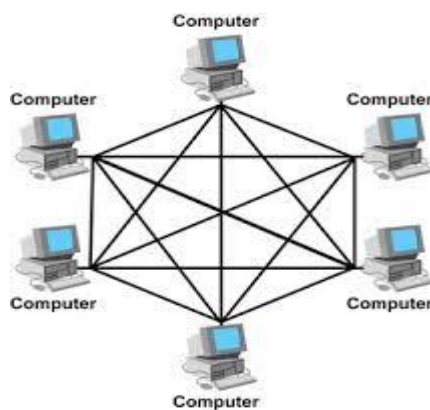
RAUSHAN DEEP

DATE:-17/09/2020(WEDNESDAY)

## UNIT -2 NETWORKING AND INTRNET

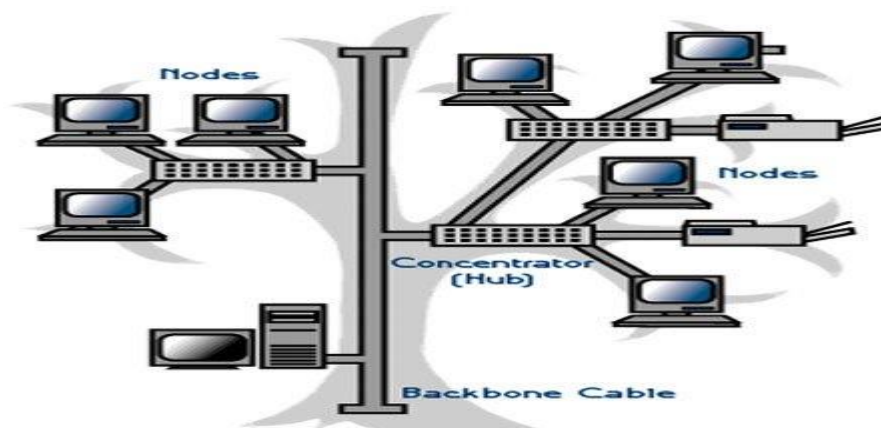
### Topology:

- ❖ **Mesh Topology:** In mesh topology, every node is connected with every other node in the network. Because dedicated point to point connection between every possible pair of nodes, the topology provides secure data transfer without any traffic problem. It requires a large number of connections establish the topology. This leads to difficulty in installation as the number of nodes as the network grows.



Mesh Topology

- ❖ **Tree Topology:-** Tree Topology is a hybrid topology using combination of star and bus topology. Backbone cable in a bus topology acts like the see of tree, and star networks(and even individual nodes) are connected to the main backbone cable like the branches of tree. Damage to a segment of a network laid using tree topology will not affect other segments. Installation and configuration is difficult as compared to other topologies. Also if the backbone cable is damaged, entire connection is interrupted.



Tree Topology

### Advantage and Disadvantage of Tree Topology:

<b>Advantage</b>	<b>Disadvantage</b>
<ul style="list-style-type: none"><li>• Scalable as leaf nodes can accommodate more nodes in the hierarchical chain</li></ul>	Huge cabling is needed
<ul style="list-style-type: none"><li>• A point to point wiring to the central hub at each intermediate node of a tree topology represents a node in the bus topology</li></ul>	A lot of maintenance is needed
<ul style="list-style-type: none"><li>• Other hierarchical networks are not affected if one of them gets damaged</li></ul>	Backbone forms the point of failure
<ul style="list-style-type: none"><li>• Easier maintenance and fault finding</li></ul>	

**RAUSHAN DEEP**

PGT (IT)  
17/09/20XX