COMP network

1.What is the range of addresses in the classes of internet addresses?

1,The range of addresses in the classes of internet addresses refers to the address space allocated to different classes of IP addresses. There are three primary classes: Class A, Class B, and Class C. Their address ranges are as follows:

- Class A: 0.0.0.0 to 127.255.255.255
- Class B: 128.0.0.0 to 191.255.255.255
- Class C: 192.0.0.0 to 223.255.255.255

2.What are the important topologies for networks?

2.
Important topologies for networks include:

- Bus Topology
- Star Topology
- Ring Topology
- Mesh Topology
- Hybrid Topology

3. 3. What is a gateway or Router?

A gateway or router is a device that connects different networks together. It acts as an intermediary between devices on different networks, directing traffic between them based on routing tables. Routers operate at the network layer (Layer 3) of the OSI model.

4. 4. What are the criteria necessary for an effective and efficient network?

The criteria necessary for an effective and efficient network include:

- Reliability: The network should be dependable and function consistently.
- Performance: The network should provide adequate speed and bandwidth for the intended use.
- Security: The network should be protected against unauthorized access and malicious activities.
- Scalability: The network should be able to accommodate growth and increased demand.
- Manageability: The network should be easy to monitor, configure, and maintain.
- Flexibility: The network should support various types of devices and technologies.
- Cost-effectiveness: The network should provide good value for the investment made in its infrastructure and maintenance.

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5. 5. Define the terms Unicasting, Multiccasting and Broadcasting?

- Unicasting: Unicasting refers to the transmission of data from one sender to one receiver. It is a one-to-one communication method.
- Multicasting: Multicasting refers to the transmission of data from one sender to multiple specific recipients who have joined a multicast group. It is a one-to-many communication method.
- Broadcasting: Broadcasting refers to the transmission of data from one sender to all devices on the network. It is a one-to-all communication method.