CSE307 VIVA

1. hub, switch and router

2. network topologies: ring,star,mesh,bus,hybrid

their advantages and disadvantages

3. cli commands

ipconfig, ping , arp, netstat, nslookup

4. static routing and dynamic routing

5. router cli commands, ipv4 and ipv6 routing

static

Ip route 10.0.0.0 255.0.0.0 11.11.11.2

dynamic

Router rip

Network 10.0.0.0

6. ipv4 and ipv6 address

Ipv4—192.10.98.8

7. classful and classless addressing

192.168.1.0/24

8. flsm and vlsm

9. server

Cli commands

- **ipconfig:** Displays the IP address, subnet mask, and default gateway.

- **ping:** Tests connectivity to another device.

- **tracert:** Traces the path to a destination IP address.

- **arp:** Displays and modifies the Address Resolution Protocol cache.

- **netstat:** Shows active network connections.

- **nslookup:** Queries the DNS to resolve domain names to IP addresses

1. **Class A:**

   - Range: 0.0.0.0 to 127.255.255.255

   - Default Subnet Mask: 255.0.0.0 (/8)

   - Suitable for networks with a **large number of hosts**.

   - Supports ~16 million hosts per network.

2. **Class B:**

   - Range: 128.0.0.0 to 191.255.255.255

   - Default Subnet Mask: 255.255.0.0 (/16)

   - Suitable for **medium-sized networks**.

   - Supports ~65,000 hosts per network.

3. **Class C:**

   - Range: 192.0.0.0 to 223.255.255.255

   - Default Subnet Mask: 255.255.255.0 (/24)

   - Suitable for **small networks**.

- Supports 256 hosts per network.

4. **Class D:**
    - Range: 224.0.0.0 to 239.255.255.255
    - Reserved for **multicasting**.

5. **Class E:**
    - Range: 240.0.0.0 to 255.255.255.255
    - Reserved for **experimental use**.