Networking Scenario Questions

1. **Scenario:** A user cannot access the internet. You ask them to check if the network cable is plugged in, and they confirm it's not.

   Question: Which OSI layer does this issue relate to, and why?

2. **Scenario:** You can successfully ping a website by IP address, but not by name (e.g., www.google.com).

   Question: Identify the OSI layer(s) involved and explain what might be wrong.

3. **Scenario**: A user's PC can access shared folders on the network but cannot print to a shared printer.

   Question: Which OSI layers would you examine, and what tools might you use?

4. **Scenario:** Two computers connected to the same switch cannot communicate with each other. You check and find that both are on different VLANs.

   Question: What OSI layer is related to VLAN configurations and why?

5. **Scenario:** While troubleshooting a network outage, you find that ARP is not resolving IPs to MAC addresses.

Question: What OSI layers are involved, and how would you approach solving this?

6. **Scenario:** An FTP server is running, but users cannot download files—they receive connection reset errors.

   Question: Which OSI layers would you investigate and what are possible causes?

7. **Scenario:** You receive reports of intermittent latency during VoIP calls. Network pings are stable, but audio quality fluctuates.

Question: Which layers of the OSI model are responsible for the issue, and how would you troubleshoot it?

8. **Scenario:** You are performing packet captures and notice malformed packets and frame errors on a specific interface.

Question: At which OSI layer does this problem exist, and what could be the physical or logical cause?

9. **Scenario:** A user says, “I can't connect to the internet,” but others can.

Question: List the basic troubleshooting steps you would follow, and which tool(s) you would use at each step.

10. **Scenario:** You run ipconfig on a user's machine and see 169.254.x.x as the IP address.

Question: What does this indicate, and how would you fix it?

11. **Scenario:** A user reports, "I can access Google.com, but not my company's internal web application."

Question: What does this tell you about the issue? Which component(s) should you check?

12. **Scenario:** The network cable is connected properly, but the NIC shows "No Internet Access".

Question: What are possible reasons for this issue? How would you verify the root cause?

13 .Scenario: Users from a specific floor are unable to access the network, while others are fine.

Question: How would you narrow down the issue? What network components would you check and in what order?

14.Scenario: You are able to ping a remote server by IP, but not by hostname.

Question: Identify potential causes and the commands you would use to verify each.

15.Scenario: One of the switches in your network is reporting high collision and CRC errors.

Question: What are common reasons for this, and how would you resolve it?

16.Scenario: After assigning a static IP to a device, it stops accessing the network.

Question: What possible misconfigurations should you check?

17.Scenario: You receive a report of random packet drops in a multi-switch network.

Question: How would you isolate the problem? Which tools or logs would help in root cause analysis?

18.Scenario: You've configured a new VLAN, but devices in that VLAN cannot reach the internet.

Question: What configurations should you verify to fix the issue?

19.Scenario: Users are reporting latency while accessing a cloud-hosted app, but the internal network seems fine.

Question: What steps would you take to determine whether the issue is internal or external?

20.Scenario: A network topology change caused a broadcast storm.

Question: What could have caused this? How would you prevent such issues in the future?

Routing & Switching Scenarios

1.Scenario: A newly added switch is **not forming an adjacency** with the core switch. How will you troubleshoot?

2.Scenario: A new VLAN is created, but devices in that VLAN **cannot communicate**. What steps will you take?

3.Scenario: Your OSPF network is experiencing **frequent route flapping**. What are the possible causes?

4.Scenario: A **spanning tree loop** has caused the network to slow down. What immediate action should you take?

5.Scenario: You need to implement **port security** on access switches. What configuration will you apply?

6.Scenario: A newly added OSPF router **is not advertising its network**. What will you check?

7.Scenario: You need to implement **route summarization** in an EIGRP network. How will you configure it?

8.Scenario: Users in **different VLANs cannot communicate**. How will you fix this?

9.Scenario: A new access point is unable to communicate on the correct VLAN. What troubleshooting steps will you follow?

10.Scenario: You need to **restrict a VLAN to specific interfaces**. How will you configure this?

11.Scenario: You need to configure **ACLs to allow only SSH and block Telnet** on a router. What commands will you use?

12.Scenario: A new switch was added, but users connected to it **cannot access the network**. What steps will you take to troubleshoot?

13.Scenario: Your router's **interface is up, but you cannot ping the next-hop router**. What could be the issue?

14.Scenario: Users are complaining about **slow network performance** in a specific VLAN. How will you diagnose the problem?

15.Scenario: A new network has been set up, but devices in different subnets **cannot communicate**. What will you check?

1.Scenario:
You are configuring a network for a small office with 20 computers. The switch has been configured with VLAN 10 for the office network. You need to assign each computer to the same VLAN and enable communication within the VLAN.

Question:
Which of the commands will assign the computers to VLAN 10 and allow communication?

Scenario:
You have a switch that is experiencing security issues, with unauthorized devices connecting to the network. You need to secure the switch by ensuring only authorized devices can connect to the ports.

Question:
What should you configure on the switch to secure the access ports and allow only one device per port?