// LOKESH PANCHAL //

Module 8: Network Access

• Beginner Question

**1.** Explain Switch. **Ans.** A switch is a networking device that connects devices on a local area network (LAN). It receives data packets and forwards them to the appropriate destination device. It's like a traffic controller for network traffic.

**2.** Explain Switch Boot Sequence **Ans.** When a switch is powered on or restarted, it goes through a boot sequence where it performs self-tests, loads the operating system, and initializes its interfaces. It's like the switch waking up and getting ready to work its networking.

**3.** Explain Three Methods to access Switch Command Line Interface **Ans.** Here are three simple methods to access the switch command line interface: 1. Telnet: You can use Telnet to remotely connect to the switch's command line interface. 2. SSH: Secure Shell (SSH) provides a secure way to access the switch's command line interface over a network. 3. Console cable: You can directly connect to the switch using a console cable and access the command line interface.

**4.** Explain and Configuring the Cisco Internet Operating System **Ans.** Cisco IOS is the operating system on Cisco devices like routers and switches. To configure: Access the device via console or SSH. Use commands to set a hostname (hostname [name]) or interface settings (interface [type][number]). Configure routing with protocols like **OSPF (router** OSPF [process-id])and save changes with **write memory.**

5. Explain Switch Port Ans. A switch port is a physical interface on a network switch where devices like computers, printers, or These ports operate at the data link layer, using MAC addresses to forward data within a local network. Switch ports can be configured for specific settings like speed, duplex mode, and VLAN assignment, enabling network segmentation and performance optimization.

4-R1, R2, R3, and R4 have their Fast Ethernet 0/0 interfaces attached to the same VLAN. A network engineer has typed a configuration for each router by using a word processor. He will later copy and paste the configuration into the routers. Examine the following exhibit, which lists configuration for the four routers, as typed by the network engineer. Assuming that all four routers can ping each other’s LAN IP addresses after the configuration has been applied, choose the routers that will be able to form a neighbor relationship with the other routers on the LAN. (You can assume that, if not shown in the exhibit, all other related parameters are still set to their defaults.) (Choose two)

A. R1 B. R2 C. R3

D. R4 E. None of the routers will exchange routing information.

**Ans.** A. R1 B. R2

**3** -enable secret [password] is hashed using the algorithm.

A. MD5 B. AH

C. PSK D. ESP E. WPA2

**Ans.**   **MD5**

**4-** An engineer connects to Router R1 and issues a show ip ospf neighbor command. The status of neighbor 2.2.2.2 lists FULL/BDR. What does the BDR mean?

A. R1 is an Area Border Router. B. R1 is a backup designated router. C. Router 2.2.2.2 is an Area Border Router. D. Router 2.2.2.2 is a backup designated router.

**Ans. D. Router 2.2.2.2 is a backup designated router.**

**5-**Which command is used to view the neighbor discovery table on a PC?

A. show ipv6 neighbor B. show ipv6 neighbors C. netsh interface ipv6 show neighbor D. netsh interface ipv6 show neighbors

**Ans. C. netsh interface ipv6 show neighbor**

**6-**What type of variable is being shown? Routers = [R1,R2,R3]

A. List B. Dictionary C. Simple D. Unsigned integers

**Ans. A. List**

**7-** Identify the fields in an IPv4 header. (Choose three)

A. Host component B. Time to Live

C. Source address D. Destination address E. Network address

**Ans.** **B. Time to Live C. Source address D. Destination address**