Module- 8 CCNA - Vlans And Inter-Vlan Routing

1.Explain Switch

ANS: A switch is operated at layer-2 of osi model.It is used to connect multiple end devices (computer,server,Printer,etc.). It uses MAC address for forwarding the frame. It works on full-duplex mode. It supports VLAN for logical boundary.

Working of switch:

- One device send frame to switch , it look for destination MAC address
- Look it up in MAC table and send to that device.
- If it dosent found on MAC table then it broadcast to all port excluding source port

2. Explain Switch Boot Sequence

ANS: When a switch is powered on or restarted, it goes through the following steps:

I. POST: The switch ensures that everything(RAM,CPU,PORTS) is working.
II. BOOTSTRAP: It locate the IOS in ROM .
III. IOS:Loads IOS from flash to RAM.
IV. LOAD STARTUP CONFIG: The switch looks for a startup-config file in NVRAM. If found, it loads the configuration.

3. Explain Three Methods to access Switch Command Line Interface

ANS: There are three mothods to access switch that are described following:

I. Console Access:Switch is accessed physically through console cable (RJ45) using putty software.
II. Telnet: It allows CLI access over network.
III. SSH: It is protocol that allows secure connection over network .

4. Explain and Configuring the Cisco Internet Operating System

ANS: There are four mode for configuring cisco ISO:

I. User executive mode : It provide view only
II. Privilleged execitive mode : use enable command to access privileged mode. Here we can view all commands loike show configuration etc,.
III. Global configuration mode : use configure terminal command to Global configuration mode. Here we configure hostname , passwords, protocols, and remote servicies etc.
IV. Interface configuration mode: Here we can configure ip address, subnet etc.

5. Explain Switch Port

ANS: A switch port is a physical interface (connector) on a network switch where you can plug in a device using an Ethernet cable.

There are three types of switch port:

I. Access port : Allows single VLAN traffic.
II. Trunk port : Allows multiple VLAN traffic
III. Dynamic Port: Dynamic port that automatically negotiates its role(auto and desirable) and it is used in DTP.

6. 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

7. Enable secret [password] is _____hashed using the algorithm.

A. MD5
B. AH
C. PSK
D. ESP
E. WPA2

8. 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.

9. 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

10. What type of variable is being shown? Routers = [R1,R2,R3]

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

11. 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