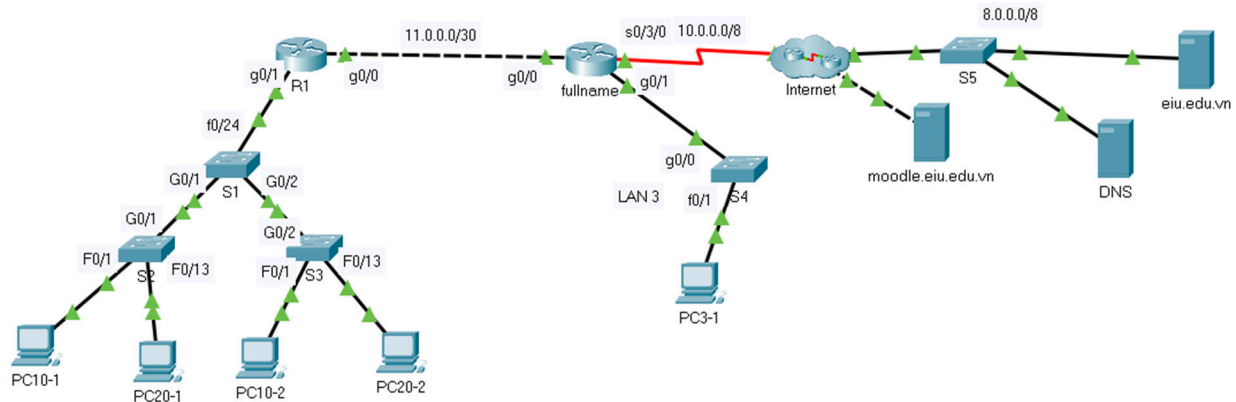


Question 1 (20 marks):

Complete the network diagram and basic configuration on R1:

a. Add the devices to complete the network diagram as shown:



b. The device name is R1, the user mode password is eiu, the privileged mode password is cisco, and the encrypted privileged mode password is iteiu. Encrypt all passwords.

c. Configure the banner for R1 as "This is R1".

d. Save the configuration from running-config to startup-config.

e. Router fullname: Configure host name is YourFullName.

Question 2 (20 marks): Configure VLAN on S1, S2, and S3:

a. Create VLAN 10 and VLAN 20 with corresponding names (VLAN 10: Teacher; VLAN 20: Student).

b. On S2 and S3, assign the corresponding ports to VLANs (VLAN 10: Fast Ethernet 0/1-12; VLAN 20: Fast Ethernet 0/13-24).

c. Create a Trunk link on the switches: S1 (g0/1, g0/2, f0/24), S2 (g0/1), S3 (g0/2).

Question 3 (20 marks): Configure IP:

a. Using the 192.168.1.0/24 network, divide this network into subnets to provide IPs for the networks in the diagram in the order (VLAN 10, VLAN 20, LAN 3).

b. Assign IPs to the devices (including IP, subnet mask, and default gateway), the IP addresses are described in the following table:

Device	Port	Address description
R1	G0/1.10	First ip
PC10-1	NIC	Second
PC10-2	NIC	Third ip
S1	VLAN 10	Last 3 IPs (ip S1<ip S2< ip S3)
S2	VLAN 10	
S3	VLAN 10	
R1	G0/1.20	First ip
PC20-1	NIC	Second
PC20-2	NIC	Third ip
R1	G0/0	First ip

Question 4 (20 marks): Configure routing:

- Configure subinterfaces on R1 as g0/1.10 and g0/1.20 corresponding to 2 VLANs (10 and 20).
- Configure the default route on the router fullname to go out through the port s0/3/0.
- Configure EIGRP routing on fullname and R1

Question 5 (20 marks): Configure services:

- Configure DHCP on fullname to assign dynamic IPs to PCs in LAN3, with DNS settings as the DNS server IP (8.0.0.8), the first IP in this network (this IP is used for the router port).
- Check dynamic IP assignment on PC3-1 and try accessing eiu.edu.vn to check internet connectivity.
- Configure HTTP and HTTPS services on eiu.edu.vn and DNS service on the SND server