**REPORT FOR LAB 03**

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**5.3.1 Connecting two LANs using routers**

**Question 1 (1 pt):** Assign suitable IP address to sg-workstation, hn-workstation and network interfaces of routers. Fill these addresses into the network topology.

IP of hn-workstation: 192.168.1.12 Mask: 255.255.255.0

IP of sg-workstation: 192.168.2.6 Mask: 255.255.255.0

IP of Hanoi-eth0: 192.168.1.1 Mask: 255.255.255.0

IP of Hanoi-eth1: 10.10.1.1 Mask: 255.255.0.0

IP of Saigon-eth0: 10.10.2.1 Mask: 255.255.0.0

IP of Saigon-eth1: 192.168.2.1 Mask: 255.255.255.0

*Fill the address below.*

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Figure 1: Network topology.

**Question 2 (1 pt)**: Enable the network interfaces of workstations and assign the IP address as specified in Question 1 using the ifconfig statement. The commands to use are:

On hn-workstation:

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On sg-workstation:

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**Question 3 (1 pt)**: Setup routing rules on workstations

Use route –n to check the routing table

Use route add to add a new route to a distance network.

Write down the command to be executed on **hn-workstation** to forward data to Saigon network:

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Write down the command to be executed on **sg-workstation** to forward data to Hanoi network:

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**Question 4 (1 pt):** Execute the command to set the IP address for the interfaces connected to the LAN of the Hanoi router:

interface GigabitEthernet0/0/0

ip address 192.168.1.1 255.255.255.0

And Saigon router:

interface GigabitEthernet0/0/0

ip address 192.168.2.1 255.255.255.0

Execute the command to set IP address for the interfaces connected to the leased line of the Hanoi router:

interface GigabitEthernet0/0/1

ip address 10.10.1.1 255.255.0.0

And Saigon router:

interface GigabitEthernet0/0/1

ip address 10.10.2.1 255.255.0.0

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Hanoi router’s interfaces config table

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Saigon router’s interfaces config table

**Question 5 (1 pt):**

Execute the command on the Hanoi router to add the routing rule to destinations in Saigon network (this is cisco command):

ip route 192.168.2.0 255.255.255.0 10.10.2.1A screenshot of a computer program

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Hanoi router’s routing table

Execute the command on the Saigon router to add the routing rule to destinations in Hanoi networks:

ip route 192.168.1.0 255.255.255.0 10.10.1.1

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Saigon router’s routing table

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Ping from Hanoi to Saigon

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Ping from Saigon to Hanoi