

United International University (UIU)

Department of CSE

Computer Networks

Summer 2022 - Lab Mid Exam Set-5

Marks: 20

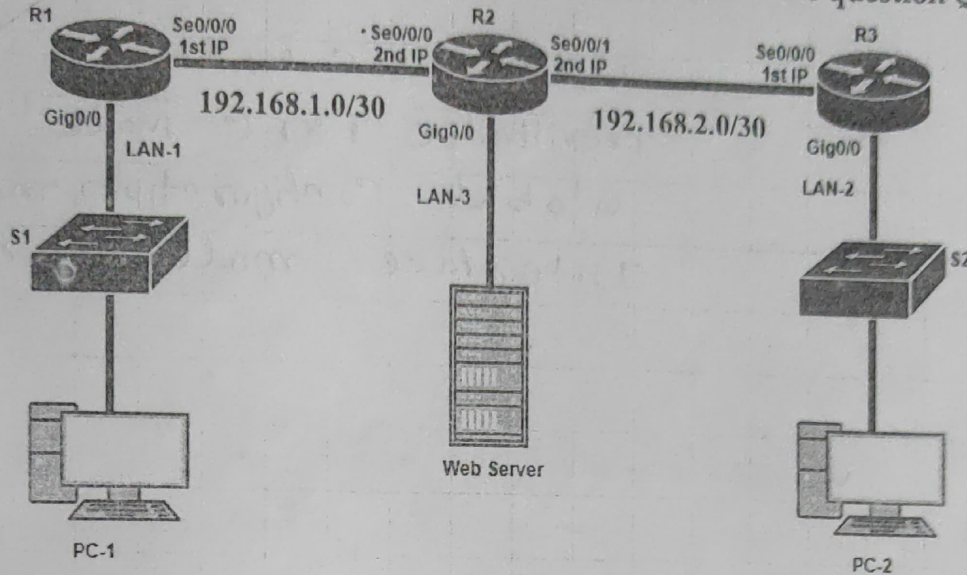
Time: 30 minutes

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Refer to the following diagram and Network Address answer the question Q1 to Q5,



Address: LAN-1: 192.168.1.64/26, LAN-2: 192.168.2.32/28, LAN-3: 192.168.3.16/29

Q1. What is the default gateway for the Web Server?

Answer: 192.168.3.17 ✓

[1]

Q2. Write down the IP Address and Subnet Mask of PC-2.

Answer: SM - 255.255.255.255 255.255.255.240 SM
192.168.2.33 ✓

[1]

Q3. Find the IP addresses of Gig0/0 and Se0/0/0 in R1 Router?

Answer: Se 0/0/0 → 192.168.1.1 ✓
Gig 0/0 → 192.168.1.65 ✓

[1]

Q4. Write the subnet mask of LAN-2 and how many possible host in this Subnetwork? [2]

Answer: 255.255.255.240 ✓ 2⁴ - 2 = 14

Q5. If you configuring Static Routing in R1, Write down the Destination networks and Next Hop IP Addresses. [2]

Answer: Destination: 192.168.3.18, 192.168.1.66,
192.168.2.33
Next Hop IP: 192.168.1.2 ✓

Q6. Which network addresses should you use to configure RIP for the router R2? [2]

Answer:

Router rip

net 192.168.1.0 ✓

net 192.168.2.0 ✓

net 192.168.3.16 ✓

Q7. List and briefly describe the Cisco IOS modes.

[2]

Router Prompt	IOS Mode Name
Router >	USER EXEC Mode
Router #	Privileged EXEC mode
Router (config)#	Global configuration mode
Router (config-if)#	Interface mode / other

Q8. Multiple Choice

1. What Type of cable used in Router to Switch?

- v. Console ☒ ii. Copper Street Throw iii. Copper Cross-Over iv. Serial Cable

[1]

2. When looking at the routing table, how do you know which entries have been learned through Static Default?

- i) The entry with code R ii) The entry with code C iii) The entry with code S
iv) The entry with code RIP v) The entry with code Static ☒ vi) The entry with code S*

[1]

3. What command is used to view your routing table?

- i. Router (config) # show run ☒ ii. Router# show ip route iii. Router (config) # show ip route
iv. Router# show route table v. Router# show running table vi. Router# show running-config

[1]

4. You wish to disable the Fast Ethernet interface on your router. What command would you use? .. [1]

- i) router(config-if)#shutdown ii) router(config-if)#disable
☒ iii) router(config)#shutdown interface F0/0 iv) router(config)#disable interface F0/0
v) router(config)#shutdown

5. What types of actions can an administrator perform at this IOS prompt? (Select two.)

[2]

- R1(config-if)#
i) Show running-config ☒ ii) Disable the interface ☒ iii) Show the IOS version
iv) Change the hostname ☒ v) Assign an IP address

Subnet Calculation

Q9. Which of the following statements are true of 190.88.122.45/19? (Choose three.)

[3]

1. The network is not subnetted.
2. The first valid address of the subnet is 190.88.122.1.
3. The network ID of the subnet is 190.88.122.0.
☒ 4. The first valid address of the subnet is 190.88.96.1.
☒ 5. The last valid address of the subnet is 190.88.96.254.
6. The last valid address of the subnet is 190.88.255.254.
☒ 7. The network is subnetted
8. The broadcast address of the subnet is 190.88.127.255.

Q10. You need to assign the fourth valid IP address of 107.53.100.10/12 to the Fast Ethernet port on the router. What address would you use?

[1]

- i) 107.53.0.4 ii) 107.53.100.4 iii) 107.0.0.4 ☒ iv) 107.48.0.4