

## Quiz Submissions - Midterm



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### Attempt 1

Written: Apr 13, 2022 4:43 PM - Apr 13, 2022 5:36 PM

### Submission View

Your quiz has been submitted successfully.

#### Question 1

0 / 5 points

For a network with no overhead: throughput = bandwidth.

- ☐ a) True
- ☒ b) False

#### Question 2

5 / 5 points

Given a host with the IP address 172.32.65.13 and a default subnet mask, to which network does the host belong?

- ☐ 1) 172.32.65.0
- ☐ 2) 172.32.65.32
- ☒ 3) 172.32.0.0
- ☐ 4) 172.32.32.0

#### Question 3

5 / 5 points

The Internet is a packet-switched network.

- ☒ a) True
- ☐ b) False

#### Question 4

5 / 5 points

Which Layer 1 devices can be used to enlarge the area covered by a single LAN segment? (Select two)

☐ Switch

☐ Router

☐ NIC

☒ Hub

☒ Repeater

### Question 5

5 / 5 points

Network collision occurs:

☐ 1) in case of traffic overloading

☐ 2) when a system terminates

☐ 3) when a switch sends broadcast message

☒ 4) when two devices send a data at the same time

☐ 5) none of the mentioned

### Question 6

5 / 5 points

At Layer 3, switches are the interconnection devices most commonly used between LANs.

☐ a) True

☒ b) False

### Question 7

5 / 5 points

Ping is a tool that can be used to determine the number of hops to a destination and the round trip time (RTT) for each hop?

☐ a) True

☒ b) False

**Question 8****5 / 5 points**

A host machine is a network node that runs a user application.

- ☒ a) True
- ☐ b) False

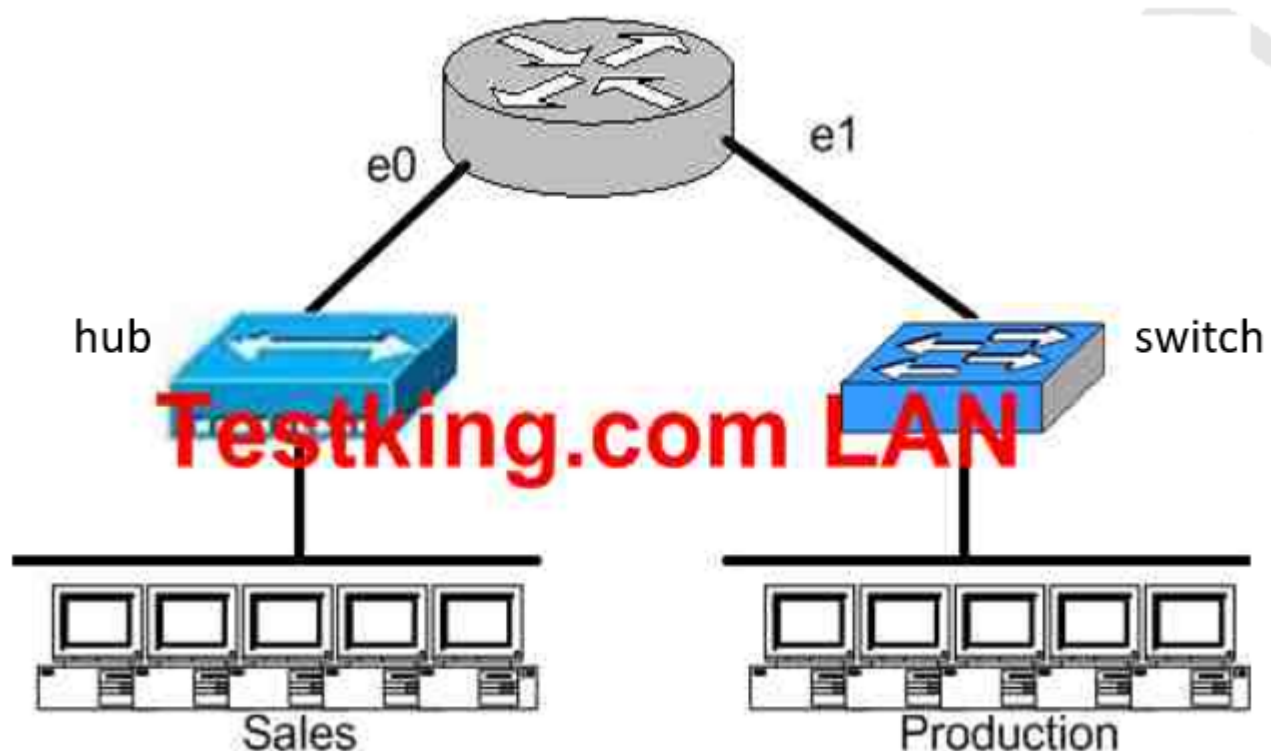
**Question 9****0 / 5 points**

Ethernet frames have two IP addresses stored in the header field.

- ☒ a) True
- ☐ b) False

**Question 10****5 / 5 points**

The Sales and Production networks are separated by a Testking router as shown in the diagram below:



Which of the following statements most accurately describes the characteristics of the above networks broadcast and collision domains? (Select the two best answer choices)

☒ There are two broadcast domains in the network.

☐ There are four broadcast domains in the network.

☐ There are six broadcast domains in the network.

☐ There are four collision domains in the network.

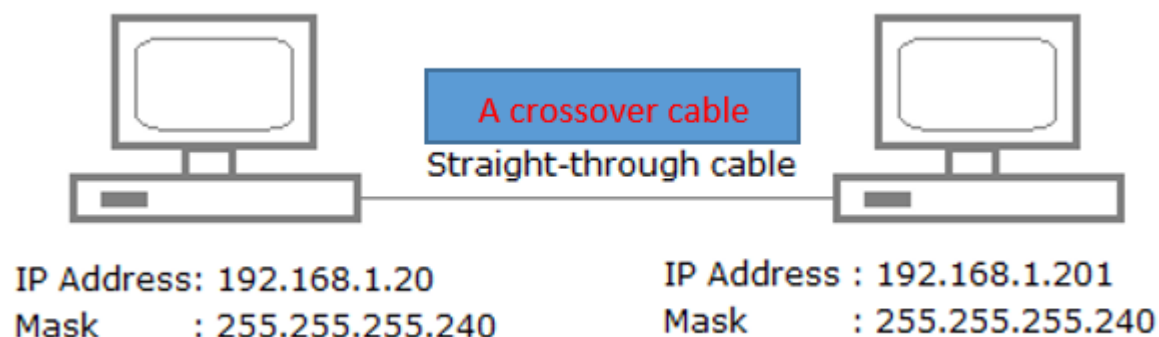
☐ There are five collision domains in the network.

☒ There are seven collision domains in the network.

### Question 11

5 / 5 points

A network administrator is connecting hosts A and B directly through their Ethernet interfaces, as shown in the illustration. Ping attempts between the hosts are unsuccessful. What can be done to provide connectivity between the hosts?



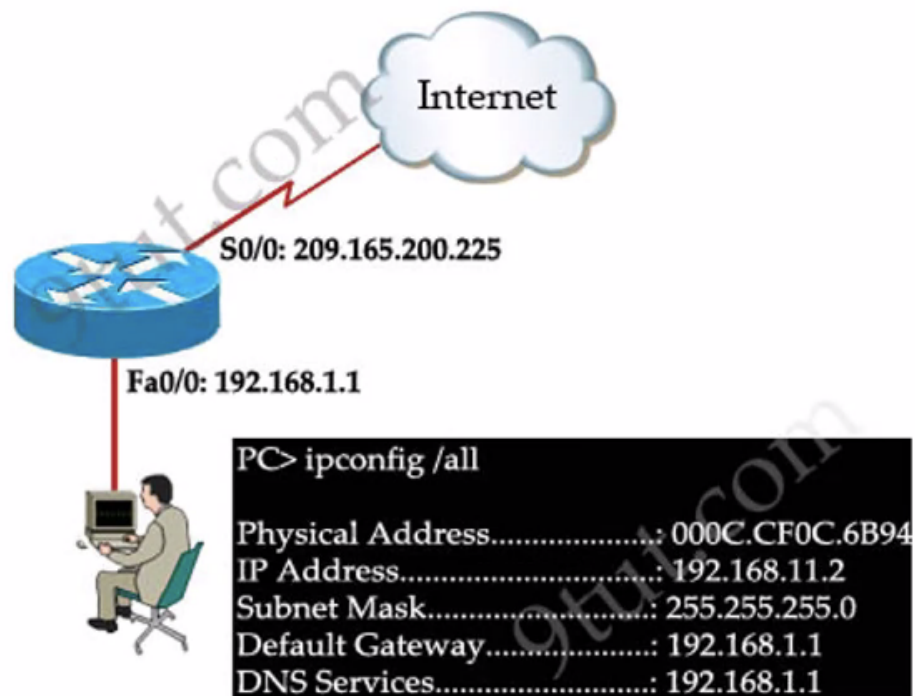
1. A rollover cable should be used in place of the straight-through cable.
2. The subnet masks should be set to 255.255.255.192.
3. A default gateway needs to be set on each host.
4. The subnet masks should be set to 255.255.255.0.

- ☐ a) 1 only
- ☐ b) 2 only
- ☐ c) 3 and 4 only
- ☒ d) 4 only
- ☐ e) 3 only

### Question 12

5 / 5 points

Refer to the exhibit. A network engineer is troubleshooting an internet connectivity problem on the computer. What causing the problem?



- ☐ a) Wrong DNS server
- ☐ b) Wrong default gateway
- ☒ c) Incorrect IP address
- ☐ d) Incorrect subnet mask

### Question 13

5 / 5 points

At Layer 2, routers are the interconnection devices most commonly used between LANs.

- ☐ a) True
- ☒ b) False

### Question 14

5 / 5 points

You are working in a data center environment and are assigned the address range 10.188.31.0/23. You are asked to develop an IP addressing plan to allow the maximum number of subnets with as many as 30 hosts each. Which IP address range meets these requirements?

- ☒ a) 10.188.31.0/27
- ☐ b) 10.188.31.0/26
- ☐ c) 10.188.31.0/29
- ☐ d) 10.188.31.0/28
- ☐ e) 10.188.31.0/25

### Question 15

5 / 5 points

Refer to the exhibit. What kind of network device that can be used to connect all the computers below?

192.168.0.38



10.0.54.15



172.30.1.54

- ☐ 1) Hub
- ☐ 2) Bridge
- ☐ 3) Switch
- ☒ 4) Router

Question 16

5 / 5 points

An Ethernet switch forwards LAN traffic from connected devices based on the information stored in:

- ☐ 1) DNS table
- ☐ 2) Routing table
- ☒ 3) MAC address table
- ☐ 4) Firmware

### Question 17

5 / 5 points

Encapsulation is the process of capturing and reading data as it travels across the Internet.

- ☐ a) True
- ☒ b) False

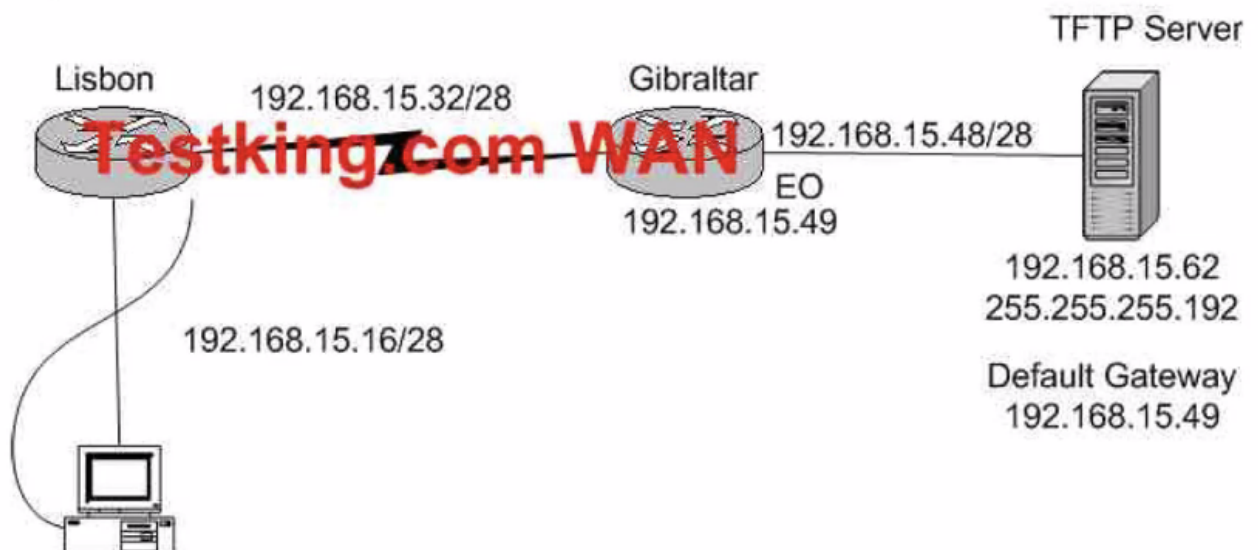
### Question 18

5 / 5 points

Study the exhibit below:

A systems administrator in Lisbon configured a new router to connect with his company's head office in Gibraltar. He attempted to create and save an image file of the new router on the TFTP server in Gibraltar but failed. Based on the information given by above exhibit, what is the underlying problem?

1. Study the exhibit below.





- ☐ a) The IP address of the TFTP server not correct.
- ☒ b) There is an incorrect subnet mask of the TFTP server.
- ☐ c) The default gateway of the TFTP server not properly set.
- ☐ d) The subnet mask on the Lisbon router not correct
- ☐ e) There is an incorrect IP address configured on E0 of the Gibraltar router

### Question 19

5 / 5 points

What is split horizon?

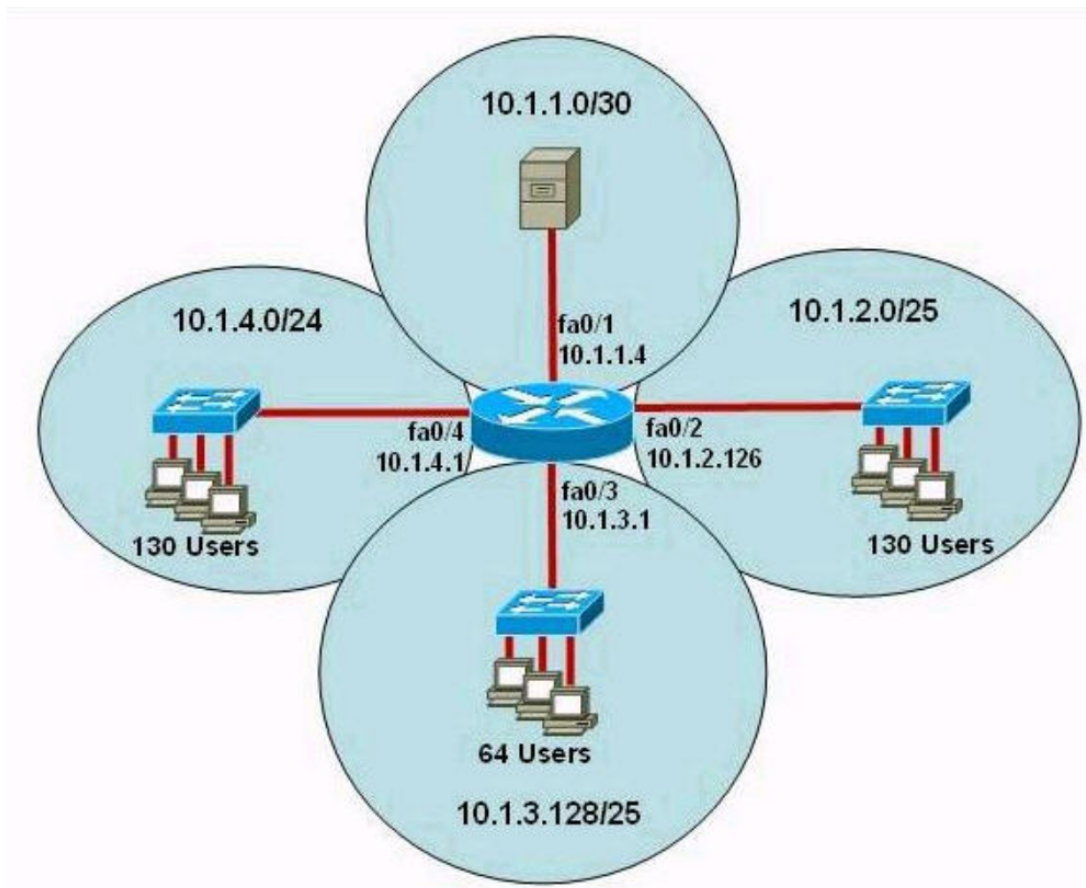
- ☒ a) Information about a route should not be sent back in the direction from which the original update came.
- ☐ b) It splits the traffic when you have a large bus (horizon) physical network.
- ☐ c) It holds the regular updates from broadcasting to a downed link.
- ☐ d) It prevents regular update messages from reinstating a route that has gone down.

### Question 20

4.167 / 5 points

Refer to the exhibit. The goal of this network design is to provide the most efficient use of IP address space in a network expansion. Each circle defines a network segment and the number of users required on that segment. An IP subnetwork number and default gateway address are shown for each segment.

What are three problems with the network design as shown? (Choose three)



- ☐ a) Interface fa0/3 has an IP address that overlaps with network 10.1.3.0/25.
- ☒ b) Interface fa0/1 has an invalid IP address for the subnet on which it resides.
- ☐ c) Interface fa0/2 has an invalid IP address for the subnet on which it resides.
- ☒ d) Network 10.1.2.0/25 requires more user address space.
- ☐ e) Network 10.1.3.128/25 requires more user address space.
- ☐ f) The IP subnet 10.1.1.0/30 is invalid for a segment with a single server.

Attempt Score: 89.17 / 100 - 89.17 %

Overall Grade (highest attempt): 89.17 / 100 - 89.17 %

Done