

Name: \_\_\_\_\_

Score: \_\_\_\_\_ / \_\_\_\_\_

## Assignment #1 - Questions

### Part 1

Why are we using a Virtual Machine(VM) with Wireshark to capture network traffic for this assignment? Select All Answers That Apply

- ☐ A. It is easier to 'sniff' the network traffic between the VM and the host compared to using the local loopback address.
- ☐ B. Wireshark has to be installed on a VM to work.
- ☐ C. We want to simulate network traffic between two network devices using a single physical computer.

Answer Point Value: 2.0 points

Answer Key: A,C

The provided Client and Server applications are using the TCP protocol to communicate?

- ☒ True
- ☐ False

Answer Point Value: 2.0 points

Answer Key: True

Which of the following Ethernet LAN transmission rates are commonly deployed in both home and enterprise networks?

- ☐ A. 1 Mbps
- ☐ B. 10Mbps
- ☐ C. 100Mbps
- ☐ D. 1Gbps
- ☐ E. 10Gbps
- ☐ F. A,B,C
- ☐ G. A,B,C,D
- ☐ H. B,C,D,E
- ☐ I. B,C,D

Answer Point Value: 2.0 points

Answer Key: H

Ethernet can only run over twisted-pair copper wire such as Cat 5 or Cat 6 cable.

- ☐ True
- ☐ False

Answer Point Value: 2.0 points

Answer Key: False

The 802.11 b/g/n standard applies to:

- ☐ A. Wired Networks
- ☐ B. Wireless Networks (WiFi)
- ☐ C. Cellular Networks
- ☐ D. B & C
- ☐ E. All of the above

Answer Point Value: 2.0 points

Answer Key: B

Please match the media type to the proper propagation path

- |                               |   |
|-------------------------------|---|
| 1. Copper Wire (Cat 5, Cat 6) | A. Guided Propagation, Vulnerable to RF/EMI Interference, More than 6 conductors    |
| 2. Fiber                      | B. Unguided Propagation, Vulnerable to RF/EMI Interference, Typically Used for LANs |
| 3. Coax                       | C. Guided Propagation, NOT Vulnerable to RF/EMI Interference                        |
| 4. Wifi                       | D. Guided Propagation, Vulnerable to RF/EMI Interference, 2 Conductors              |
| 5. Cellular                   | E. Unguided Propagation, Vulnerable to RF/EMI Interference, Typically Used for WANs |

Answer Point Value: 2.0 points

Answer Key: 1:A, 2:C, 3:D, 4:B, 5:E

In general, packet switching allows more users to use a network link and makes more efficient use of the link as compared to circuit-switching.

- ☐ True
- ☐ False

Answer Point Value: 2.0 points

Answer Key: True

Which of the following are sources of packet delay in a packet switched network?

Select All Answers That Apply

- ☐ A. Transmission
- ☐ B. Propagation
- ☐ C. Nodal Processing
- ☐ D. Postal
- ☐ E. Queueing

Answer Point Value: 4.0 points

Answer Key: A,B,C,E

Denial of Service (DoS) attacks require the following in order to be successful

- ☐ A. Access to a Botnet or some group of hosts controlled by the attacker.
- ☐ B. Multiple attackers
- ☐ C. Access to YouTube.com for instructions on carrying out the DoS attack
- ☐ D. A target that does not have unlimited bandwidth
- ☐ E. Elevated permissions on the target's server

Answer Point Value: 3.0 points

Answer Key: A,B,D

What are the different layers in the Internet protocol stack?

- ☐ A. State
- ☐ B. Application
- ☐ C. Network
- ☐ D. Link
- ☐ E. Transport
- ☐ F. Presentation
- ☐ G. Session
- ☐ H. Physical

Answer Point Value: 5.0 points

Answer Key: B,C,D,E,H