

Network Security – Network Theory

Name: _____ Date: _____

1. Name the standard organizations that help control the computer industry.

2. Describe these computer standards terms.
 - a. Request For Comments _____
 - b. Best Current Practices _____
 - c. For Your Information _____
 - d. Standards _____
 - e. Internet Experiment Note _____

3. Who can submit an informational or technical change RFC to improve networking? _____

4. A weakness in the Internet Request for Comment (RFC) process is the lack of attention to _____ issues.

5. Request for Comments (RFC) were originally published as technical or informational notes but eventually became networking standards. These were first started in what year? _____

6. Give the term for these examples of networking transmission errors.
 - a. _____ The data 01010101 appears as 01010111.
 - b. _____ The data 00000000 appears as 11111111
 - c. _____ May purposely changed from 00000000 to 11111111 or 01010101 to 01010111

7. The International Standards Organization released Open Systems Interconnection standard first in what year? _____

8. What are the four lower levels of the OSI model?

9. What layers of the OSI model match up against the Application layer of the TCP model?

10. What layers of the OSI model match up against the Network Interface layer of the TCP model?

Network Security – Network Theory

11. What layers of the OSI model match up against the Internet layer of the TCP model?
12. What layer of the OSI model is named the same as the TCP model layer? _____
13. The OSI and TCP/IP networking model operates from the top to the bottom layer of the stack when information is sent and from the bottom to the top of the layer stack when data is received. A virtual private network is a _____ stack where the transmission can go from top to bottom and top to bottom of the layer stack again.
14. This is a straightforward utility that generates an echo request. A successful usage shows connectivity along the first three layers of the OSI model.
15. What are common tools that an administrator can use to test network connectivity?
16. What tool would a networking administrator use to “fingerprint” a remote host?
17. An encrypted tunnel can be done using a _____ with a Linux server and client.
18. Both network administrators and network attackers can use assessment tools to find holes in the network security. Name these tools.