## **Module 3 Review**

- 1. What is an IP address?
  - a. What is the purpose?
  - b. What is the structure?
  - c. What is the difference between IPv4 and IPv6?
    - i. Advantages
    - ii. disadvantages
  - d. What is the highest number used in IPv4?
  - e. What are the classes of IP addresses? A, B, C, D?
- 2. CIDR and Subnet Mask.
- 3. Network Address Translation
- 4. DNS
- 5. What is a port?
- 6. Port Security
- 7. Data Loss Prevention
- 8. What is a MAC address?
  - a. How is it assigned?
  - b. What is the length?
  - c. Can it be changed?
  - d. What is the purpose?
- 9. Difference between TCP and UDP.
  - a. How are TCP connections established?
  - b. What are common types of TCP connections?
  - c. What are common types of UDP connections?
  - d. Difference between a connectionless and connection oriented service
- 10. What are the differences between these network devices.
  - a. Gateway
  - b. Bridge
  - c. Router
  - d. Switch
  - e. Repeater
  - f. Hub
  - g. VPN
  - h. Firewall
  - i. DMZ
  - j. SSL
  - k. TLS
- 11. What is a wireless network?
  - a. Advantages
  - b. Disadvantages
- 12. Define and describe the following.
  - a. Phishing
  - b. Pharming
  - c. Whaling

- d. Wardriving
- e. Spoofing
- f. Virus
- g. Worm
- h. Trojan
- i. R.A.T.
- 13. Principles of Authentication
- 14. Principles of Password security
- 15. Incident response evidence collection
- 16. What is Personally Identifiable Information?
  - a. Risks
  - b. Types
  - c. Examples
- 17. What is TCP/IP
  - a. What does it do?
  - b. When was it invented?
  - c. Who invented it?
  - d. What are the layers?
  - e. What protocols are associated with each layer?
- 18. Internet Layer
- 19. Transport Layer
- 20. Application Layer
- 21. Link Layer
- 22. What is a network collision?
- 23. What are 5 types of networks? (each are 3 letter acronyms)
- 24. Network Toplogies
  - a. Star
  - b. Ring
  - c. Mesh
  - d. BUS
  - e. Hybrid
- 25. What is a datacenter and its purpose?
- 26. What is troubleshooting?
- 27. What are the steps of troubleshooting?
- 28. From the lecture what are the 6 principles of dealing with customers
- 29. What mnemonic sentence was used in the lecture to remember the 7 layers of the OSI model?
  - a. What are the seven layers?
- 30. What is bandwidth? How is it measured?
- 31. What is a protocol?
- 32. Know how to convert to and from binary and decimal.
  - a. Base10
  - b. Base2
  - c. Base16
- 33. Protocols what are they and what is the standard port

- a. HTTP
- b. HTTPS
- c. HTMP
- d. URL
- e. FTP
- f. SMTP
- g. DHCP
- h. P2P
- i. VLAN
- j. SSH
- k. RDP
- l. 1053
- m. 7850
- n. 161

## 34. Commands

- a. ipconfig
- b. Nslookup
- c. Ping
- d. Hostname
- e. Tracert
- f. Netstat
- 35. Social Engineering
- 36. Denial of Service/DDOS
- 37. Difference between a Vulnerability/Threat/Exploit
- 38. Zero-Day
- 39. Principles for securing your network
- 40. Securing an operating system best practices