|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1. TCP/IP uses its own four-layer architecture that includes the Network Interface, Internet, Transport, and Application layers.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2. The most popular implementation of DNS is the Unix Internet Name Domain.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 3. Trivial File Transfer Protocol (TFTP) uses a more memory when compared to FTP.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 4. SNMP-managed devices must have an agent or a service that listens for commands and then executes them.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 5. S/MIME can be used when mail is accessed through a web browser.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 6. A DDoS mitigator is a software device that identifies and blocks real-time distributed denial of service (DDoS) attacks.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7. A correlation engine aggregates and correlates content from different sources to uncover an attack.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 8. Type I hypervisors run on the host operating system.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 9. A private cloud is one in which the services and infrastructure are offered to all users with access provided remotely through the Internet.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 10. File integrity check (FIC) is a service that can monitor any changes made to computer files, such as operating system files.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. What protocol suite below is the most commonly used protocol for local area network (LAN) communication?   |  |  |  | | --- | --- | --- | |  | a. | UDP | |  | b. | IPX/SPX | |  | c. | TCP/IP | |  | d. | Appletalk | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. At what level of the OSI model does the IP protocol function?   |  |  |  | | --- | --- | --- | |  | a. | Transport Layer | |  | b. | Network Layer | |  | c. | Data link Layer | |  | d. | Presentation Layer | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. Which layer of the OSI model contains the TCP protocol, which is used for establishing connections and reliable data transport between devices?   |  |  |  | | --- | --- | --- | |  | a. | Application Layer | |  | b. | Presentation Layer | |  | c. | Network Layer | |  | d. | Transport Layer | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. When using SNMPv1 or SNMPv2, what piece of information is needed to view information from an agent?   |  |  |  | | --- | --- | --- | |  | a. | entity | |  | b. | community string | |  | c. | MIB | |  | d. | OID | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. Select the TCP/IP protocol that resolves a symbolic name to its corresponding IP address using a database consisting of an organized hierarchy tree.   |  |  |  | | --- | --- | --- | |  | a. | WINS | |  | b. | NIS | |  | c. | TACACS+ | |  | d. | DNS | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. DNS poisoning can be prevented using the latest edition of what software below?   |  |  |  | | --- | --- | --- | |  | a. | BIND | |  | b. | DHCP | |  | c. | WINS | |  | d. | finger | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. An administrator needs to examine FTP commands that are being passed to a server. What port should the administrator be monitoring?   |  |  |  | | --- | --- | --- | |  | a. | 19 | |  | b. | 20 | |  | c. | 21 | |  | d. | 22 | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. What device operates at the Network Layer (layer 3) of the OSI model and forwards packets across computer networks?   |  |  |  | | --- | --- | --- | |  | a. | bridge | |  | b. | router | |  | c. | switch | |  | d. | hub | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19. How can a network of physical devices be grouped into logical units, regardless of what network switches they may be connected to?   |  |  |  | | --- | --- | --- | |  | a. | VLAN | |  | b. | subnets | |  | c. | IP address | |  | d. | MAC address | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. When setting up a server virtualization environment, what component below manages the virtual machine operating systems and supports one or more guest systems?   |  |  |  | | --- | --- | --- | |  | a. | kernel | |  | b. | supervisor | |  | c. | hypercard | |  | d. | hypervisor | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. Which Cloud computing service model uses the cloud computing vendor to provide access to the vendor's software applications running on a cloud infrastructure?   |  |  |  | | --- | --- | --- | |  | a. | Application as a Service | |  | b. | Infrastructure as a Service | |  | c. | Software as a Service | |  | d. | System as a Service | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. In what type of cloud computing does the customer have some control over the operating systems, storage, and their installed applications?   |  |  |  | | --- | --- | --- | |  | a. | Application as a Service | |  | b. | Infrastructure as a Service | |  | c. | Software as a Service | |  | d. | System as a Service | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23. Which of the following protocols is used to manage network equipment and is supported by most network equipment manufacturers?   |  |  |  | | --- | --- | --- | |  | a. | TCP/IP | |  | b. | FTP | |  | c. | SNMP | |  | d. | SRTP | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. Which of the following protocols is unsecured?   |  |  |  | | --- | --- | --- | |  | a. | HTTPS | |  | b. | TLS | |  | c. | SSL | |  | d. | FTP | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. Select the email protocols that are not secure? (Choose all that apply.)   |  |  |  | | --- | --- | --- | |  | a. | TLS | |  | b. | S/MIME | |  | c. | POP | |  | d. | IMAP | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. What secure protocol is recommended for time synchronization?   |  |  |  | | --- | --- | --- | |  | a. | SRTP | |  | b. | S/MIME | |  | c. | NTP | |  | d. | POP | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. What secure protocol is recommended for voice and video?   |  |  |  | | --- | --- | --- | |  | a. | SRTP | |  | b. | S/MIME | |  | c. | IMAP | |  | d. | IPsec | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28. What hardware component can be inserted into a web server that contains one or more co-processors to handle SSL/TLS processing?   |  |  |  | | --- | --- | --- | |  | a. | SSL/TLS tap | |  | b. | SSL/TLS accelerator | |  | c. | SSL/TLS access point | |  | d. | SSL/TLS mirror | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29. If a network administrator needs to configure a switch to copy traffic that occurs on some or all ports to a designated monitoring port on the switch, what switch technology will need to be supported?   |  |  |  | | --- | --- | --- | |  | a. | interface capture | |  | b. | port identity | |  | c. | port snooping | |  | d. | port mirroring | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. What hardware device can be inserted into a network to allow an administrator to monitor traffic?   |  |  |  | | --- | --- | --- | |  | a. | network tap | |  | b. | network mirror | |  | c. | shark box | |  | d. | shark tap | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31. What type of switch is used to combine multiple network connections into a single link?   |  |  |  | | --- | --- | --- | |  | a. | core switch | |  | b. | gateway switch | |  | c. | aggregation switch | |  | d. | access switch | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 32. Select the security tool that is an inventory of applications and associated components that have been pre-approved and authorized to be active and present on the device?   |  |  |  | | --- | --- | --- | |  | a. | malware management | |  | b. | inventory permissions | |  | c. | application whitelist | |  | d. | application control | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 33. What secure protocol is recommended for Network address translation?   |  |  |  | | --- | --- | --- | |  | a. | SRTP | |  | b. | S/MIME | |  | c. | IMAP | |  | d. | IPsec | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 34. What specific issues are associated with log management? (Choose all that apply.)   |  |  |  | | --- | --- | --- | |  | a. | The multiple devices generating logs. | |  | b. | The different log formats. | |  | c. | The fast network transfer speeds. | |  | d. | The large volume of data that needs to be logged | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 35. What type of system is designed to collect and consolidate logs from multiple sources for easy analysis?   |  |  |  | | --- | --- | --- | |  | a. | centralized device log analyzer | |  | b. | core device log analyzer | |  | c. | network log device | |  | d. | system log manager | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 36. Which technology is a means of managing and presenting computer resources by function without regard to their physical layout or location?   |  |  |  | | --- | --- | --- | |  | a. | IaaS | |  | b. | cloud computing | |  | c. | virtualization | |  | d. | PaaS | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37. What type of computing environment allows servers, storage, and the supporting networking infrastructure to be shared by multiple enterprises over a remote network connection that had been contracted for a specific period?   |  |  |  | | --- | --- | --- | |  | a. | virtual services | |  | b. | hosted services | |  | c. | cloud services | |  | d. | volume computing | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 38. Which of the following is the process of running a user desktop inside a virtual machine that resides on a server?   |  |  |  | | --- | --- | --- | |  | a. | PaaS | |  | b. | SDN | |  | c. | VDI | |  | d. | SaaS | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 39. What are the planes used to allow SDN to virtualize parts of the physical network so that it can be more quickly and easily reconfigured? (Choose all that apply.)   |  |  |  | | --- | --- | --- | |  | a. | data plane | |  | b. | management plane | |  | c. | control plane | |  | d. | data plane | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 40. On and SDN network, what specific unit gives traffic the permission to flow through the network?   |  |  |  | | --- | --- | --- | |  | a. | SDN router | |  | b. | SDN firewall | |  | c. | SDN gateway | |  | d. | SDN controller | |

|  |
| --- |
| 41. What are the two types of community strings? |

|  |
| --- |
| 42. Why is the Physical Layer omitted in the TCP/IP model? |

|  |
| --- |
| 43. Discuss the problems associated with storing the entire database of names and IP addresses in one location. |

|  |
| --- |
| 44. List the steps of a DNS lookup. |

|  |
| --- |
| 45. Describe the ways you can use FTP on a local host computer. |

|  |
| --- |
| 46. Discuss at least two security advantages of a host running virtualization. |

|  |
| --- |
| 47. Discuss the Software as a Service (SaaS) model used in cloud computing. |

|  |
| --- |
| 48. Discuss the Infrastructure as a Service (IaaS) model used in cloud computing. |

|  |
| --- |
| 49. Explain the basic operating principals used in software defined networking. |

|  |
| --- |
| 50. What Microsoft Windows feature prevents attackers from using buffer overflows to execute malware? |