



1. A company is contemplating whether to use a client/server or a peer-to-peer network.

What are two characteristics of a peer-to-peer network? (Choose two.)

- a. better security
- b. easy to create
- c. better device performance when acting as both client and server
- d. lacks centralized administration
- e. scalable



2. Which area of the network would a college IT staff most likely have to redesign as a direct result of many students bringing their own tablets and smartphones to school to access school resources?

- a. extranet
- b. intranet
- c. wired LAN
- d. wireless LAN
- e. wireless WAN

3. Which two Internet connection options do not require that physical cables be run to the building? (Choose two.)

- a. DSL
- b. cellular
- c. satellite
- d. dialup
- e. dedicated leased line

4. A user is implementing security on a small office network. Which two actions would provide the minimum security requirements for this network? (Choose two.)

- a. implementing a firewall
- b. installing a wireless network
- c. installing antivirus software
- d. implementing an intrusion detection system
- e. adding a dedicated intrusion prevention device

5. In a block of addresses, we know the IP address of one host is 182.44.82.16/26.

What is the network address and the limited broadcast address in this block?

Network address broadcast address

6. Show abbreviations for the following addresses:

- a. 0000:0000:FFFF:0000:0000:0000:0000:0000
- b. 1234:2346:0000:0000:0000:0000:0000:1111
- c. 0000:0001:0000:0000:0000:0000:1200:1000



7. What are the two sizes (minimum and maximum) of an Ethernet frame?
maximum size minimum size
8. Which name is assigned to the transport layer PDU?
a. bits b. data c. frame d. packet e. segment
9. A network administrator is troubleshooting connectivity issues on a server. Using a tester, the administrator notices that the signals generated by the server NIC are distorted and not usable. In which layer of the OSI model is the error categorized?
a. presentation layer b. network layer c. physical layer d. data link layer
10. Which type of UTP cable is used to connect a PC to a switch port?
a. console b. rollover c. crossover d. straight-through
11. What are two characteristics of fiber-optic cable? (Choose two.)
a. It is not affected by EMI or RFI.
b. Each pair of cables is wrapped in metallic foil.
c. It combines the technique of cancellation, shielding, and twisting to protect data.
d. It typically contains 4 pairs of fiber-optic wires.
e. It is more expensive than UTP cabling is.
12. What is a characteristic of the LLC sublayer?
a. It provides the logical addressing required that identifies the device.
b. It provides delimitation of data according to the physical signaling requirements of the medium.
c. It places information in the frame allowing multiple Layer 3 protocols to use the same network interface and media.
d. It defines software processes that provide services to the physical layer.
13. What method is used to manage contention-based access on a wireless network?
a. CSMA/CD b. priority ordering c. CSMA/CA d. token passing

14. What are the three primary functions provided by Layer 2 data encapsulation? (Choose three.)

- error correction through a collision detection method
- session control using port numbers
- data link layer addressing
- placement and removal of frames from the media
- detection of errors through CRC calculations
- delimiting groups of bits into frames
- conversion of bits into data signals



15. What are two actions performed by a Cisco switch? (Choose two.)

- building a routing table that is based on the first IP address in the frame header
- using the source MAC addresses of frames to build and maintain a MAC address table
- forwarding frames with unknown destination IP addresses to the default gateway
- utilizing the MAC address table to forward frames via the destination MAC address
- examining the destination MAC address to add new entries to the MAC address table

16. Which two statements describe features or functions of the logical link control sublayer in Ethernet standards? (Choose two.)

- Logical link control is implemented in software.
- Logical link control is specified in the IEEE 802.11 standard.
- The LLC sublayer adds a header and a trailer to the data.
- The data link layer uses LLC to communicate with the upper layers of the protocol suite.
- The LLC sublayer is responsible for the placement and retrieval of frames on and off the media.

17. Which statement is true about MAC addresses?

- MAC addresses are implemented by software.
- A NIC only needs a MAC address if connected to a WAN.
- The first three bytes are used by the vendor assigned OUI.
- The ISO is responsible for MAC addresses regulations.

18. Which destination address is used in an ARP request frame?

- 0.0.0.0
- 255.255.255.255
- FFFF.FFFF.FFFF
- 127.0.0.1
- 01-00-5E-00-AA-23

19. What addressing information is recorded by a switch to build its MAC address table?
- the destination Layer 3 address of incoming packets
 - the destination Layer 2 address of outgoing frames
 - the source Layer 3 address of outgoing packets
 - the source Layer 2 address of incoming frames
20. Which two interfaces will allow access via the VTY lines to configure the router?
(Choose two.)
- aux interfaces
 - LAN interfaces
 - WAN interfaces
 - console interfaces
 - USB interfaces
21. True or False?
When a device is sending data to another device on a remote network, the Ethernet frame is sent to the MAC address of the default gateway.
- true
 - false
22. The ARP table in a switch maps which two types of address together?
- Layer 3 address to a Layer 2 address
 - Layer 3 address to a Layer 4 address
 - Layer 4 address to a Layer 2 address
 - Layer 2 address to a Layer 4 address
23. What is the purpose of the preamble in an Ethernet frame?
- is used as a padding for data
 - is used for timing synchronization
 - is used to identify the source address
 - is used to identify the destination address
24. What is a characteristic of a contention-based access method?
- It processes more overhead than the controlled access methods do.
 - It has mechanisms to track the turns to access the media.
 - It is a nondeterministic method.
 - It scales very well under heavy media use.

25. Which characteristic describes crosstalk?
- the distortion of the network signal from fluorescent lighting
 - the distortion of the transmitted messages from signals carried in adjacent wires
 - the weakening of the network signal over long cable lengths
 - the loss of wireless signal over excessive distance from the access point
26. A network administrator is designing the layout of a new wireless network. Which three areas of concern should be accounted for when building a wireless network? (Choose three.)
- mobility options
 - security
 - interference
 - coverage area
 - extensive cabling
 - packet collision
27. Which layer of the OSI model is responsible for specifying the encapsulation method used for specific types of media?
- application
 - transport
 - data link
 - physical
28. What is contained in the trailer of a data-link frame?
- logical address
 - physical address
 - data
 - error detection
29. How is the magnetic field cancellation effect enhanced in UTP cables?
- by increasing the thickness of the PVC sheath that encases all the wires
 - by increasing and varying the number of twists in each wire pair
 - by increasing the thickness of the copper wires
 - by decreasing the number of wires that are used to carry data
30. What are two characteristics of 802.11 wireless networks? (Choose two.)
- They use CSMA/CA technology.
 - They use CSMA/CD technology.
 - They are collision-free networks.
 - Stations can transmit at any time.
 - Collisions can exist in the networks.
31. What information is added during encapsulation at OSI Layer 3?
- source and destination MAC
 - source and destination application protocol
 - source and destination port number
 - source and destination IP address



32. Why does a Layer 3 device perform the ANDing process on a destination IP address and subnet mask?

- to identify the broadcast address of the destination network
- to identify the host address of the destination host
- to identify faulty frames
- to identify the network address of the destination network

33. What are two functions of NVRAM? (Choose two.)

- to store the routing table
- to retain contents when power is removed
- to store the startup configuration file
- to contain the running configuration file
- to store the ARP table

34. What purpose does NAT64 serve in IPv6?

- It converts IPv6 packets into IPv4 packets.
- It translates private IPv6 addresses into public IPv6 addresses.
- It enables companies to use IPv6 unique local addresses in the network.
- It converts regular IPv6 addresses into 64-bit addresses that can be used on the Internet.
- It converts the 48-bit MAC address into a 64-bit host address that can be used for automatic host addressing.

35. Which subnet would include the address 192.168.1.96 as a usable host address?

- a. 192.168.1.64/26 b. 192.168.1.32/27 c. 192.168.1.32/28 d. 192.168.1.64/29

36. A user opens three browsers on the same PC to access www.cisco.com to search for certification course information. The Cisco web server sends a datagram as a reply to the request from one of the web browsers. Which information is used by the TCP/IP protocol stack in the PC to identify which of the three web browsers should receive the reply?

- the destination IP address
- the destination port number*
- the source IP address
- the source port number

37. What are two ways that TCP uses the sequence numbers in a segment? (Choose two.)

- to identify missing segments at the destination
- to reassemble the segments at the remote location
- to specify the order in which the segments travel from source to destination
- to limit the number of segments that can be sent out of an interface at one time
- to determine if the packet changed during transit