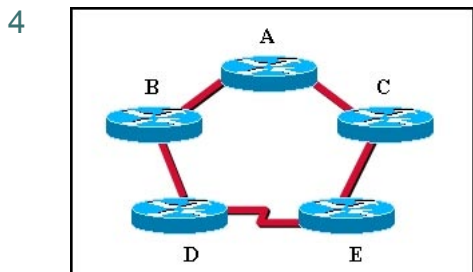
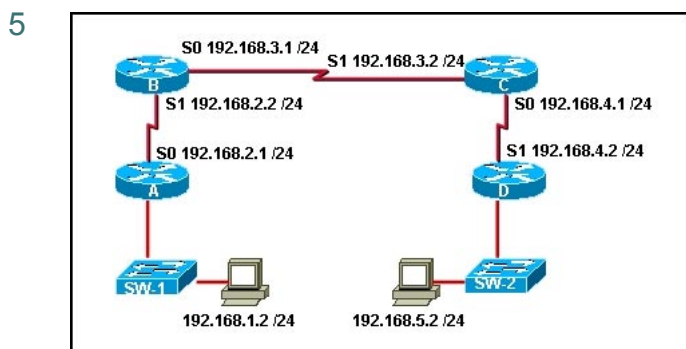


- 1 What is the first step a Cisco router performs after it is powered up?
  - Empties contents of NVRAM
  - Looks for the configuration file
  - Performs a POST
  - Starts the operating system
  
- 2 Which of the following statements describe distance vector routing updates? (Choose three.)
  - Topology changes are transmitted to all routers at once.
  - Routers send their entire routing tables in distance vector updates.
  - Path cost metrics for each route are included in the updates.
  - Periodic updates are sent directly to every router in the network.
  - Routing updates are sent periodically to adjacent routers.
  - Routers send only the state of their own links in distance vector updates.
  
- 3 Which process do routers use to determine the subnet network address based upon a given IP address and subnet mask?
  - binary adding
  - hexadecimal anding
  - binary division
  - binary multiplication
  - binary ANDing



- Which of the following is true regarding CDP and the graphic shown?
- CDP running on Router D will gather information about routers A, B, C, and E.
  - By default, Router A will receive CDP advertisements from routers B and C.
  - If routers D and E are running different routing protocols, they will not exchange CDP information.
  - Router E can use CDP to identify the IOS running on Router B.



After issuing the command **traceroute 192.168.4.2** from Router A, the following information is

returned.

Tracing the route to Router\_D (192.168.4.2)

1 Router\_B (192.168.2.2) 16 msec 16 msec 16 msec

2 \* \* \*

3 \* \* \*

What can be concluded about the network shown in the graphic based on the output given?

- Network 192.168.5.0 is missing from the routing table on Router A.
- There is a problem with the connection between Router B and Router C.
- Router C is not running CDP.
- Some of the routers are non-Cisco devices.
- Router B was not able to return ICMP TEMs to Router A.

6 What is the purpose of Positive Acknowledgment and Retransmission (PAR)?

- PAR allows the presentation layer to request that data be resent in a format the destination host can process.
- PAR provides a mechanism for the receiving device to request that all segments be retransmitted if one segment is corrupt.
- PAR helps ensure that a number of data segments sent by one host are received by an other host before additional data segments are sent.
- PAR is used to renegotiate the window size during the synchronization process.

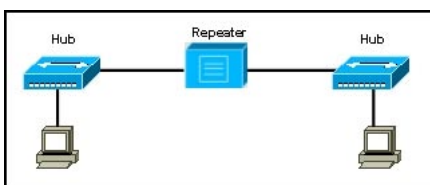
7 An administrator has made routing protocol changes to a routers configuration. To ensure that the changes are implemented, the active configuration is saved and the router is reloaded. After the router has initialized, the output on the screen displays „Would you like to enter the initial configuration dialog?[yes/no]:“ Why did this dialog appear?

- There was a POST failure.
- The incorrect IOS loaded.
- There was an error in the startup configuration file.
- The configuration register was set to ignore NVRAM.

8 Which protocol can be used to load or retrieve Cisco IOS images to or from a router?

- SNMP
- TFTP
- UDP
- TCP

9



The graphic depicts two workstations attached to two different hubs that are separated by a repeater. How many collision domains exist in this scenario?

- one
- two
- three
- four
- five

- 10 What command enables CDP on the interface of a router?
- Router(config-if)# cdp enable
  - Router(config-if)# cdp run
  - Router(config-if)# cdp start
  - Router(config-if)# cdp config
- 11 How does a network device determine a collision has occurred on an Ethernet network?
- The voltage of the signal on the networking media will increase.
  - The voltage of the signal on the networking media will decrease.
  - The voltage of the signal on the networking media will remain the same.
  - The voltage of the signal on the networking media will increase and decrease rapidly.
- 12 Which criteria identify a Class B address? (Choose two.)
- decimal number in first octet between 127 - 191
  - decimal number in first octet between 128 - 192
  - decimal number in first octet between 128 - 191
  - first bit of binary IP address is 0
  - first two bits of binary IP address are 10
  - first three bits of binary IP address are 110
- 13 If dynamic routing is not configured on a router, how do routing table updates occur?
- Link state advertisements are sent from other routers.
  - Updates are made to the routing table by the administrator.
  - Best path information is communicated by network hosts.
  - The routing table is updated by neighboring routers.
- 14 Which of the following is considered to be a multi-port bridge?
- hub
  - switch
  - router
  - repeater
- 15 Which protocol is used by e-mail servers to communicate with each other?
- FTP
  - HTTP
  - TFTP
  - SMTP
  - POP
  - SNMP
- 16 Which of the following are TCP services? (Choose three.)
- address resolution
  - end-to-end communication
  - flow control
  - reliability of data delivery
  - path determination
  - data representation
- 17 What type of routing uses information that is manually entered into the routing table?
- dynamic
  - interior
  - static
  - standard

- 18 What happens to a MAC address in a frame as it passes from router to router on its way to its destination?
- Nothing, it remains the same.
  - MAC addresses are not passed from router to router.
  - It changes from router to router.
  - It keeps the MAC address of the first router it passes through.
- 19 What is the maximum distance that 10BASE-T will transmit data before signal attenuation affects the data delivery?
- 100 meters
  - 185 meters
  - 300 meters
  - 500 meters
- 20 Which of the following are functions of RAM? (Choose three.)
- contains startup configuration file
  - stores routing table
  - holds fast switching cache
  - retains contents when power is removed
  - stores running configuration file
- 21 Which of the following IP addresses are broadcast addresses if the subnet mask is 255.255.255.240? (Choose three.)
- 75.32.75.15
  - 205.16.35.11
  - 199.254.129.111
  - 129.130.17.143
  - 135.22.55.93
  - 105.33.62.213
- 22 Which command displays the active configuration file of a router?
- Display startup-config
  - Display running-config
  - Show running-config
  - Show startup-config
- 23 Which command turns on a router interface?
- Router(config-if)# enable
  - Router(config-if)# no down
  - Router(config-if)# s0 active
  - Router(config-if)# interface up
  - Router(config-if)# no shutdown
- 24 Which statement accurately describes the way DHCP assigns IP addresses?
- The network administrator must re-assign a previously assigned address to the DHCP pool once a host no longer requires it.
  - DHCP offers a many-to-one ratio of IP addresses to users.
  - DHCP only allows users to obtain IP addresses if users have a profile in the DHCP pool.
  - DHCP has the ability to reclaim an IP address after a host workstation releases it.

- 25 Which TCP/IP layer provides services that support a logical connection between the sending and receiving hosts?
- application
  - network
  - IP
  - transport
  - presentation
  - session
- 26 If a network node is connected to a switch port using full-duplex transmission, which of the following conditions exists?
- a two-node collision domain
  - no collision domain
  - a multi-port collision domain
  - no broadcast domain
  - a two-node broadcast domain
- 27 Which of the following describes path determination at the network layer?
- router compares available ARP table information to select the best path
  - router uses routed protocol to determine the best path for data transmission
  - router compares available routing table information to select the best path
  - router uses a routing protocol to compare LAN equipment to route data through
  - switch compares available routing table information to select the best path
- 28 How many Telnet sessions can take place simultaneously on a router running a standard edition of the IOS?
- 4
  - 5
  - 8
  - 10
- 29 What does TCP use to begin the three-way handshaking process?
- The destination host sends an ACK segment.
  - The sending host sends a SYN segment.
  - The sending host sends a SYN and ACK segment.
  - The destination host sends a SYN segment.
- 30 Four concurrently running Telnet connections have been initiated. Which commands would enable the network administrator to view all of them? (Choose two.)
- Router> show configuration
  - Router> show connections
  - Router> show sessions
  - Router# show configuration
  - Router# show connections
  - Router# show sessions
- 31 Which of the following protocols operate at the application layer of the OSI model? (Choose two.)
- FTP
  - TCP
  - UDP
  - HTTP

- 32 Which OSI layer defines the functions of a router?
- physical
  - data link
  - network
  - transport
  - session
- 33 Which of the following describes the function of the Domain Name Service system?
- It associates IP addresses to domain names.
  - It associates MAC addresses to domain names.
  - It associates DHCP addresses to domain names.
  - It associates TCP port numbers to domain names.
- 34 For which condition will the ARP protocol be used?
- The destination IP address is unknown.
  - The destination MAC address is unknown.
  - The source IP address is unknown.
  - The source MAC address is unknown.
- 35 What is the default state of the interfaces on a router?
- up, line protocol down
  - down, line protocol down
  - administratively down, line protocol down
  - up, line protocol up
- 36 Which device imposes boundaries on broadcast traffic?
- bridge
  - repeater
  - router
  - transceiver
- 37 What is the purpose of the IOS enable secret command?
- To allow the user to establish password protection on incoming Telnet sessions
  - To allow the user to establish password protection on the console terminal
  - To enable the user to access the User mode
  - To enable the user to enter a password that will be encrypted
- 38 Which of the following are benefits of creating a subnetwork structure in an IP network? (Choose three.)
- permits network address duplication
  - allows for address flexibility
  - prevents address replication
  - provides broadcast containment
  - adds low-level security
  - allows for more network hosts available
- 39 Which two statements are true regarding ICMP? (Choose two.)
- ICMP provides reliability for the TCP/IP protocol stack.
  - ICMP is a component of the TCP/IP protocol stack.
  - ICMP notifies the sender that data transmission errors have occurred.
  - ICMP is connection-oriented.
  - ICMP messages are propagated to all intermediate devices.

40 How many bits are in IPv6 addresses?

- 16
- 32
- 64
- 96
- 128
- 258

41 What is the purpose of media access control?

- It identifies which workstation has sent a frame.
- It determines which Layer 3 protocol should handle a frame.
- It identifies which Ethernet frame format to use on the network.
- It determines which workstation on a shared medium LAN is allowed to transmit data.

42 How many IP addresses can be assigned to host devices on each subnet of a Class B network with a subnet mask of 255.255.255.248?

- 3
- 5
- 6
- 8
- 30
- 8190

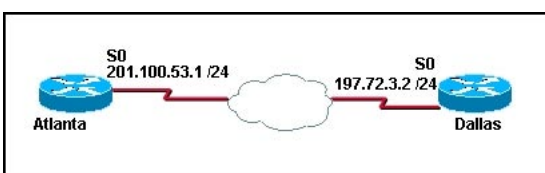
43 What are the two basic functions used by a router to relay packets?

- Filtering and switching
- Path determination and filtering
- Path determination and switching
- Traffic analysis and filtering

44 Which command will display routing table information about all known networks and subnet works?

- Router# show ip interfaces
- Router# show ip connections
- Router# show ip route
- Router# show ip networks

45



Pings between Atlanta and Dallas are successful. If a hostname table or DNS connection is not available, which command will successfully establish a remote connection from Atlanta to Dallas via Telnet?

- Atlanta> connect Dallas
- Atlanta> 197.72.3.2
- Atlanta# 206.157.85.1
- Atlanta# telnet Dallas

46 Which TCP/IP model layer supports both LAN and WAN technologies?

- network access layer
- internet layer
- transport layer
- application layer

- 47 Which of the following show commands would display the location of the IOS boot image?
- show flash
  - show NVRAM
  - show version
  - show running-config
  - show startup-config
- 48 What are the primary uses of Telnet? (Choose two.)
- routing of data packets
  - transfer of data between end users
  - verification of application layer connectivity
  - connecting to remote network devices
- 49 At which layer of the TCP/IP model does Telnet operate?
- application
  - presentation
  - session
  - transport
  - internet
  - network access
- 50 All numbering systems have a beginning or first digit and an end or last digit. Select the first and last digits representing Base 16, hexadecimal. (Choose two.)
- 0
  - A
  - 9
  - F
  - 15
- 51 When does a distance vector routing protocol set a hold-down timer on a route?
- when the metric value of the route decreases
  - when the route is marked as inaccessible
  - when the metric value for the route improves
  - when a regular update is received from a neighboring router
- 52 Which of the following are advantages of using a static route? (Choose three.)
- secure operation
  - highly adaptable
  - low maintenance configuration
  - low processor overhead
  - precise control of path selection
- 53 Which transport layer unit of information places the port number in the header?
- data
  - segment
  - packet
  - frame
  - bit

- 54 Routers have different types of memory. Choose the answer that describes flash memory.
- provides working storage
  - stores a fully functional IOS image
  - stores the startup configuration file
  - initializes the code used to boot the router
- 55 Which of the following types of networks pass a token sequentially to each host? (Choose two.)
- Ethernet
  - Token Ring
  - FDDI
  - Frame Relay
  - ISDN
- 56 Given the IP address 10.122.200.77 and subnet mask 255.255.255.224, what is the subnet address?
- 10.0.0.0
  - 10.0.0.32
  - 10.0.0.64
  - 10.122.200.0
  - 10.122.200.32
  - 10.122.200.64
- 57 Which switching mode describes a switch that transfers a frame as soon as the destination MAC address is read?
- fragment-free
  - cut-through
  - store-and-forward
  - latency forwarding
- 58 Identify the correct pairing of protocols and their classifications.
- Routed - IP, IGRP
  - Routed - RIP, OSPF
  - Routing - IPX, RIP
  - Routing -OSPF, IGRP
- 59 Which of the following describes shared media environment?
- a collision free environment made up of systems on the same medium
  - multiple hosts have access to the same cable ISP system
  - multiple hosts have access to the same medium.
  - multiple router environment in a mesh topology
- 60 Which Ethernet data link layer frame comparison is correct?
- higher speed networks require more fields be included in the frame
  - the faster speed frame structures are incompatible with the slower speed networks
  - the frame structure changes with each higher speed, however, they are compatible with slower speeds
  - all speeds of Ethernet have nearly identical frame structures