



Close Window

## Assessment System

1. Assessment Selection

2. Assessment Settings

3. Take Assessment

### Take Assessment - Voucher Exam - CCNA 2 Router and Routing Basics (Version 3.1)

Time Remaining:

1 Which network device table contains the IP and MAC address of other devices on the same LAN?

- DHCP
- RARP
- ARP
- DNS

2

```
Router#           

Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
S - Switch, H - Host, I - IGMP, r - Repeater

Device ID  Local Intrfce  Holdtme  Capability  Platform  Port ID
Tampa      Ser 1          128      R           2500      Ser 0
```

Which command will produce the output shown in the graphic?

- show cdp
- show cdp neighbors
- show cdp neighbors detail
- show cdp detail

3 Which router mode displays a prompt of **Router>**?

- Global configuration mode
- Privileged Executive mode
- Setup mode
- User Executive mode

4 What does the sending device need to communicate with another local IP host?

- the IP address of the nearest LAN server
- the MAC address of the destination device
- the IP address and MAC address of the destination device
- the IP address of the next hop switch

5 Which of the following protocols use TCP? (Choose two.)

- FTP
- DHCP
- TFTP
- HTTP
- SYN

6 Which type of protocol is used between routers to communicate and maintain tables?

- non-routable
- routable
- routed
- routing

7 Which of the following services is used to translate a web address into an IP address?

- DNS
- WINS

DHCP  
 Telnet

- 8 Which protocol functions at the internet layer of the TCP/IP protocol suite?
- File Transfer Protocol (FTP)
  - Trivial File Transfer Protocol (TFTP)
  - Transmission Control Protocol (TCP)
  - Internet Protocol (IP)
  - User Datagram Protocol (UDP)
  - Simple Mail Transport Protocol (SMTP)
- 9 Why would an administrator use the Telnet application when troubleshooting a network? (Choose three.)
- It can be used to verify the operation of application layer software between the source and destination.
  - Telnet can use the ICMP protocol to verify a hardware connection and network layer address.
  - It is the most complete testing mechanism available.
  - Remote networks may be accessed via a Telnet session for troubleshooting.
  - Time to Live values are used by Telnet to identify a failure of device between source and destination.
- 10 An administrator has made routing protocol changes to a router's 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.
- 11 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
- 12 Which command will display routing table information about all known networks and subnetworks?
- Router# **show ip interfaces**
  - Router# **show ip connections**
  - Router# **show ip route**
  - Router# **show ip networks**
- 13 A telnet session can be established when using the IP address of a router but not the name of the router. Which of the following is the most likely cause of the problem?
- an incorrect host table entry
  - an incorrect ARP table entry
  - an incorrect routing table entry
  - an incorrect protocol configured
  - an incorrect subnet mask
- 14 Which layer of the OSI model can provide a connection-oriented, reliable data transfer between two hosts?
- Application
  - Presentation
  - Session
  - Transport
- 15 Which of the following would be a function of ICMP?
- It provides control and messaging capabilities.
  - It provides address resolution services.
  - It supports e-mail functionality.
  - It enables file transfer between hosts.
  - It allows remote login to distant hosts.



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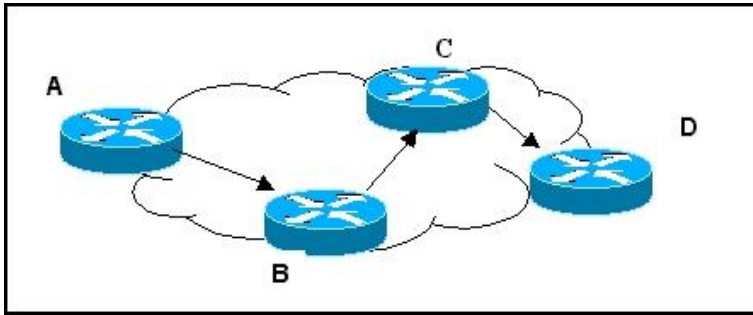
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### Take Assessment - Voucher Exam - CCNA 2 Router and Routing Basics (Version 3.1)

Time Remaining:

- 16 Which protocol can be used to load or retrieve Cisco IOS images to or from a router?
- SNMP
  - TFTP
  - UDP
  - TCP
- 17 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
- 18 Convert the binary number 10111010 into its hexadecimal equivalent. Select the correct answer from the list below.
- 85
  - 90
  - BA
  - A1
  - B3
  - 1C
- 19 How many bits are in IPv6 addresses?
- 16
  - 32
  - 64
  - 96
  - 128
  - 258
- 20 Which TCP/IP model layer supports both LAN and WAN technologies?
- network access layer
  - internet layer
  - transport layer
  - application layer
- 21 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
- 22 Which of the following describe how a device on a LAN builds a table of MAC addresses? (Choose two.)
- by monitoring the traffic that occurs on the local network segment
  - via FTP from the nearest router
  - by sending a request to the nearest domain name server
  - by broadcasting an ARP request



The **tracert** command was used to trace the path between routers A and D. What would an output display of three asterisks (\*\*\*) indicate?

- The command was issued from the wrong prompt.
- Each datagram was successfully sent.
- One of the routers is unreachable.
- There are three hops between source and destination.

24 Which of the following is the address that is changed when a frame is received at a router interface?

- IP address
- IPX address
- MAC address
- Port address

25 Which of the following is included in the frame address field? (Choose two.)

- source IP address
- destination IP address
- destination subnet mask
- source MAC address
- destination MAC address

26 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**

27

Source Port	Destination Port	Sequence #	ACK #	Window	Data
1406	80	2563987	4679	8192	

What type of segment and data is shown in the graphic?

- a UDP segment carrying e-mail traffic
- a TCP segment carrying FTP traffic
- an IP segment carrying FTP traffic
- a UDP segment carrying web traffic
- a TCP segment carrying web traffic
- an IP segment carrying e-mail traffic

28 What is the purpose of the **ping** command? (Choose three.)

- to test for path-to-host reliability
- to check for delays over a path
- to see if data has been delivered correctly and orderly
- to determine whether hosts can be reached
- to make remote connections

29 What is true about windowing?

- It always requires separate acknowledgements for each segment sent.
- It controls the amount of data that can be sent before acknowledgement is required.
- It requires the sender to re-establish a connection if no acknowledgement is received.
- It allows TCP/IP to measure transmitted data in segments.

30 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

Showing 2 of 4

60 A network administrator has a multi-floor LAN to monitor and maintain. Through careful monitoring, the administrator has noticed a large amount of broadcast traffic slowing the network. Which device would you use to best solve this problem?

- bridge
- hub
- router
- transceiver



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Time Remaining:

- 31 Which term describes an ARP response by a router on behalf of a requesting host?
- ARP
  - RARP
  - Proxy ARP
  - Proxy RARP
- 32 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 another host before additional data segments are sent.
  - PAR is used to renegotiate the window size during the synchronization process.
- 33 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
- 34 Which command displays the active configuration file of a router?
- Display startup-config
  - Display running-config
  - Show running-config
  - Show startup-config
- 35 In reference to the TCP/IP model, which protocol is used to determine the network access layer address associated with a known Internet layer address?
- ARP
  - ICMP
  - IP
  - RARP
  - TCP
  - UDP
- 36 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
- 37 How are originating source port numbers assigned during the data encapsulation process?
- assigned manually by the user when starting the application
  - assigned dynamically by the source host
  - assigned by the routing protocol during the lookup process
  - assigned by the destination host during session negotiation

- 38 Which of the following describes the function of the data link layer?
- best path selection
  - establishment and maintenance of virtual circuits
  - data exchange between presentation layer entities
  - media access, ordered delivery of frames, and physical addressing
- 39 Which OSI layer performs the following types of encapsulation: ISDN, Frame Relay, and HDLC?
- Network
  - Session
  - Data link
  - Transport
- 40 An administrator is attempting to enable CDP on the interface of a Cisco router. After issuing the command Router(config-if)# **cdp enable**, the router responds with an error stating that CDP is not active. What might be the problem?
- The **cdp enable** command must be issued from the global mode prompt.
  - The administrator needed to issue the command Router(config-if)# **cdp run**.
  - CDP has not been configured globally.
  - The administrator did not manually enter the CDP neighbors into the CDP table.
- 41 What is the correct sequence of initialization for a router that has a configuration file?
- Loads bootstrap, loads configuration file, loads operating system
  - Loads bootstrap, loads operating system, loads configuration file
  - Loads bootstrap, loads RAM, loads operating system
  - Loads operating system, loads configuration file, loads RAM
- 42 Which part of an IP address identifies a specific device on a network?
- first two octets
  - third and fourth octets
  - network portion
  - host portion
  - only the fourth octet
- 43 What steps must occur for devices to communicate between different physical network segments? (Choose two.)
- learning the IP address of the source device
  - obtaining the MAC address of the intermediate device
  - transferring the data packets from one network segment to another to reach the destination host
  - obtaining the IP address of the local host
- 44 Using the IP address 38.159.163.37 with a subnet mask 255.255.255.240, determine the subnetwork address.
- 38.159.0.0
  - 38.159.163.0
  - 38.159.163.16
  - 38.159.163.32
  - 38.159.163.36
- 45 What is a disadvantage of cut-through switching?
- no error checking
  - a decrease in error checking
  - decrease in number of collision domains
  - decrease in bandwidth
  - increased latency



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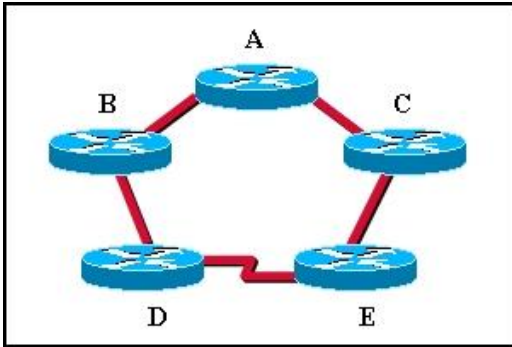
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Time Remaining:

- 46 Which list contains only routed protocols?
- AppleTalk, IP, EIGRP
  - IP, AppleTalk, IPX
  - IP, RIP, IPX
  - IPX, OSPF, EIGRP
- 47 What are some of the advantages of using a link-state routing protocol instead of a distance vector routing protocol? (Choose two.)
- The topology database eliminates the need for a routing table.
  - Frequent periodic updates are sent to minimize the number of incorrect routes in the topological database.
  - Routers have direct knowledge of all links in the network and how they are connected.
  - After the initial LSA flooding, they generally require less bandwidth to communicate changes in a topology.
  - Link-state protocols require less router processor power than distance vector protocols.
- 48 Routers have different types of memory. Choose the answer that describes ROM.
- provides working storage
  - stores a fully functional IOS image
  - stores the startup configuration file
  - initializes the code used to boot the router
- 49 An IP network is to be added to a router Ethernet interface. What steps must be performed to configure this interface to allow connectivity to the hosts on this LAN? (Choose two.)
- Enter the command **no shutdown**.
  - A password must be set on the interface.
  - The interface DCE clock rate must be set.
  - The interface must be configured for virtual terminal access.
  - The interface must be configured with an IP address and subnet mask.
  - The router must be put in setup mode in order for the interface to be configured.
- 50 The code field in an ICMP destination unreachable message indicates the reason that a packet could not be delivered. Which three are valid destination unreachable code values? (Choose three.)
- network unreachable
  - domain unreachable
  - gateway unreachable
  - host unreachable
  - protocol unreachable
- 51 How is a MAC address represented?
- four groups of eight binary digits separated by a decimal point
  - four Base10 digits separated by a decimal point
  - six hexadecimal digits
  - twelve hexadecimal digits
  - twenty-four Base10 digits
- 52 Which of the following devices divides traffic into segments and filters traffic based on the station or MAC address? (Choose two.)
- switch
  - router
  - bridge

€ repeater

53



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.

54 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.

55 How many bits are available for Class B host IP addresses using the default subnet mask?

- 1
- 4
- 8
- 14
- 16
- 24

56 Given a host with the IP address 172.32.65.13 and a default subnet mask, to which network does the host belong?

- 172.32.65.0
- 172.32.65.32
- 172.32.0.0
- 172.32.32.0

57 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

58 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

59 When a host receives a data segment, what allows the host to determine which application should receive the segment?

- IP source address
- IP destination address
- PAR
- sliding window
- port number
- SYN packet

- 60 A network administrator has a multi-floor LAN to monitor and maintain. Through careful monitoring, the administrator has noticed a large amount of broadcast traffic slowing the network. Which device would you use to best solve this problem?
- bridge
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## Exam Results - Voucher Exam - CCNA 2 Router and Routing Basics - Version 3.1

Date Exam was Taken: XX/XX/2006

### Domain Knowledge - Weighted Score

Max Points:	127
Earned Points:	108
Percentage:	85.0%
Proficiency Category Name:	Voucher Eligible

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### Domain Knowledge - Binary Score

Max Points:	60
Earned Points:	49
Percentage:	81.7%