CCNA1 Final Exam version 4.0 (88%)

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1.
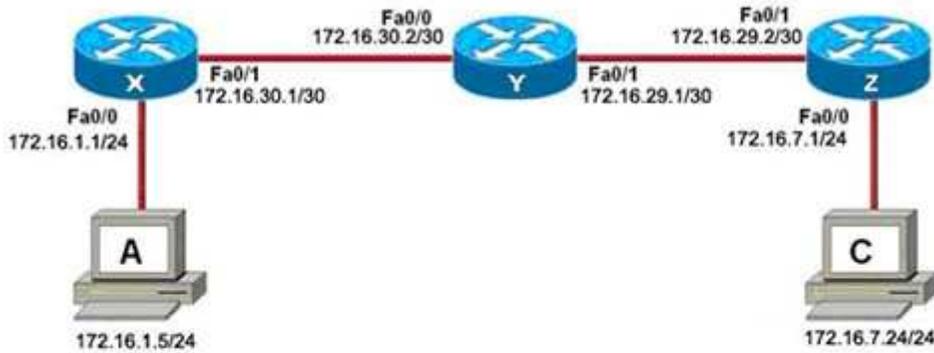
Host A attempts to establish a TCP/IP session with host C...

Refer to the exhibit. Host A attempts to establish a TSP/IP session with host C. During this attempt, a frame was captured at the FastEthernet interface fa0/1 of router Y. The packet inside the captured frame has the IP source address 172.16.1.5 and the destination IP address is 172.16.7.24 . What is the source MAC address of the frame at the time of capture?
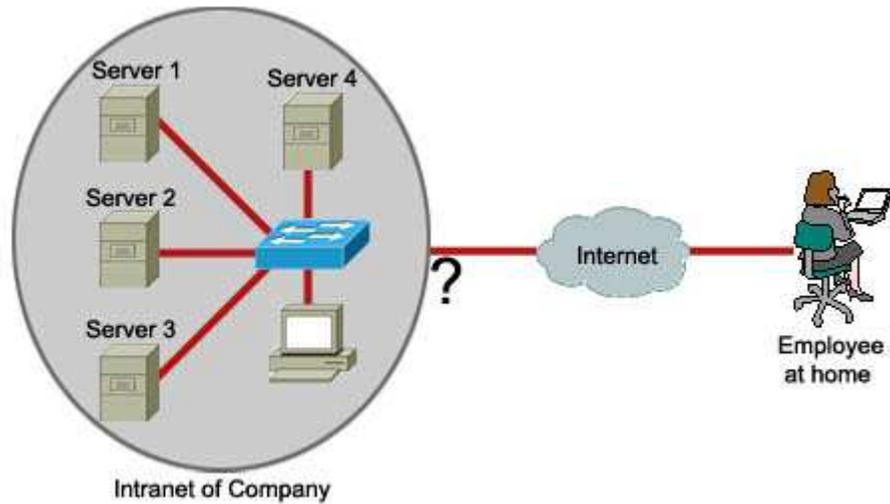
0040.8596.DE82

**0060.7320.B826

0060.7320.D632

0010.4F74.AC09

0040.8596.DE81

2.

Refer to the exhibit. An employee wants to access the organization intranet from home. Which intermediary device should be used to connect the organization intranet to the Internet to enable this access?
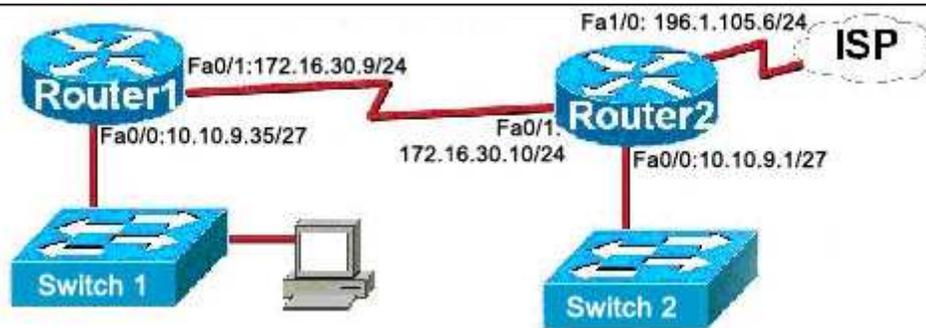hub
switch
**router
wireless access point

3.

The host was disconnected from switch 2 and connected to switch 1. Which combination of IP address, subnet mask, and default gateway should be assigned to this host to allow it to function in the network?

Refer to the exhibit. The host was disconnected from switch 2 and connected to switch 1. Which combination of IP address, subnet mask, and default gateway should be assigned to this host to allow it to function in the network?

IP address: 10.10.9.37 Subnet mask: 255.255.255.240 Default gateway: 10.10.9.35
****IP address: 10.10.9.37 Subnet mask: 255.255.255.224 Default gateway: 10.10.9.35**
IP address: 10.10.9.29 Subnet mask: 255.255.255.248 Default gateway: 10.10.9.35

IP address: 10.10.9.32 Subnet mask: 255.255.255.224 Default gateway: 10.10.9.35
IP address: 10.10.9.37 Subnet mask: 255.255.255.224 Default gateway: 196.1.105.6
IP address: 10.10.9.63 Subnet mask: 255.255.255.224 Default gateway: 10.10.9.35

4. Which range of port numbers is assigned dynamically to client applications when initiating a connection to the server?
0 to 255
49152 to 65535
**1024 to 49151
0 to 1023

5.
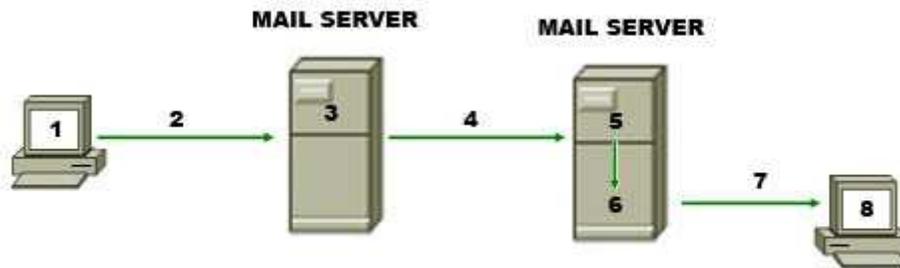
Refer to the exhibit. The diagram represents the process of sending e-mail between clients. Which list correctly identifies the component or protocol used at each numbered stage of the diagram?
1.MUA 2.MDA 3.MTA 4.SMTP 5.MTA 6.POP 7.MDA 8.MUA
1.MUA 2.POP 3.MDA 4.SMTP 5.MTA 6.MDA 7.SMTP 8.MUA
1.MUA 2.POP 3.SMTP 4.MDA 5.MTA 6.SMTP 7.POP 8.MUA
**1.MUA 2.SMTP 3.MTA 4.SMTP 5.MTA 6.MDA 7.POP 8.MUA

6. Refer to the exhibit. While configuring a network, a technician wired each end of a Category 5e cable as shown. Which two statements are true about this setup? (Choose two.)

**The cable is suitable for connecting a switch to a router Ethernet port.
**The cable is suitable for connecting dissimilar types of devices.
The cable is unusable and must be rewired.
The cable is terminated in a way that the transmit pin is wired to the receive pin.
The cable simulates a point-to-point WAN link.

7. Refer to the exhibit. Which two facts can be determined about the topology? (Choose two.)

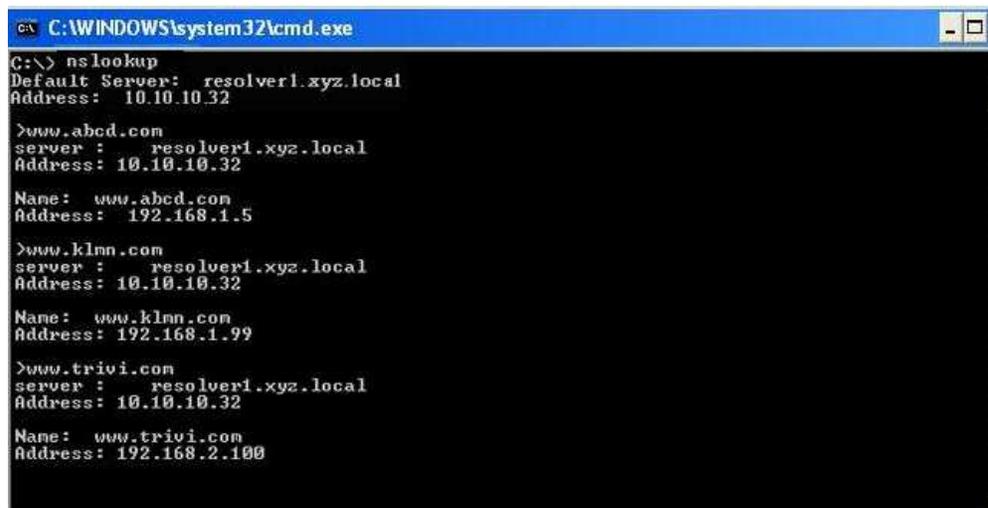****Four collision domains are present.**
One logical network is represented.
**Two broadcast domains are present.
Three networks are needed.
Three logical address ranges are required.

8.

```
C:\WINDOWS\system32\cmd.exe                                    _ □

C:\> nslookup
Default Server:   resolver1.xyz.local
Address:   10.10.10.32

>www.abcd.com
server :     resolver1.xyz.local
Address: 10.10.10.32

Name:   www.abcd.com
Address:   192.168.1.5

>www.klmn.com
server :     resolver1.xyz.local
Address: 10.10.10.32

Name:   www.klmn.com
Address: 192.168.1.99

>www.trivi.com
server :     resolver1.xyz.local
Address: 10.10.10.32

Name:   www.trivi.com
Address: 192.168.2.100
```

nslookup command on the PC

Refer to exhibit. A technician uses the nslookup command on the PC and views the output that is displayed in the exhibit. What is the IP address of the primary domain name server used by the host?

**10.10.10.32
192.168.1.5
192.168.1.99
192.168.2.100

9. Which subnet mask will allow 2040 hosts per subnet on the IP network 10.0.0.0?
255.255.0.0
255.255.254.0
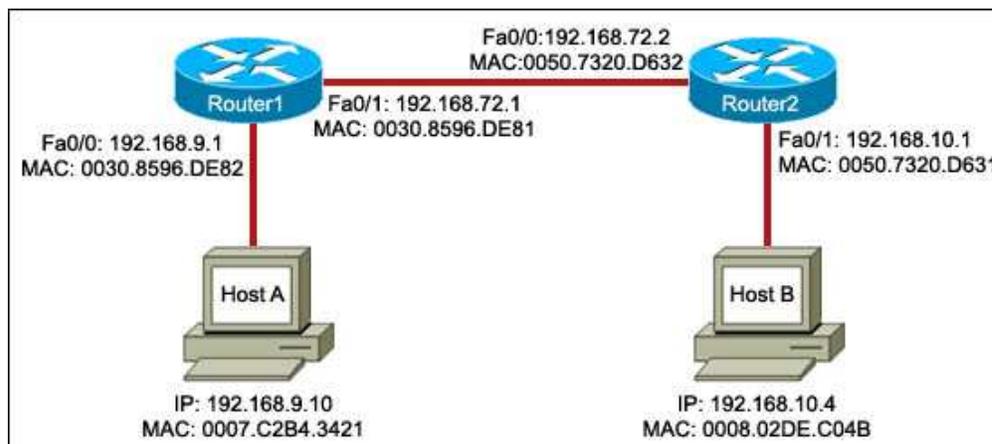255.255.252.0
**255.255.248.0
255.255.240.0
255.255.255.128

10. Which three addresses belong to the category of private IP addresses? (Choose three.)
**10.0.0.1
127.0.0.1
150.0.0.1
**172.16.0.1
**192.168.0.1
200.100.50.1

11.

Host A is transmitting data to host B. Which address combination will be used as the data leaves the Router1 Fa0/1 interface?

Refer to the exhibit. Host A is transmitting data to host B. Which address combination will be used as the data leaves the Router1 Fa0/1 interface?
Destination IP: 192.168.72.2 Source MAC: 0007.C2B4.3421
**Destination IP: 192.168.10.4 Source MAC: 0030.8596.DE81
Destination IP: 192.168.10.4 Source MAC: 0007.C2B4.3421
Destination IP: 192.168.72.2 Source MAC: 0030.8596.DE81

12. Which memory contents will change as a result of using the Router# erase startup-config command on a router?
RAM
ROM
flash
**NVRAM

**13. What are two characteristics of the data link layer? (Choose two.)**
**It segments and reorders the data.
It exchanges the frames between nodes.
**It defines the method by which network devices place data onto the media.

It manages the transfer of data between the processes that run on each host.
It retrieves signals from the media and restores them to their bit representations.

14. Refer to the exhibit. The NAT functionality of the router is enabled to provide the PC with Internet access. Which IP address can be assigned to router interface Fa0/0?
10.0.0.1
172.16.1.1
**209.165.201.1
192.168.1.1

15.
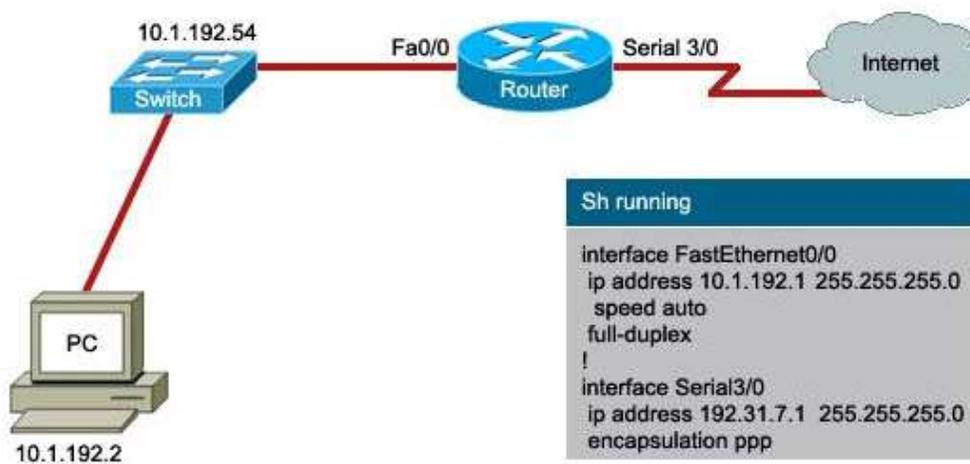
A user wants to access the Internet from the PC. A part of the running configuration of the router is shown

Refer to the exhibit. A user wants to access the Internet from the PC. A part of the running configuration of the router is shown. Which default gateway IP address should be configured at the PC to enable this access?
10.1.192.2
10.1.192.54
**10.1.192.1
192.31.7.1

16. Refer to the exhibit. A network technician wants to connect host A to the console of a Cisco switch to initialize the configuration. What type of cable is required for this connection?
straight-through cable
crossover cable
**rollover cable
serial cable

17. A network administrator wants to restrict access to the router privileged EXEC mode. Which password should the administrator use?
**enable
aux
console
VTY

18. What are three characteristics of CSMA/CD? (Choose three.)
**Devices listen to the media and transmit data only when they cannot detect another signal on the media.
**All devices on the media can hear all communications.
Devices communicate based on a configured priority.
After a collision occurs, the devices that caused the collision have first priority when attempting to retransmit.
**When a collision occurs, all devices stop transmitting for a randomly generated period of time.
CSMA/CD uses a token system to avoid collisions.

19. Refer to the exhibit. The router of the company failed and was replaced. After the replacement, hosts C and D in the Education office are able to ping each other, but they are unable to access the hosts in the Accounts office. What is the likely cause of the problem?
The IP address at the fa0/0 interface of the router is incorrectly configured.
**The subnet mask at the fa0/1 interface of the router is incorrectly entered.
The IP address at the serial interface of the router is incorrectly configured.
The hosts in the Accounts office are not on the same subnet as the hosts in the Education office.

20. Refer to the exhibit. Host A and B are unable to communicate with each other. What is the reason for this?
Host A is assigned a network address.
Host B is assigned a multicast address.
Host A and host B belong to different networks.
**The gateway addresses are network addresses.

21. Refer to the exhibit. A user wants to view the current configuration. The output of the ipconfig/all command is displayed in the exhibit. What three facts can be determined from the output? (Choose three.)
The IP address is obtained from the DHCP server.
**This PC cannot communicate with other networks.
**The network can have 14 hosts.
The prefix of the computer address is /25.
The IP address is routable on the Internet.
**The assigned address is a private address.

22. Which two types of media can provide bandwidth up to 1 Gb/s? (Choose two.)

10 BASE-T
100 BASE-T
100 BASE-FX
**1000 BASE-TX
**1000 BASE-SX

**23. Refer to the exhibit. RouterB is configured properly.
The Ethernet interface Fa0/0 of RouterA is configured with the use of the commands that are shown However, a ping from the Fa0/0 interface of RouterA to the Fa0/0 interface of RouterB is unsuccessful. What action should be taken on RouterA to solve this problem?**

Use the description command on the FastEthernet interface Fa0/0.
Configure the clock rate of the FastEthernet interface Fa0/0.
**Use the no shutdown command on the FastEthernet interface Fa0/0.
Reboot the router.

24. Refer to the exhibit. Host A wants to connect to host B on a different network. Which three IP addresses can be assigned to host A to enable this connectivity? (Choose three.)

172.16.11.36
172.16.11.95
**172.16.11.88
**172.16.11.70
172.16.11.64
**172.16.11.67

25. Refer to the exhibit. Host A wants to access e-mail. Which destination socket number will be used to communicate this request?
10.10.1.2:53
0007.A7B8.0008:25
10.10.1.3:23
**10.10.1.3:25

26. A network administrator uses the copy startup-config running-config command on a router to make configuration changes. Which component is affected by this command?
ROM
**NVRAM
RAM
flash

27. Refer to the exhibit. In a network, Hosts A and B are exchanging segments at the transport layer. Which two statements are true about this exchange? (Choose two.)

Host A is transferring files to host B using FTP.
**Host A will send the next segment containing data for this session starting with byte number 11
The segment from the destination host indicates that 11 bytes have been received successfully
**Host A is initiating a Telnet session to host B
Host B can send the next segment of the data starting with byte number 2

28. How does the transport layer allow a host to maintain multiple, simultaneous communication streams across different applications?
It uses error control mechanisms.
**It uses a connectionless protocol only for multiple simultaneous transmissions.
It uses multiple Layer 2 source addresses.
It uses multiple ports.

29. What information is contained in the header of Layer 3 to help data delivery?
port number
device physical address
**destination host logical address
virtual connection identifier

30. Refer to the exhibit. The tracert command used from host X to host Y was successful. What is the correct sequence of intermediary network devices that will be present in the trace list?
switch A, switch D, switch G, host Y
**router B, router E, router F, host Y
switch A, router B, switch D, router E, router F, switch G, host Y
switch A, router B, router F, switch G, host Y

31. While configuring a router, a network technician wants to name the router. Which prompt should the technician see when entering the hostname command?
Router>
Router#
**Router(config)#
Router(config-line)#

32. An organization has decided to use IP addresses in the range 172.20.128.0 to 172.20.143.255. Which combination of network ID and subnet mask identifies all IP addresses in this range?
Network ID: 172.20.128.0 Subnet mask: 255.255.255.0
Network ID: 172.20.128.0 Subnet mask: 255.255.0.0
Network ID: 172.20.128.0 Subnet mask: 255.255.224.0
**Network ID: 172.20.128.0 Subnet mask: 255.255.240.0
Network ID: 172.20.128.0 Subnet mask: 255.255.255.240

33. Refer to the exhibit. Which logical topology describes the exhibited network?
star
**ring
point-to-point
multi-access

34. Refer to the exhibit. All devices in the network use default configurations. How many broadcast domains are there in this topology?

3
**5
7
9
11

35. Which three IPv4 addresses represent valid network addresses for a subnet? (Choose three.)
192.168.9.64/28
**192.168.9.146/28
192.168.9.96/28
**192.168.9.129/26
**192.168.9.51/26
192.168.9.64/26

36. **Two routers are connected via their serial ports in a lab environment. The routers are configured with valid IP addresses, but they cannot ping each other. The show interface serial0/0 command shows that the serial0/0 interface is up but the line protocol is down. What could be the cause of this problem?**
The no shutdown command has not been applied to the interfaces.
**The clock rate command has not been entered on the DCE interface.
The interface timers are not cleared.
The FastEthernet interface is emulating a serial interface by assigning it a timing signal.

37. Which device should be used for enabling a host to communicate with another host on a different network?
switch
hub
**router
host

38. Refer to the exhibit. The network administrator uses the netstat command to display the open, active, and running TCP connections on a networked host. The exhibit displays the output of this command. Which two facts can be determined from this output for accessing www.cisco.com? (Choose two.)

www.ccna-4.blogspot.com

www.ccna4u.tk

The source port indicates that the session is an http session.
The connection is not successful.
The source port of the host is 3166.
The destination port is 80.
The source port does not support communication with the destination port that is listed.
The source port indicates that a UDP session has been initiated.

39. Which OSI layer uses the header information to reassemble the data segments into streams?

application layer
network layer
presentation layer
session layer
transport layer

40. Which three statements are true about transport layer protocols? (Choose three.)
The UDP transport layer protocol provides for low overhead data delivery.
The TCP transport layer protocol uses windowing and acknowledgments for reliable transfer of data.
The TCP and UDP port numbers are used by application layer protocols.
The TCP transport layer protocol provides services to direct the data packets to their destination hosts.
The UDP transport layer protocol is a connection-oriented protocol.
The UDP transport layer protocol keeps track of all the data segments in each conversation.

41. To enhance security in a network, the network administrator uses these commands:

Router(config)# line console 0
Router(config-line)# password j1mdi2
Router(config-line)# login
What two conclusions are evident from these commands? (Choose two.)
Users who attempt to connect to the console port of the router must enter a password.
The entries permit access through the console by the use of j1mdi2 as the password.
The entries eliminate the need for authentication.
Access through the console will be denied because the console configuration is incomplete.
The entries prevent passwords from being displayed as plain text.

42. Refer to the exhibit. Each media link is labeled. What type of cable should be used to connect the different devices?

11

Connection 1 - straight-through cable Connection 2 - straight-through cable Connection 3 - crossover cable

Connection 1 - straight-through cable Connection 2 - crossover cable Connection 3 - rollover cable

Connection 1 - crossover cable Connection 2 - rollover cable Connection 3 - straight-through cable

**Connection 1 - crossover cable Connection 2 - straight-through cable Connection 3 - crossover cable

Connection 1 - straight-through cable Connection 2 - rollover cable Connection 3 - crossover cable

43. Refer to the exhibit. The headers added at each layer are shown.
Which layer adds the destination and source process numbers to ensure that data is delivered to the correct application?
physical layer
data link layer
network layer
**transport layer

44. Which three statements are true about network layer addressing? (Choose three.)
It uses the last octet of the IP address to identify the network.
**It supports data communications between networks.
**It is configured by the network technician.
It is a 16-bit IPv4 address.
It prevents broadcasts.
**It uniquely identifies each host.

45. Refer to the exhibit. A PC is connected to a network. Which action will verify that the PC can communicate with its default gateway?
Use the ping 127.0.0.1 command.
Use the ipconfig command.
Use the ipconfig/all command.
**Use the ping 10.0.0.254 command.

46. Refer to the exhibit. Host A sends a frame with the destination MAC address as FFFF.FFFF.FFFF. What action will the switch take for this frame?
It will drop the frame.
It will send the frame back to host A.
**It will send the frame to all hosts except host A.
It will forward the frame to the default gateway.

47. Refer to the exhibit. The network administrator remotely accesses the CLI of RouterB from PC1 using a secure connection. Which statement is true about this connection?
The Telnet server process is running on PC1.

Only the exchange of the Telnet username and password is encrypted.
The GET request is sent to RouterA to retrieve data.
**The SSH service is used to connect PC1 to RouterB.

48. Which OSI layer uses the header information to reassemble the data segments into streams?
application layer
network layer
presentation layer
session layer
**transport layer

49. Refer to the exhibit. A router, the table of which is shown, receives a packet that is destined for 192.168.9.4. How will the router treat the packet?
It will drop the packet.
It will forward the packet via FastEthernet 0/1.
**It will forward the packet to the next hop address.
It will forward the packet to 172.16.2.0

50. Refer to the exhibit. Cable 1 and Cable 2 are wired for specific physical layer requirements. The table lists each segment by number and the cable that connects the network components on that segment. Which three segments have the correct cables installed? (Choose three.)

**segment 1
segment 2
segment 3
**segment 4
**segment 5
segment 6

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