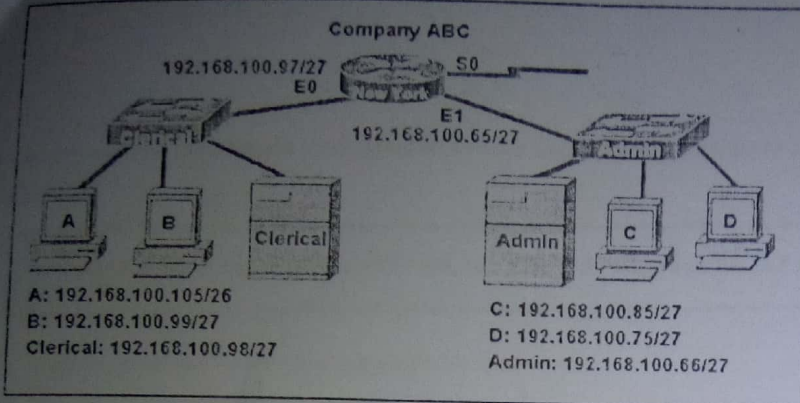Examine the graphic with current configurations. Host A in the Clerical offices failed and was replaced. Although a ping to 127.0.0.1 was successful, the replacement computer can not access the company network. What is the likely cause of the problem?

Company ABC

192.168.100.97/27   S0
E0
E1
192.168.100.65/27

A   B   Clerical   Admin   C   D

A: 192.168.100.105/26
B: 192.168.100.99/27
Clerical: 192.168.100.98/27

C: 192.168.100.85/27
D: 192.168.100.75/27
Admin: 192.168.100.66/27

IP address incorrectly entered

network cables unplugged

subnet mask incorrectly entered

network card failure

Refer to the exhibit. A network administrator is testing the configuration on a host computer. What type of address is 127.0.0.1?

```
C:\>ping 127.0.0.1

Pinging 127.0.0.1 with 32 bytes of data:

Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128

Ping statistics for 127.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

link-local

loopback

public

default route

What portion of the IP address does the prefix represent?

broadcast

host

network

unicast

nich is true regarding IP network addresses?

    all host bits are set to 0

    all host bits are set to 1

    assigned the highest address in a range

    all network bits are set to 1

Refer to the exhibit. The numbers in the exhibit are part of a single subnet. Which statements are true regarding these numbers? (Choose three.)

> **192.168.223.59   192.168.223.107 192.168.223.117 192.168.223.127**

    Their final octet has 4 of the most significant bits in common.

    They have 5 low-order bits in common.

    They have 27 high-order bits in common.

    192.168.223.99 is a feasible network number for their range.

    255.255.255.224 is an appropriate mask for their range.

    192.168.223.127 is the broadcast address for their range.

Which frame field is created by a source node and used by a destination node to ensure that a transmitted data signal has not been altered by interference, distortion, or signal loss?

    transport layer error check field

    frame check sequence field

    User Datagram Protocol field

    error correction process field

    flow control field

What do network hosts use data link layer addresses for?

  • remote delivery

    local and remote delivery

    local delivery

    remote delivery using routers

Which three basic parts are common to all frame types supported by the data link layer? (Choose three.)

    header

    type field

    MTU size

    data

    trailer

    CRC value
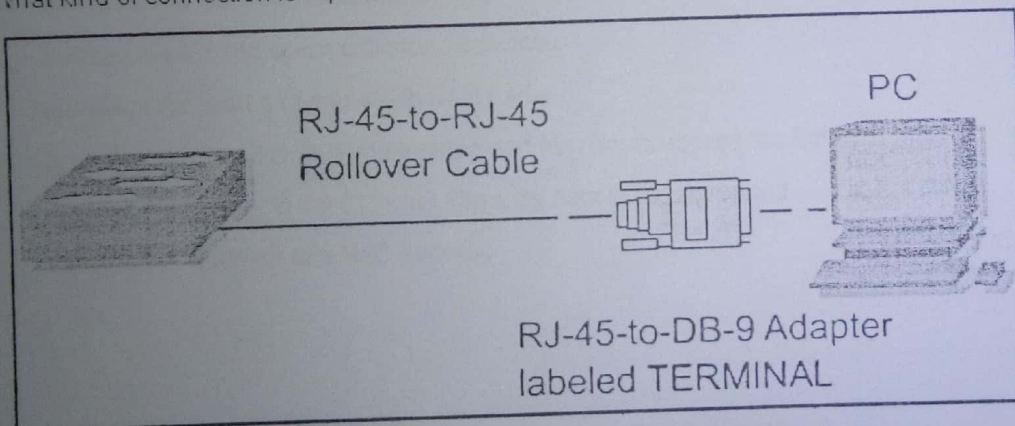
Which of the following are sublayers of the Data Link layer?

ACL, LMC

MAC, LAC

MAC, LLC

OSI, LLC

Which of the following are data link layer encapsulation details? (Choose two.)

A header and trailer are added.

Data is converted into packets.

Packets are packaged into frames.

Frames are divided into segments.

Packets are changed into bits for Internet travel.

What kind of connection is represented in the graphic?

console connection

Ethernet connection

ISDN connection

leased line connection

Through what process does UTP cable help to avoid crosstalk?

shielding of cable

twisting of pairs

grounding the end points

cladding in cable

What cable type would be used to connect a computer directly to another computer?

Straight-through

Rollover

Crossover

Console

What are the advantages of using fiber optic cable over copper cable? (Choose three.)

- copper is more expensive
- immunity to electromagnetic interference
- careful cable handling
- longer maximum cable length
- efficient electrical current transfer
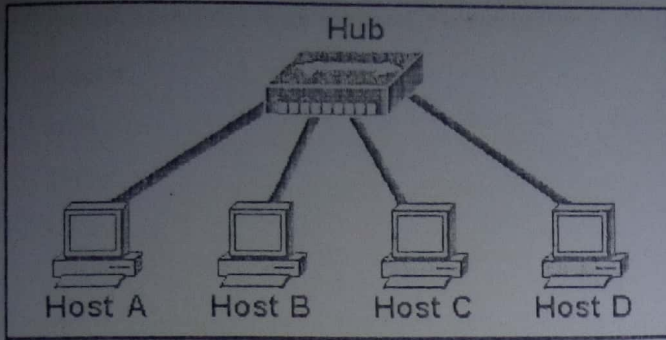- greater bandwidth potential

What is a primary function of CSMA/CD in an Ethernet network?

assigns MAC addresses to hosts

defines the area in which collisions can occur

identifies the start and end of Ethernet frame

provides a method to determine when and how hosts access the Ethernet medium

creates the header in the Ethernet frame as data is encapsulated

maps an IP address to a MAC address

What address type does a switch use to make selective forwarding decisions?
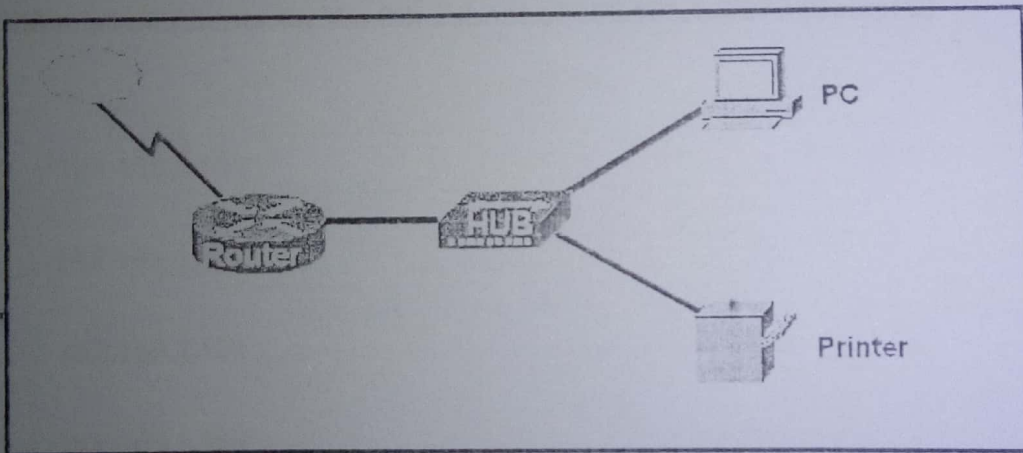
source IP

destination IP

source MAC

destination MAC

the graphic. Host A has reached 50% completion in sending a 1 KB Ethernet frame to Host D when Host B wishes to transmit its own frame to Host C. What must Host B do?

Hub

Host A   Host B   Host C   Host D

- Host B can transmit immediately since it is connected on its own cable segment.

  Host B must wait to receive a CSMA transmission from the hub, to signal its turn.

  Host B must send a request signal to Host A by transmitting an interframe gap.

  Host B must wait until it is certain that Host A has completed sending its frame.

Which devices shown in the graphic must have a MAC address?

PC

Router   HUB

Printer

only PC

only router

PC and router

PC, hub, and router

PC, printer, and router

Which of the following are private IP addresses? (Choose three.)

10.1.1.1

172.32.5.2

192.167.10.10

172.16.4.4

192.168.5.5

224.6.6.6

Which utility shows the route a packet takes to reach its destination?

netstat

ping

Telnet

traceroute

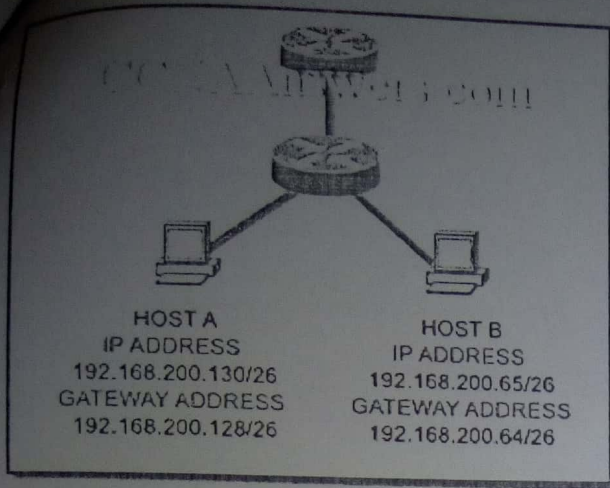.. Which combination of network id and subnet mask correctly identifies all IP addresses from 172.16.128.0 through 172.16.159.255?

A. 172.16.128.0 255.255.255.224
B. 172.16.128.0 255.255.0.0
C. 172.16.128.0 255.255.192.0
D. 172.16.128.0 255.255.224.0
E. 172.16.128.0 255.255.255.192

What are valid hosts for the 6th subnet of 192.168.1.0/27? (Select 2)

☐ 192.168.1.167

☐ 192.168.1.192

☐ 192.168.1.191

☐ 192.168.1.159

☐ 192.168.1.175

. Which addresses belong to the category of public IP addresses? (Choose two.)
- 127.0.0.1
- 196.1.105.6
- 169.11.9.99
- 10.0.0.1
- 172.16.9.10
- 46.1.1.97

HOST A
IP ADDRESS
192.168.200.130/26
GATEWAY ADDRESS
192.168.200.128/26

HOST B
IP ADDRESS
192.168.200.65/26
GATEWAY ADDRESS
192.168.200.64/26

Refer to the exhibit. Host A and B are unable to communicate with each other. What is the reason for this?

a) Host A is assigned a network address.
b) Host B is assigned a multicast address.
c) Host A and host B belong to different networks.
d) The gateway addresses are network addresses.

-What is the netmask of the gateway interface in a sub-network where only 14 hosts may exist and IP address of one of the hosts is 193.145.122.76 ?
- a) 255.255.255.224
- b) 193.145.122.15
- c) 255.255.255.0
- d) 193.145.122.240
- e)255.255.255.240
- f) 255.255.0.0

-What is a broadcast IP address for 193.140.141.128 / 26 ?
- a)193.140.141.128
- b)193.140.141.127
- c)255.255.255.63
- d)255.255.255.191
  e)193.140.141.191