

CCNA 1 Chapter 5 v5.0 Exam Answers 2013

1

Match the characteristic to the forwarding method. (Not all options are used.)

always stores the entire frame	cut-through	Target
checks the CRC before forwarding		Target
checks the frame length before forwarding		Target
does not forward broadcasts		
has low latency		
may forward runt frames		
begins forwarding when the destination address is received		
	store-and-forward	Target
		Target
		Target

Match the characteristic to the forwarding method. (Not all options are used.)

	cut-through	has low latency
		may forward runt frames
		begins forwarding when the destination address is received
does not forward broadcasts		
	store-and-forward	always stores the entire frame
		checks the CRC before forwarding
		checks the frame length before forwarding

2

A host is trying to send a packet to a device on a remote LAN segment, but there are currently no mappings in its ARP cache. How will the device obtain a destination MAC address?

It will send a request to the DNS server for the destination MAC address.

It will send an ARP request for the MAC address of the destination device.

It will send the frame and use its own MAC address as the destination.

It will send the frame with a broadcast MAC address.

It will send an ARP request for the MAC address of the default gateway.*

3

Which address or combination of addresses does a Layer 3 switch use to make forwarding decisions?

MAC and IP addresses*

MAC address only

MAC and port addresses

port address only

IP address only

4

What are two potential network problems that can result from ARP operation? (Choose two.)

Multiple ARP replies result in the switch MAC address table containing entries that match the MAC addresses of hosts that are connected to the relevant switch port.

On large networks with low bandwidth, multiple ARP broadcasts could cause data communication delays.*

Network attackers could manipulate MAC address and IP address mappings in ARP messages with the intent of intercepting network traffic.*

Manually configuring static ARP associations could facilitate ARP poisoning or MAC address spoofing.

Large numbers of ARP request broadcasts could cause the host MAC address table to overflow and prevent the host from communicating on the network.

5

Launch PT Hide and Save PT

Open the PT Activity. Perform the tasks in the activity instruction and then answer the question.

The screenshot shows a Cisco Packet Tracer assessment window. On the left, a 'PT Activity' window contains the following text:

1. Send some ICMP traffic between PC1 and PC2.
2. Review the ARP cache on PC1.

What destination address will PC1 include in the destination address field of the Ethernet frame that it sends to PC2?

Return to the assessment to answer the question.

Time Elapsed: 00:02:34

Buttons: Top, Check Results, Reset Activity, <, 1/1, >

The main Packet Tracer window shows a network topology with a central 1841 Router1 connected to two 2950-24 Switch0 and Switch1. PC-PT PC1 (IP 192.168.0.18) is connected to Switch0, and PC-PT PC2 (IP 192.168.0.34) is connected to Switch1.

A Command Prompt window on PC1 shows the following output:

```

PC>
PC>
PC>
PC>
PC>
PC>ping 192.168.0.34
Pinging 192.168.0.34 with 32 bytes of data:
Reply from 192.168.0.34: bytes=32 time=0ms TTL=127
Reply from 192.168.0.34: bytes=32 time=0ms TTL=127
Reply from 192.168.0.34: bytes=32 time=1ms TTL=127
Reply from 192.168.0.34: bytes=32 time=0ms TTL=127

Ping statistics for 192.168.0.34:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>arp -a
Internet Address      Physical Address      Type
192.168.0.17          0030.a3e5.0401       dynamic
PC>

```

What destination address will PC1 include in the destination address field of the Ethernet frame that it sends to PC2?

00e0.b0be.8014

0030.a3e5.0401*

192.168.0.34

192.168.0.17

0007.ec35.a5c6

6
How does adding an Ethernet line card affect the form factor of a switch?

by increasing the back plane switching speed

by expanding the port density*

by expanding the NVRAM capacity

by making the switch stackable

7
Which two statements are correct about MAC and IP addresses during data transmission if NAT is not involved? (Choose two.)

Destination MAC addresses will never change in a frame that goes across seven routers.

A packet that has crossed four routers has changed the destination IP address four times.

Destination and source MAC addresses have local significance and change every time a frame goes from one LAN to another.*

Destination IP addresses in a packet header remain constant along the entire path to a target host.*

Every time a frame is encapsulated with a new destination MAC address, a new destination IP address is needed.

8

What is the Layer 2 multicast MAC address that corresponds to the Layer 3 IPv4 multicast address 224.139.34.56?

FE-80-00-0B-22-38

01-00-5E-0B-22-38*

FF-FF-FF-0B-22-38

00-00-00-0B-22-38

01-5E-00-0B-22-38

9

What is the purpose of the preamble in an Ethernet frame?

is used to identify the destination address

is used to identify the source address

is used as a padding for data

is used for timing synchronization*

10

A Layer 2 switch is used to switch incoming frames from a 1000BASE-T port to a port connected to a 100Base-T network. Which method of memory buffering would work best for this task?

level 1 cache buffering

shared memory buffering*

fixed configuration buffering

port-based buffering

11

A network administrator is connecting two modern switches using a straight-through cable. The switches are new and have never been configured. Which three statements are correct about the final result of the connection? (Choose three.)

The auto-MDIX feature will configure the interfaces eliminating the need for a crossover cable.*

The connection will not be possible unless the administrator changes the cable to a crossover cable.

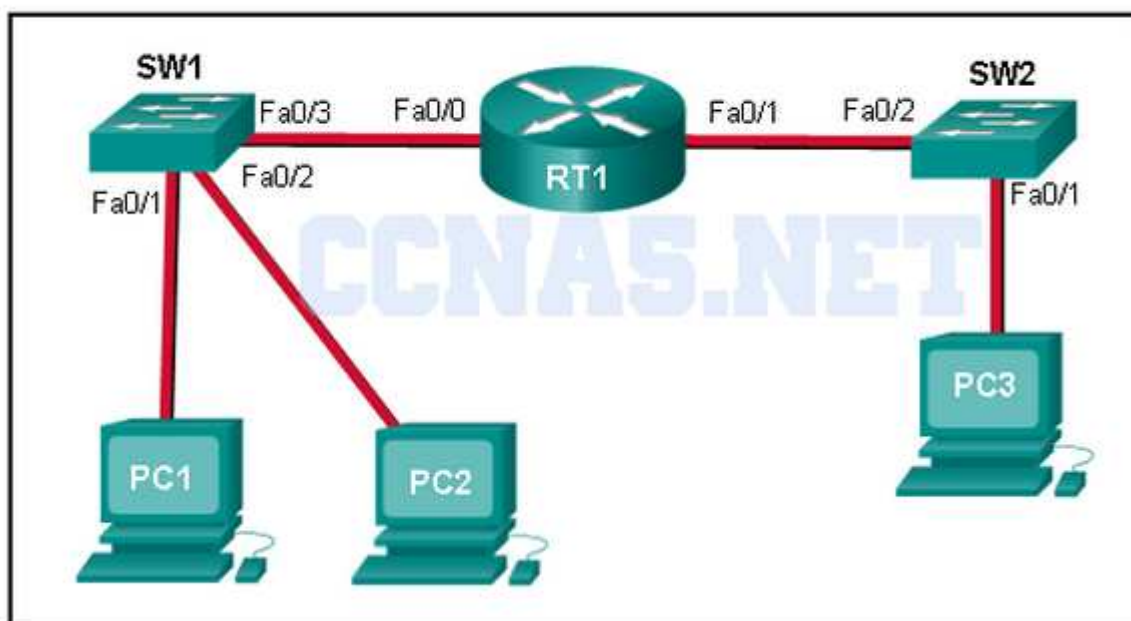
The duplex capability has to be manually configured because it cannot be negotiated.

If both switches support different speeds, they will each work at their own fastest speed.

The link between switches will work as full-duplex.*

The link between the switches will work at the fastest speed that is supported by both switches.*

12



Refer to the exhibit. PC1 issues an ARP request because it needs to send a packet to PC2. In this scenario, what will happen next?

RT1 will send an ARP reply with its Fa0/0 MAC address.

PC2 will send an ARP reply with its MAC address.*

RT1 will send an ARP reply with the PC2 MAC address.

SW1 will send an ARP reply with its Fa0/1 MAC address.

SW1 will send an ARP reply with the PC2 MAC address.

13

What is a characteristic of a contention-based access method?

It processes more overhead than the controlled access methods do.

It scales very well under heavy media use.

It is a nondeterministic method.*

It has mechanisms to track the turns to access the media.

14

What statement illustrates a drawback of the CSMA/CD access method?

Collisions can decrease network performance.*

Deterministic media access protocols slow network performance.

CSMA/CD LAN technologies are only available at slower speeds than other LAN technologies.

It is more complex than non-deterministic protocols.

15

When would a switch record multiple entries for a single switch port in its MAC address table?

when the switch is configured for Layer 3 switching

when another switch is connected to the switch port*

when a router is connected to the switch port

when multiple ARP broadcasts have been forwarded

16

Which two statements describe a fixed configuration Ethernet switch? (Choose two.)

An SVI cannot be configured on the switch.

A fixed configuration switch may be stackable.***The number of ports on the switch cannot be increased.***

The port density of the switch is determined by the Cisco IOS.

The switch cannot be configured with multiple VLANs.

17

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.*

The LLC sublayer interacts directly with the NIC driver software.

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.

Logical link control is specified in the IEEE 802.3 standard.

18

A network administrator issues the following commands on a Layer 3 switch:

```

DLS1(config)# interface f0/3
DLS1(config-if)# no switchport
DLS1(config-if)# ip address 172.16.0.1 255.255.255.0
DLS1(config-if)# no shutdown
DLS1(config-if)# end

```

What is the administrator configuring?

a Cisco Express Forwarding instance

a routed port*

a trunk interface

a switched virtual interface

19

Which statement is true about MAC addresses?

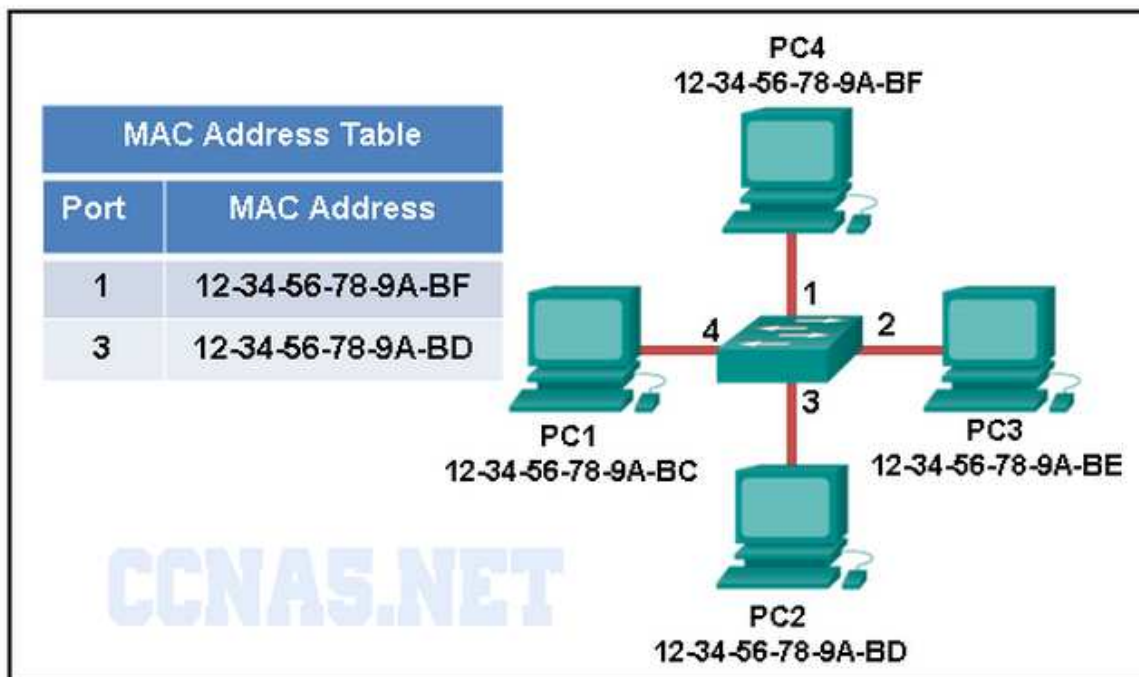
The first three bytes are used by the vendor assigned OUI.*

MAC addresses are implemented by software.

The ISO is responsible for MAC addresses regulations.

A NIC only needs a MAC address if connected to a WAN.

20



Refer to the exhibit. The exhibit shows a small switched network and the contents of the MAC address table of the switch. PC1 has sent a frame addressed to PC3. What will the switch do with the frame?

The switch will forward the frame to all ports.

The switch will forward the frame to all ports except port 4.*

The switch will forward the frame only to port 2.

The switch will discard the frame.

The switch will forward the frame only to ports 1 and 3.

21

Fill in the blank.

The binary number 0000 1010 can be expressed as "A" in hexadecimal.

22

What are two features of ARP? (Choose two.)

If a host is ready to send a packet to a local destination device and it has the IP address but not the MAC address of the destination, it generates an ARP broadcast.*

An ARP request is sent to all devices on the Ethernet LAN and contains the IP address of the destination host and its multicast MAC address.

When a host is encapsulating a packet into a frame, it refers to the MAC address table to determine the mapping of IP addresses to MAC addresses.

If a device receiving an ARP request has the destination IPv4 address, it responds with an ARP reply.*

If no device responds to the ARP request, then the originating node will broadcast the data packet to all devices on the network segment.

23

Match the seven fields of an Ethernet frame to their respective contents. (Not all options are used.)	
Beginning of frame - Field 1	Start Frame Delimiter
Field 2	Source MAC Address
Field 3	Encapsulated Data
Field 4	Flag
Field 5	Preamble
Field 6	Destination MAC Address
End of frame - Field 7	Length/Type
	Frame Check Sequence
	Session ID

Match the seven fields of an Ethernet frame to their respective contents. (Not all options are used.)

Field 2

Field 4

Field 6

Flag

Beginning of frame - Field 1

Field 3

Field 5

End of frame - Field 7

Session ID