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# **200-125<sup>Q&As</sup>**

CCNA Cisco Certified Network Associate CCNA

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Following Questions and Answers are all new published by Cisco  
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### QUESTION 1

Which two results occur when the ipv6 enable command is entered? (Choose two)

- A. An IPv6 EUI-64 interface ID is configured automatically on the interface.
- B. IPv6 is enabled on a single interface.
- C. An IPv6 link-local unicast address is configured automatically on the interface.
- D. The administrator is prompted to configure an IP address on the interface
- E. IPv6 is enabled globally on the device.

Correct Answer: BC

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### QUESTION 2

Which two pieces of information can you determine from the EIGRP topology table? (Choose two)

- A. Route 10.42.88.0/21 has an administrative distance of 28160
- B. Route 10.42.91.0/24 has a tag of 28160
- C. Each route has only one best path
- D. The EIGRP neighbor IP address is 10.111 253.216
- E. The reported distance of 10.0.0.0/8 is 0

Correct Answer: CE

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### QUESTION 3

What are three values that must be the same within a sequence of packets for Netflow to consider them a network flow? (Choose three.)

- A. source IP address
- B. source MAC address
- C. egress interface
- D. ingress interface
- E. destination IP address
- F. IP next-hop

Correct Answer: ADE

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Each packet that is forwarded within a router or switch is examined for a set of IP packet attributes. These attributes are the IP packet identity or fingerprint of the packet and determine if the packet is unique or similar to other packets. Traditionally, an IP Flow is based on a set of 5 and up to 7 IP packet attributes. IP Packet attributes used by NetFlow: ?IP source address ?IP destination address ?Source port ?Destination port ?Layer 3 protocol type ?Class of Service ?Router or switch interface All packets with the same source/destination IP address, source/destination ports, protocol interface and class of service are grouped into a flow and then packets and bytes are tallied. This methodology of fingerprinting or determining a flow is scalable because a large amount of network information is condensed into a database of NetFlow information called the NetFlow cache.

Reference: [http://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/ios-netflow/prod\\_white\\_paper0900aecd80406232.html](http://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/ios-netflow/prod_white_paper0900aecd80406232.html)

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#### QUESTION 4

In an Ethernet network, under what two scenarios can devices transmit? (Choose two.)

- A. when they receive a special token
- B. when there is a carrier
- C. when they detect no other devices are sending
- D. when the medium is idle
- E. when the server grants access

Correct Answer: CD

Ethernet network is a shared environment so all devices have the right to access to the medium. If more than one device transmits simultaneously, the signals collide and cannot reach the destination.

If a device detects another device is sending, it will wait for a specified amount of time before attempting to transmit.

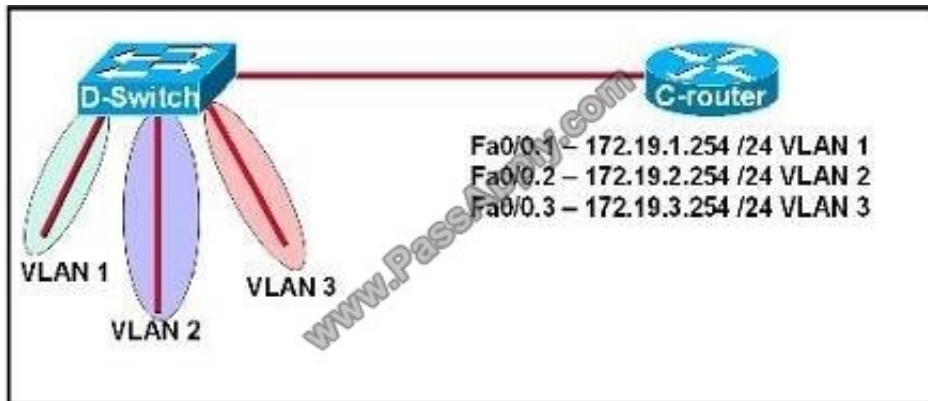
When there is no traffic detected, a device will transmit its message. While this transmission is occurring, the device continues to listen for traffic or collisions on the LAN. After the message is sent, the device returns to its default listening

mode.

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#### QUESTION 5

Refer to the exhibit.



C-router is to be used as a "router-on-a-stick" to route between the VLANs. All the interfaces have been properly configured and IP routing is operational. The hosts in the VLANs have been configured with the appropriate default gateway. What is true about this configuration?

- A. These commands need to be added to the configuration: C-router(config)# router eigrp 123 C-router(config-router)# network 172.19.0.0
- B. These commands need to be added to the configuration: C-router(config)# router ospf 1 C-router(config-router)# network 172.19.0.0 0.0.3.255 area 0
- C. These commands need to be added to the configuration: C-router(config)# router rip C-router(config-router)# network 172.19.0.0
- D. No further routing configuration is required.

Correct Answer: D

Since all the same router (C-router) is the default gateway for all three VLANs, all traffic destined to a different VLA will be sent to the C-router. The C-router will have knowledge of all three networks since they will appear as directly connected in the routing table. Since the C-router already knows how to get to all three networks, no routing protocols need to be configured.

## QUESTION 6

Which command shows your active Telnet connections?

- A. show cdp neighbors
- B. show session
- C. show users
- D. show vty logins

Correct Answer: B

The "show users" shows telnet/ssh connections to your router while "show sessions" shows telnet/ssh connections from your router (to other devices). The question asks about "your active Telnet connections", meaning connections from your router so the answer should be A.

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**QUESTION 7**

Which NTP command configures the local device as an NTP reference clock source?

- A. ntp peer
- B. ntp broadcast
- C. ntp master
- D. ntp server

Correct Answer: C

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**QUESTION 8**

Which two options are primary responsibilities of the APIC-EM controller? (Choose two.)

- A. It automates network actions between different device types
- B. It provides robust asset management.
- C. It tracks license usage and Cisco IOS versions.
- D. It automates network actions between legacy equipment.
- E. It makes network functions programmable.

Correct Answer: AE

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**QUESTION 9**

What can you change to select switch as root bridge?

- A. make lower priority
- B. make higher priority
- C. make lower path cost
- D. make higher path cost

Correct Answer: A

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**QUESTION 10**

Which two statements about IPv6 multicast address are true ?(choose two)

- A. If the lifetime parameter is set to 1,the route is permanent.

- 
- B. They use the prefix FC80::/8
  - C. They use the prefix FF00::/8
  - D. They identify a group of interfaces on different devices
  - E. If the scope parameter is set to 5, the route is local to the node

Correct Answer: CD

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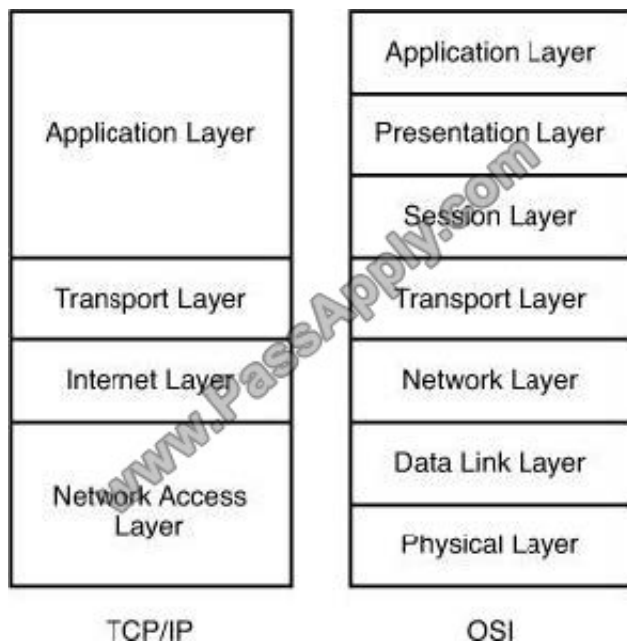
#### QUESTION 11

Where does routing occur within the DoD TCP/IP reference model?

- A. application
- B. internet
- C. network
- D. transport

Correct Answer: B

The picture below shows the comparison between TCP/IP model and OSI model. Notice that the Internet Layer of TCP/IP is equivalent to the Network Layer which is responsible for routing decision.



#### QUESTION 12

Which two are advantages of static routing when compared to dynamic routing? (Choose two.)

- A. Configuration complexity decreases as network size increases.

- 
- B. Security increases because only the network administrator may change the routing table.
  - C. Route summarization is computed automatically by the router.
  - D. Routing tables adapt automatically to topology changes.
  - E. An efficient algorithm is used to build routing tables, using automatic updates.
  - F. Routing updates are automatically sent to neighbors.
  - G. Routing traffic load is reduced when used in stub network links.

Correct Answer: BG

Since static routing is a manual process, it can be argued that it is more secure (and more prone to human errors) since the network administrator will need to make changes to the routing table directly. Also, in stub networks where there is only a single uplink connection, the load is reduced as stub routers just need a single static default route, instead of many routes that all have the same next hop IP address.

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### QUESTION 13

What will be the result if the following configuration commands are implemented on a Cisco switch? Switch(config-if)# switchport port-security Switch(config-if)# switchport port-security mac-address sticky

- A. A dynamically learned MAC address is saved in the startup-configuration file.
- B. A dynamically learned MAC address is saved in the running-configuration file.
- C. A dynamically learned MAC address is saved in the VLAN database.
- D. Statically configured MAC addresses are saved in the startup-configuration file if frames from that address are received.
- E. Statically configured MAC addresses are saved in the running-configuration file if frames from that address are received.

Correct Answer: B

In the interface configuration mode, the command switchport port-security mac-address sticky enables sticky learning. When entering this command, the interface converts all the dynamic secure MAC addresses to sticky secure MAC addresses.

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### QUESTION 14

Which type of topology is required by DMVPN?

- A. ring
- B. full mesh
- C. hub-and-spoke
- D. partial mesh

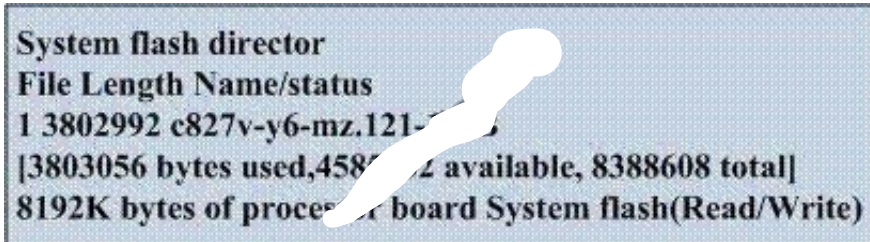
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Correct Answer: C

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### QUESTION 15

Refer to the exhibit.



```
System flash director
File Length Name/status
1 3802992 c827v-y6-mz.121-2
[3803056 bytes used, 4585024 bytes available, 8388608 total]
8192K bytes of processor board System flash(Read/Write)
```

The technician wants to upload a new IOS in the router while keeping the existing IOS. What is the maximum size of an IOS file that could be loaded if the original IOS is also kept in flash?

- A. 3 MB
- B. 4 MB
- C. 5 MB
- D. 7 MB
- E. 8 MB

Correct Answer: B

In this example, there are a total of 8 MB, but 3.8 are being used already, so another file as large as 4MB can be loaded in addition to the original file.

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### QUESTION 16

From which PPPoE server configuration does a PPPoE client get an IP address?

- A. AAA authentication
- B. DHCP
- C. dialer interface
- D. virtual-template interface

Correct Answer: D

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### QUESTION 17

Which two statements about RIPv2 are true? (Choose two )



- 
- A. It must be manually enabled after RIP is configured as the routing protocol
  - B. It uses multicast address 224.0.0.2 to share routing information between peers
  - C. its default administrative distances 120
  - D. It is a link-state routing protocol
  - E. It is an EGP routing protocol

Correct Answer: AC

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### QUESTION 18

What occurs on a Frame Relay network when the CIR is exceeded?

- A. All TCP traffic is marked discard eligible.
- B. All UDP traffic is marked discard eligible and a BECN is sent.
- C. All TCP traffic is marked discard eligible and a BECN is sent.
- D. All traffic exceeding the CIR is marked discard eligible.

Correct Answer: D

Committed information rate (CIR): The minimum guaranteed data transfer rate agreed to by the Frame Relay switch. Frames that are sent in excess of the CIR are marked as discard eligible (DE) which means they can be dropped if the congestion occurs within the Frame Relay network.

Note: In the Frame Relay frame format, there is a bit called Discard eligible (DE) bit that is used to identify frames that are first to be dropped when the CIR is exceeded.

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### QUESTION 19

Which three are the possible trunking modes for a switch port? (Choose three.)

- A. forwarding
- B. desirable
- C. transparent
- D. Auto
- E. on
- F. off

Correct Answer: BDE

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### QUESTION 20

What is known as "one-to-nearest" addressing in IPv6?

- A. global unicast
- B. anycast
- C. multicast
- D. unspecified address

Correct Answer: B

IPv6 Anycast addresses are used for one-to-nearest communication, meaning an Anycast address is used by a device to send data to one specific recipient (interface) that is the closest out of a group of recipients (interfaces).

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### QUESTION 21

Which two of these statements are true of IPv6 address representation? (Choose two.)

- A. There are four types of IPv6 addresses: unicast, multicast, anycast, and broadcast.
- B. A single interface may be assigned multiple IPv6 addresses of any type.
- C. Every IPv6 interface contains at least one loopback address.
- D. The first 64 bits represent the dynamically created interface ID.
- E. Leading zeros in an IPv6 16 bit hexadecimal field are mandatory.

Correct Answer: BC

A single interface may be assigned multiple addresses of any type (unicast, anycast, multicast). Every IPv6-enabled interface must contain at least one loopback and one link-local address. Optionally, every interface can have multiple unique local and global addresses.

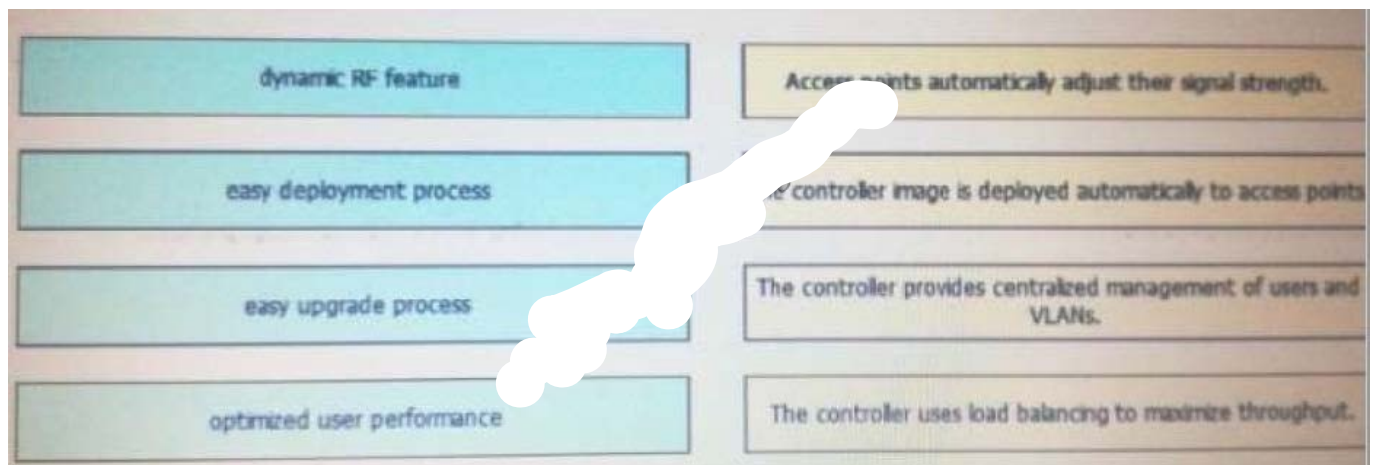
Reference: IPv6 Addressing at a Glance ?Cisco PDF

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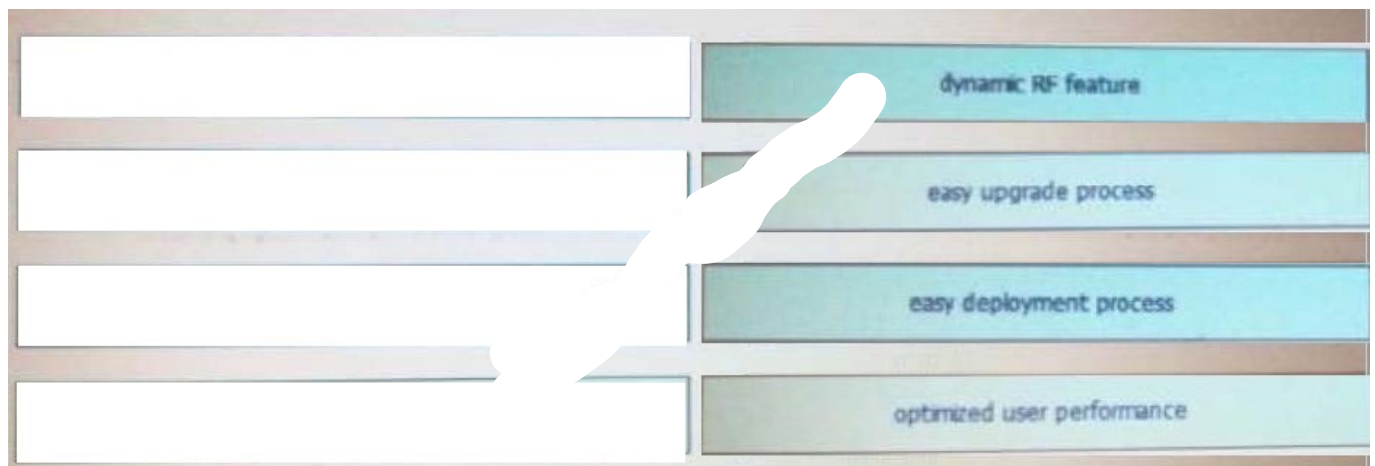
### QUESTION 22

Drag and drop the benefits of a cisco wireless Lan controller from the left onto the correct examples on the right.

Select and Place:



Correct Answer:



### QUESTION 23

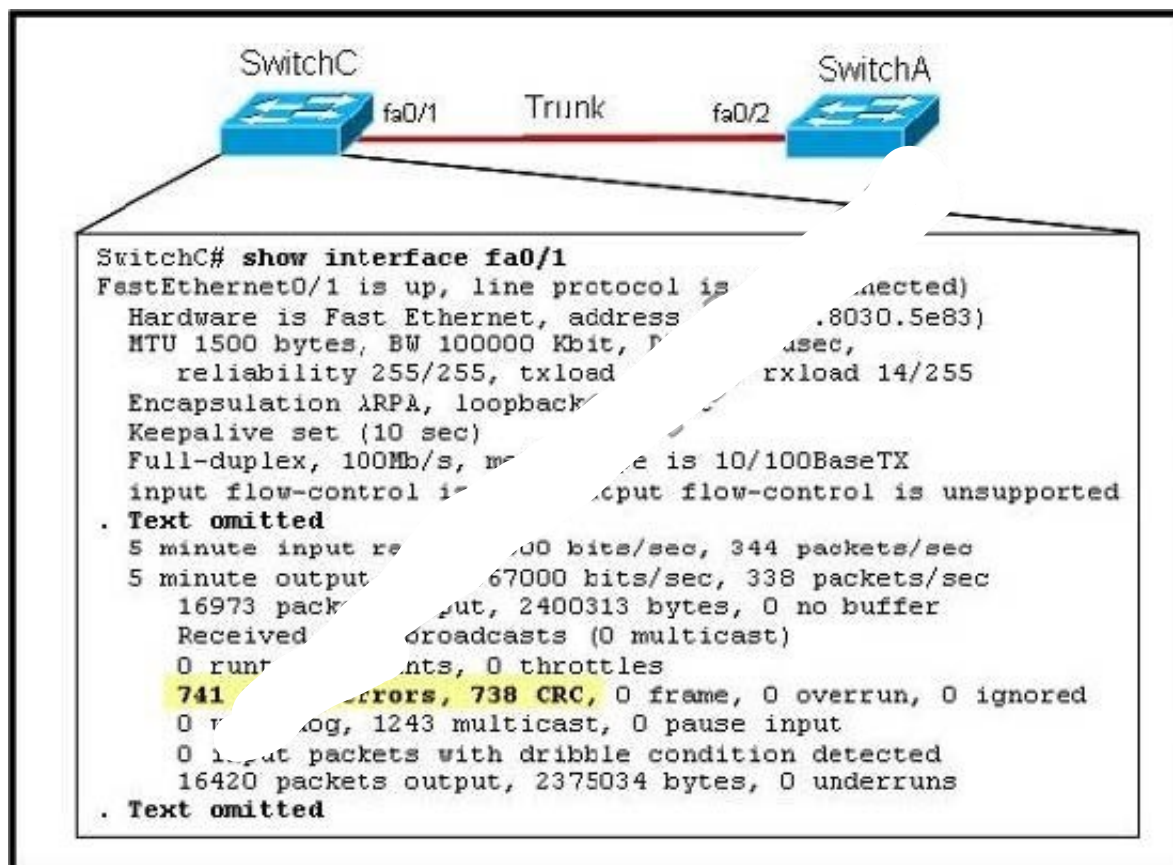
Which protocol is a Cisco proprietary implementation of STP?

- A. CST
- B. RSTP
- C. MSTP
- D. PVST+

Correct Answer: D

### QUESTION 24

Refer to the exhibit.



Given this output for SwitchC, what should the network administrator's next action be?

- A. Check the trunk encapsulation mode for SwitchC's fa0/1 port.
- B. Check the duplex mode for SwitchC's fa0/1 port.
- C. Check the duplex mode for SwitchA's fa0/2 port.
- D. Check the trunk encapsulation mode for SwitchA's fa0/2 port.

Correct Answer: C

Here we can see that this port is configured for full duplex, so the next step would be to check the duplex setting of the port on the other switch. A mismatched trunk encapsulation would not result in input errors and CRC errors.

## QUESTION 25

Which two neighbor types are supported in a bgp environment? (Choose two)

- A. remote
- B. directly attached
- C. external
- D. autonomous

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E. internal

Correct Answer: CE

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#### QUESTION 26

Which two Cisco IOS commands, used in troubleshooting, can enable debug output to a remote location? (Choose two)

- A. no logging console
- B. logging host ip-address
- C. terminal monitor
- D. show logging | redirect flash:output.txt
- E. snmp-server enable traps syslog

Correct Answer: BC

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#### QUESTION 27

If router R1 knows a static route to a destination network and then learn about the same destination network through a dynamic routing protocol, how does R1 respond?

- A. It sends a withdrawal notification to the neighboring router.
- B. It refuses to advertise the dynamic route to other neighbors.
- C. It disables the routing protocol.
- D. It prefers the static route.

Correct Answer: D

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#### QUESTION 28

Select and Place:

Drag each definition on the left to the matching term on the right.

|                   |   |
|-------------------|---|
| Prefix            | separate network operating within one administrative domain |
| Internal BGP      | relationship between peers in different autonomous system   |
| external BGP      | relationship between peers in same autonomous system        |
| Private AS range  | block of IP addresses                                       |
| Public AD range   | value between 64,512 and 65,535                             |
| Autonomous system | value between 1 and 64,511                                  |

Correct Answer:

Drag each definition on the left to the matching term on the right.

|  |                   |
|--|-------------------|
|  | Autonomous system |
|  | external BGP      |
|  | Internal BGP      |
|  | Prefix            |
|  | Private AS range  |
|  | Public AD range   |

---

**QUESTION 29**

What value is primarily used to determine which port becomes the root port on each nonroot switch in a spanning-tree topology?

- A. path cost
- B. lowest port MAC address
- C. VTP revision number
- D. highest port priority number
- E. port priority number and MAC address

Correct Answer: A

The path cost to the root bridge is the most important value to determine which port will become the root port on each non-root switch. In particular, the port with lowest cost to the root bridge will become root port (on non-root switch).

---

**QUESTION 30**

Refer to the exhibit.

```
Router#config t
Router(config)#line vty 0 4
Router(config-line)#password c1sc0
Router(config-line)#no login
```

What is the result of setting the no login command?

- A. Telnet access is denied.
- B. Telnet access requires a new password at the first login.
- C. Telnet access requires a new password.
- D. no password is required for telnet access.

Correct Answer: D

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**QUESTION 31**

Which two functions can be performed by a local DNS server? (Choose two)

- A. transferring spirt horizon traffic between zones
- B. Forwarding name resolution requests to an external DNS server

- 
- C. assigning IP addresses to local clients
  - D. resolving names locally
  - E. copying updated IOS images to Cisco switches

Correct Answer: BD

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### QUESTION 32

Which statement about unique local IPv6 addresses is true?

- A. Summarization is not supported.
- B. They require all prefixes to be unique.
- C. Their global IDs are assigned sequentially.
- D. They are routable to the public Internet.

Correct Answer: B

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### QUESTION 33

Cisco Catalyst switches CAT1 and CAT2 have a connection between them using ports FA0/13. An 802.1Q trunk is configured between the two switches. On CAT1, VLAN 10 is chosen as native, but on CAT2 the native VLAN is not specified.

What will happen in this scenario?

- A. 802.1Q giants frames could saturate the link.
- B. VLAN 10 on CAT1 and VLAN 1 on CAT2 will send untagged frames.
- C. A native VLAN mismatch error message will appear.
- D. VLAN 10 on CAT1 and VLAN 1 on CAT2 will send tagged frames.

Correct Answer: C

A "native VLAN mismatch" error will appear by CDP if there is a native VLAN mismatch on an 802.1Q link. "VLAN mismatch" can cause traffic from one vlan to leak into another vlan.

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### QUESTION 34

Which command can you enter to determine whether serial interface 0/2/0 has been configured using HDLC encapsulation?

- A. router#show platform



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B. router#show interfaces Serial 0/2/0

C. router#show ip interface s0/2/0

D. router#\show ip interface brief

Correct Answer: B

---

### QUESTION 35

Which protocol advertises a virtual IP address to facilitate transparent failover of a Cisco routing device?

A. FHRP

B. DHCP

C. RSMLT

D. ESRP

Correct Answer: A

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### QUESTION 36

On which OSI layer does a VLAN operate?

A. Layer 1

B. Layer 2

C. Layer 3

D. Layer 4

Correct Answer: B

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### QUESTION 37

Which characteristics are representatives of a link-state routing protocol? (Choose three.)

A. provides common view of entire topology

B. exchanges routing tables with neighbors

C. calculates shortest path

D. utilizes event-triggered updates

E. utilizes frequent periodic updates

Correct Answer: ACD

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Each of routers running link-state routing protocol learns paths to all the destinations in its "area" so we can say although it is a bit unclear. Link-state routing protocols generate routing updates only (not the whole routing table) when a change

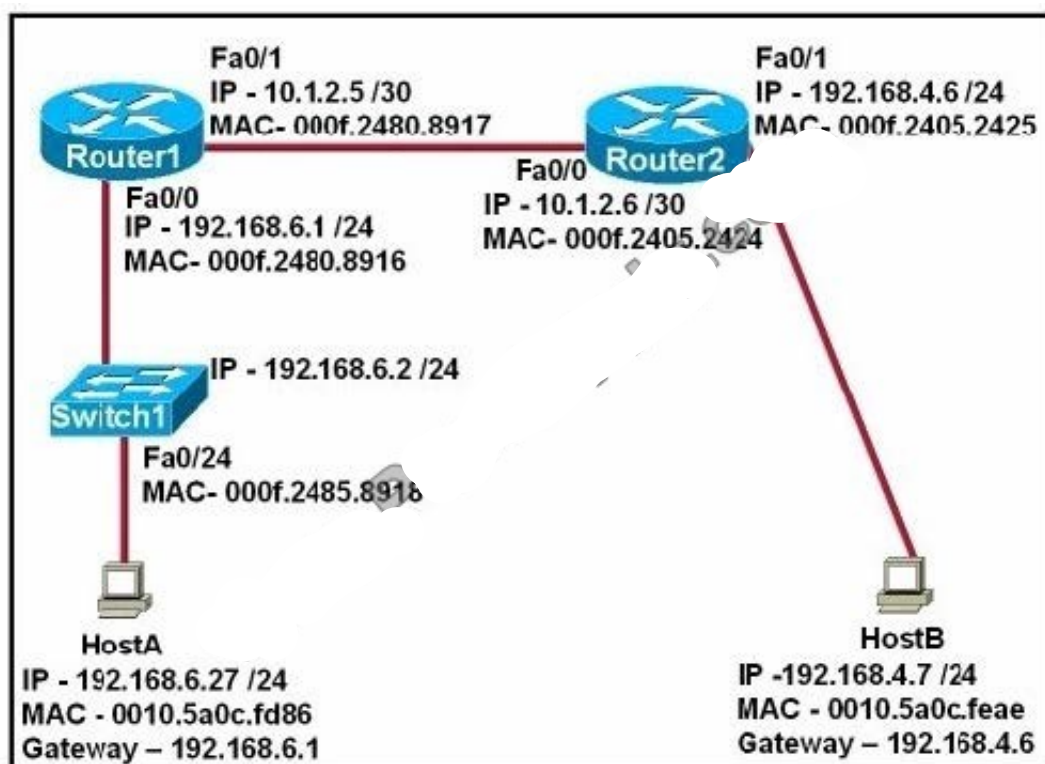
occurs in the network topology so

Link-state routing protocol like OSPF uses Dijkstra algorithm to calculate the shortest path ->.

Unlike Distance vector routing protocol (which utilizes frequent periodic updates), link-state routing protocol utilizes event-triggered updates (only sends update when a change occurs) ->.

### QUESTION 38

Refer to the exhibit.



After HostA pings HostB, which entry will be in the ARP cache of HostA to support this transmission?

- A. 

| Interface Address | Physical Address | Type    |
|-------------------|------------------|---------|
| 192.168.4.7       | 000f.2480.8916   | dynamic |
- B. 

| Interface Address | Physical Address | Type    |
|-------------------|------------------|---------|
| 192.168.4.7       | 0010.5a0c.fea    | dynamic |
- C. 

| Interface Address | Physical Address | Type    |
|-------------------|------------------|---------|
| 192.168.6.1       | 0010.5a0c.fea    | dynamic |
- D. 

| Interface Address | Physical Address | Type    |
|-------------------|------------------|---------|
| 192.168.6.1       | 000f.2480.8916   | dynamic |
- E. 

| Interface Address | Physical Address | Type    |
|-------------------|------------------|---------|
| 192.168.6.2       | 0010.5a0c.fea    | dynamic |
- F. 

| Interface Address | Physical Address | Type    |
|-------------------|------------------|---------|
| 192.168.6.2       | 000f.2485.8918   | dynamic |

- A. Exhibit A
- B. Exhibit B
- C. Exhibit C
- D. Exhibit D
- E. Exhibit E
- F. Exhibit F

Correct Answer: A

Host A knows host B is in another network so it will send the pings to its default gateway 192.168.6.1. Host A sends a broadcast frame asking the MAC address of 192.168.6.1. This information (IP and MAC address of the default gateway) is saved in its ARP cache for later use.

### QUESTION 39

A security administrator wants to profile endpoints and gain visibility into attempted authentications. Which 802.1x mode allows these actions?

- A. Monitor mode
- B. High-Security mode
- C. Low-impact mode
- D. Closed mode

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Correct Answer: A

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#### QUESTION 40

The output of the show frame-relay pvc command shows "PVC STATUS = INACTIVE". What does this mean?

- A. The PVC is configured correctly and is operating normally, but no data packets have been detected for more than five minutes.
- B. The PVC is configured correctly, is operating normally, and is no longer actively seeking the address of the remote router.
- C. The PVC is configured correctly, is operating normally, and is waiting for interesting traffic to trigger a call to the remote router.
- D. The PVC is configured correctly on the local switch, but there is a problem on the remote end of the PVC.
- E. The PVC is not configured on the local switch.

Correct Answer: D

The PVC STATUS displays the status of the PVC. The DCE device creates and sends the report to the DTE devices. There are 4 statuses:

+

ACTIVE: the PVC is operational and can transmit data + INACTIVE: the connection from the local router to the switch is working, but the connection to the remote router is not available + DELETED: the PVC is not present and no LMI information is being received from the Frame Relay switch

+

STATIC: the Local Management Interface (LMI) mechanism on the interface is disabled (by using the "no keepalive" command). This status is rarely seen so it is ignored in some books.

