



Cisco

Exam Questions 200-301

Cisco Certified Network Associate

NEW QUESTION 1

- (Topic 3)

Refer to the exhibit.

```
Switch2# show lldp
Global LLDP Information
  Status: ACTIVE
  LLDP advertisements are sent every 30 seconds
  LLDP hold time advertised is 120 seconds
  LLDP interface reinitialization delay is 2 seconds
```

A network engineer must update the configuration on Switch2 so that it sends LLDP packets every minute and the information sent via LLDP is refreshed every 3 minutes. Which configuration must the engineer apply?

A)

```
Switch2(config)#lldp timer 60
Switch2(config)#lldp holdtime 180
```

B)

```
Switch2(config)#lldp timer 60
Switch2(config)#lldp tlv-select 180
```

C)

```
Switch2(config)#lldp timer 1
Switch2(config)#lldp holdtime 3
```

D)

```
Switch2(config)#lldp timer 1
Switch2(config)#lldp tlv-select 3
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 2

- (Topic 3)

What is a function of Opportunistic Wireless Encryption in an environment?

- A. offer compression
- B. increase security by using a WEP connection
- C. provide authentication
- D. protect traffic on open networks

Answer: D

NEW QUESTION 3

- (Topic 3)

R1 as an NTP server must have:

- NTP authentication enabled
- NTP packets sourced from Interface loopback 0
- NTP stratum 2
- NTP packets only permitted to client IP 209.165.200.225

How should R1 be configured?

A)

```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp source Loopback0
nntp access-group server-only 10
ntp master 2
!
access-list 10 permit 209.165.200.225
```

B)

```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp source Loopback0
ntp access-group server-only 10
ntp stratum 2
!
access-list 10 permit udp host 209.165.200.225 any eq 123
```

C)

```
ntp authenticate
ntp authentication-key 2 sha1 CISCO123
ntp source Loopback0
ntp access-group server-only 10
ntp master 2
!
access-list 10 permit udp host 209.165.200.225 any eq 123
```

D)

```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp interface Loopback0
ntp access-group server-only 10
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 4

- (Topic 3)

Which type of network attack overwhelms the target server by sending multiple packets to a port until the half-open TCP resources of the target are exhausted?

- A. SYIM flood
- B. reflection
- C. teardrop
- D. amplification

Answer: A

NEW QUESTION 5

- (Topic 3)

Which protocol uses the SSL?

- A. HTTP
- B. SSH
- C. HTTPS
- D. Telnet

Answer: C

NEW QUESTION 6

- (Topic 3)

Which value is the unique identifier that an access point uses to establish and maintain wireless connectivity to wireless network devices?

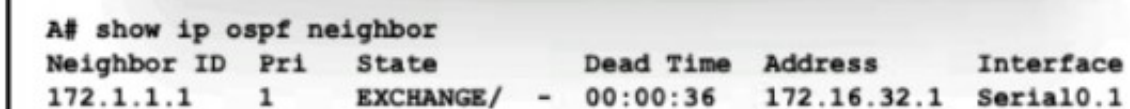
- A. VLANID
- B. SSID
- C. RFID
- D. WLANID

Answer: B

NEW QUESTION 7

- (Topic 3)

Refer to the exhibit.



```
A# show ip ospf neighbor
Neighbor ID Pri State Dead Time Address Interface
172.1.1.1 1 EXCHANGE/ - 00:00:36 172.16.32.1 Serial0.1
```

An engineer assumes a configuration task from a peer Router A must establish an OSPF neighbor relationship with neighbor 172.1.1.1. The output displays the status of the adjacency after 2 hours. What is the next step in the configuration process for the routers to establish an adjacency?

- A. Configure router A to use the same MTU size as router B.
- B. Set the router B OSPF ID to a nonhost address.
- C. Configure a point-to-point link between router A and router B.
- D. Set the router B OSPF ID to the same value as its IP address

Answer: B

NEW QUESTION 8

- (Topic 3)
Which protocol is used for secure remote CLI access?

- A. HTTPS
- B. HTTP
- C. Telnet
- D. SSH

Answer: D

NEW QUESTION 9

DRAG DROP - (Topic 3)
Drag and drop the characteristics of networking from the left onto the networking types on the right.

focused on network

focused on devices

user input is a configuration

user input is a policy

uses allow list security model

uses block list security model

Controller-Based Networking

Traditional Networking

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

focused on network

focused on devices

user input is a configuration

user input is a policy

uses allow list security model

uses block list security model

Controller-Based Networking

focused on network

uses allow list security model

user input is a policy

Traditional Networking

focused on devices

uses block list security model

user input is a configuration

NEW QUESTION 10

DRAG DROP - (Topic 3)
Drag and drop the descriptions of AAA services from the left onto the corresponding services on the right.

allows the user to change to enable mode

limits the user's access permissions

logs session statistics

records user commands

secures access to routers

validates user credentials

Accounting

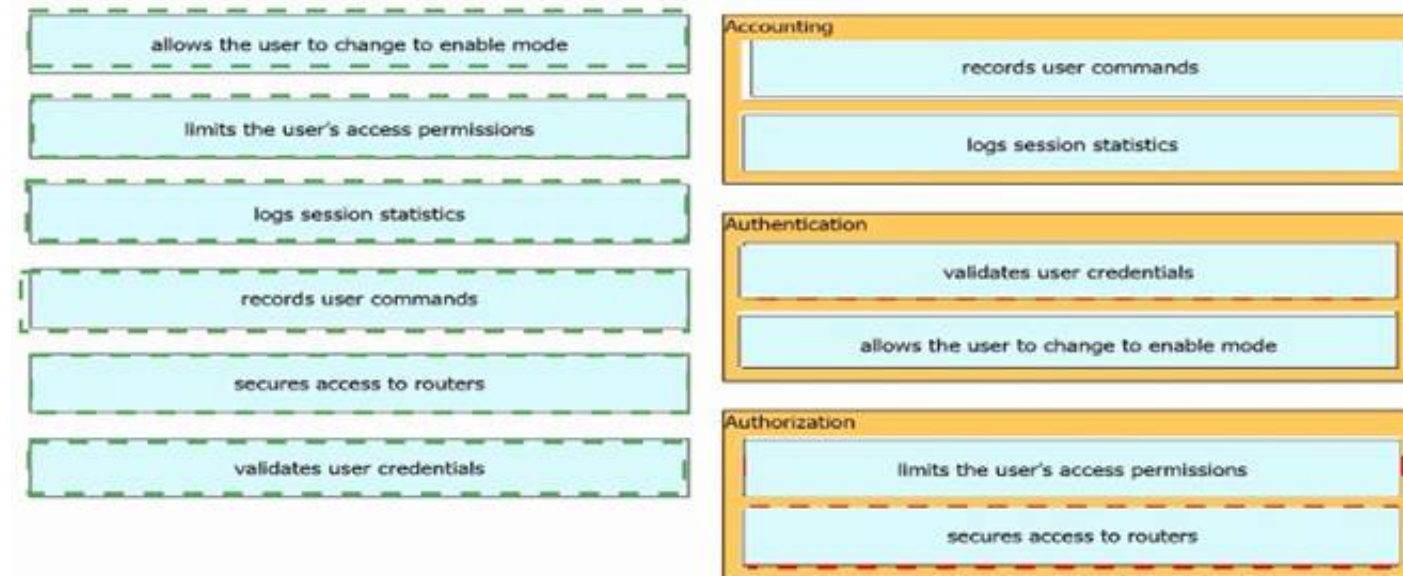
Authentication

Authorization

- A. Mastered
- B. Not Mastered

Answer: A

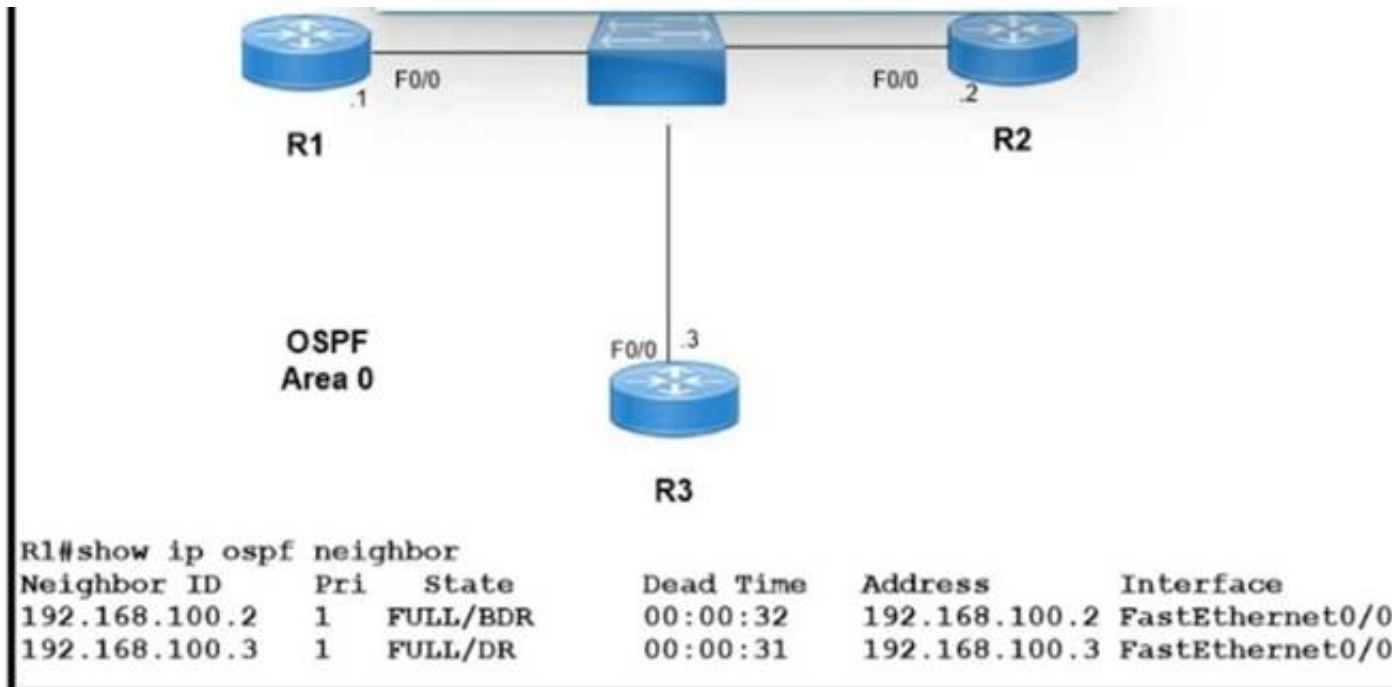
Explanation:



NEW QUESTION 10

- (Topic 3)

Refer to the exhibit.



Which two configurations must the engineer apply on this network so that R1 becomes the DR? (Choose two.)

A)

```
R1(config)#router ospf 1
R1(config-router)#router-id 192.168.100.1
```

B)

```
R1(config)#interface fastethernet 0/0
R1(config-if)#ip ospf priority 200
```

C)

```
R3(config)#interface fastethernet 0/0
R3(config-if)#ip ospf priority 0
```

D)

```
R1(config)#interface fastethernet 0/0
R1(config-if)#ip ospf priority 0
```

E)

```
R3(config)#interface fastethernet 0/0
R3(config-if)#ip ospf priority 200
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

Answer: BC

NEW QUESTION 13

- (Topic 3)

Refer to the exhibit.

```
Hardware is ISR4331-3xlGE, address is 5486.bc25.1f70 (bia 5486.bc25.1f70)
Description: << WAN Link >>
Internet address is 192.0.2.2/30
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Full Duplex, 1000Mbps, link type is auto, media type is RJ45
output flow-control is off, input flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:00, output 00:00:11, output hang never
Last clearing of "show interface" counters never
Input queue: 0/375/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 7000 bits/sec, 4 packets/sec
5 minute output rate 4000 bits/sec, 4 packets/sec
  22579370 packets input, 8825545968 bytes, 0 no buffer
    Received 67 broadcasts (0 IP multicasts)
      0 runts, 0 giants, 0 throttles
    3612699 input errors, 3612699 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 10747057 multicast, 0 pause input
    12072167 packets output, 1697953637 bytes, 0 underruns
      0 output errors, 0 collisions, 1 interface resets
        6 unknown protocol drops
        0 babbles, 0 late collision, 0 deferred
        5 lost carrier, 0 no carrier, 0 pause output
        0 output buffer failures, 0 output buffers swapped out
```

What is a reason for poor performance on the network interface?

- A. The interface is receiving excessive broadcast traffic.
- B. The cable connection between the two devices is faulty.
- C. The interface is operating at a different speed than the connected device.
- D. The bandwidth setting of the interface is misconfigured

Answer: A

NEW QUESTION 18

- (Topic 3)

Refer to the exhibit.

RIP	10.1.1.16/28[120/5]	via	F0/0
OSPF	10.1.1.0/24[110/30]	via	F0/1
OSPF	10.1.1.0/24[110/40]	via	F0/2
EIGRP	10.1.0.0/26[90/20]	via	F0/3
EIGRP	10.0.0.0/8 [90/133]	via	F0/4

Packets received by the router from BGP enter via a serial interface at 209 165 201 1 Each route is present within the routing table Which interface is used to forward traffic with a destination IP of 10.1.1.19?

- A. F0/4
- B. F0/0
- C. F0/1
- D. F0/3

Answer: B

NEW QUESTION 23

- (Topic 3)

Which two network actions occur within the data plane? (Choose two.)

- A. Add or remove an 802.1Q trunking header.
- B. Make a configuration change from an incoming NETCONF RPC.
- C. Run routing protocols.
- D. Match the destination MAC address to the MAC address table.
- E. Reply to an incoming ICMP echo request.

Answer: BD

NEW QUESTION 26

- (Topic 3)

What is an expected outcome when network management automation is deployed?

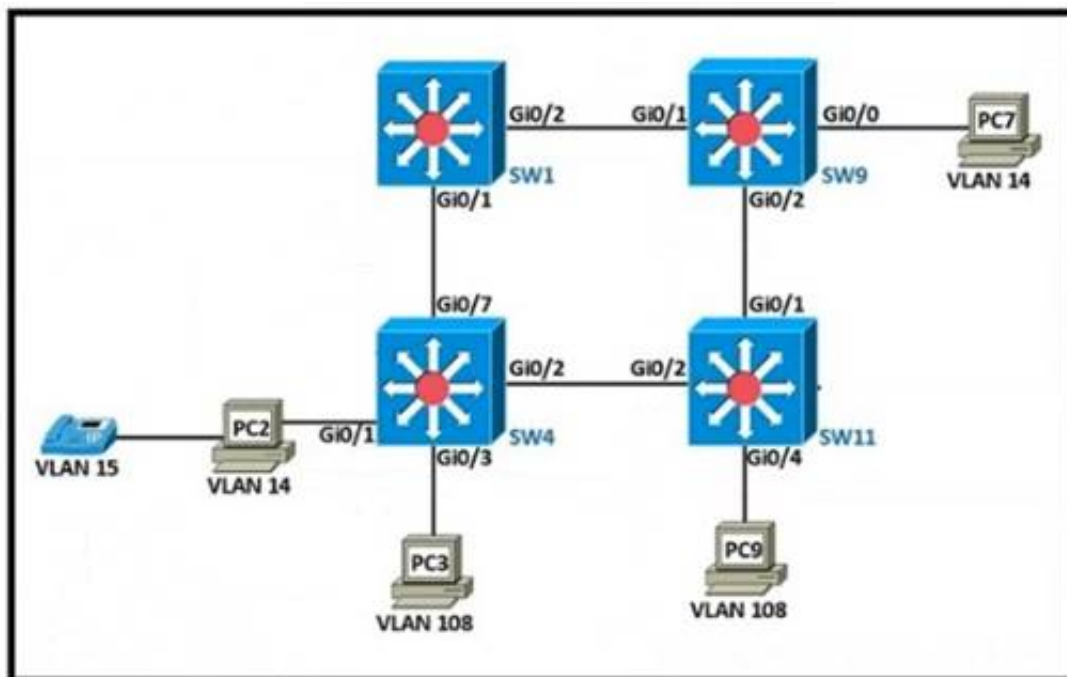
- A. A distributed management plane must be used.
- B. Software upgrades are performed from a central controller
- C. Complexity increases when new device configurations are added
- D. Custom applications are needed to configure network devices

Answer: B

NEW QUESTION 31

- (Topic 3)

Refer to the exhibit.



The following must be considered:

- SW1 is fully configured for all traffic
- The SW4 and SW9 links to SW1 have been configured
- The SW4 interface Gi0/1 and Gi0/0 on SW9 have been configured
- The remaining switches have had all VLANs added to their VLAN database

Which configuration establishes a successful ping from PC2 to PC7 without interruption to traffic flow between other PCs?

A)

```
SW4#
interface Gi0/2
switchport mode trunk
switchport trunk allowed vlan 14

SW11#
interface Gi0/1
switchport mode trunk
switchport trunk allowed vlan 14

SW9#
interface Gi0/2
switchport mode trunk
switchport trunk allowed vlan 108
```

B)

```
SW4#
interface Gi0/2
switchport mode trunk
switchport trunk allowed vlan 14

SW11#
interface Gi0/1
switchport mode trunk
switchport trunk allowed vlan 14

SW9#
interface Gi0/2
switchport mode trunk
switchport trunk allowed vlan 108
```

C)

```
SW4#  
interface Gi0/2  
switchport mode trunk  
switchport trunk allowed vlan 14,108  
  
SW11#  
interface Gi0/2  
switchport mode trunk  
switchport trunk allowed vlan 14,108  
!  
interface Gi0/1  
switchport mode trunk  
switchport trunk allowed vlan 14,108  
  
SW9#  
interface Gi0/2  
switchport mode trunk  
switchport trunk allowed vlan 14
```

D)

```
SW4#  
interface Gi0/2  
switchport mode access  
switchport access vlan 14  
  
SW11#  
interface Gi0/2  
switchport mode access  
switchport access vlan 14  
!  
interface Gi0/0  
switchport mode access  
switchport access vlan 14  
!  
interface Gi0/1  
switchport mode trunk  
  
SW9#  
interface Gi0/2  
switchport mode access  
switchport access vlan 14
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 36

- (Topic 3)

What is a function of a Next-Generation IPS?

- A. makes forwarding decisions based on learned MAC addresses
- B. serves as a controller within a controller-based network
- C. integrates with a RADIUS server to enforce Layer 2 device authentication rules
- D. correlates user activity with network events

Answer: D

NEW QUESTION 41

DRAG DROP - (Topic 3)

Drag and drop the facts about wireless architectures from the left onto the types of access point on the right. Not all options are used.

supports automatic deployment

managed from a web-based dashboard

accessible for management via Telnet, SSH, or a web GUI

configured and managed by a WLC

requires a management IP address

Autonomous Access Point

Cloud-Based Access Point

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

supports automatic deployment

managed from a web-based dashboard

accessible for management via Telnet, SSH, or a web GUI

configured and managed by a WLC

requires a management IP address

Autonomous Access Point

accessible for management via Telnet, SSH, or a web GUI

configured and managed by a WLC

Cloud-Based Access Point

requires a management IP address

supports automatic deployment

NEW QUESTION 43

DRAG DROP - (Topic 3)

An engineer is tasked to configure a switch with port security to ensure devices that forward unicasts multicasts and broadcasts are unable to flood the port The port must be configured to permit only two random MAC addresses at a time Drag and drop the required configuration commands from the left onto the sequence on the right Not all commands are used.

switchport mode access

switchport port-security

switchport port-security mac-address 0060.3EDD.77AB

switchport port-security mac-address 00D0.D3ED.622A

switchport port-security mac-address sticky

switchport port-security maximum 2

switchport port-security violation shutdown

1

2

3

4

- A. Mastered
- B. Not Mastered

Answer: A

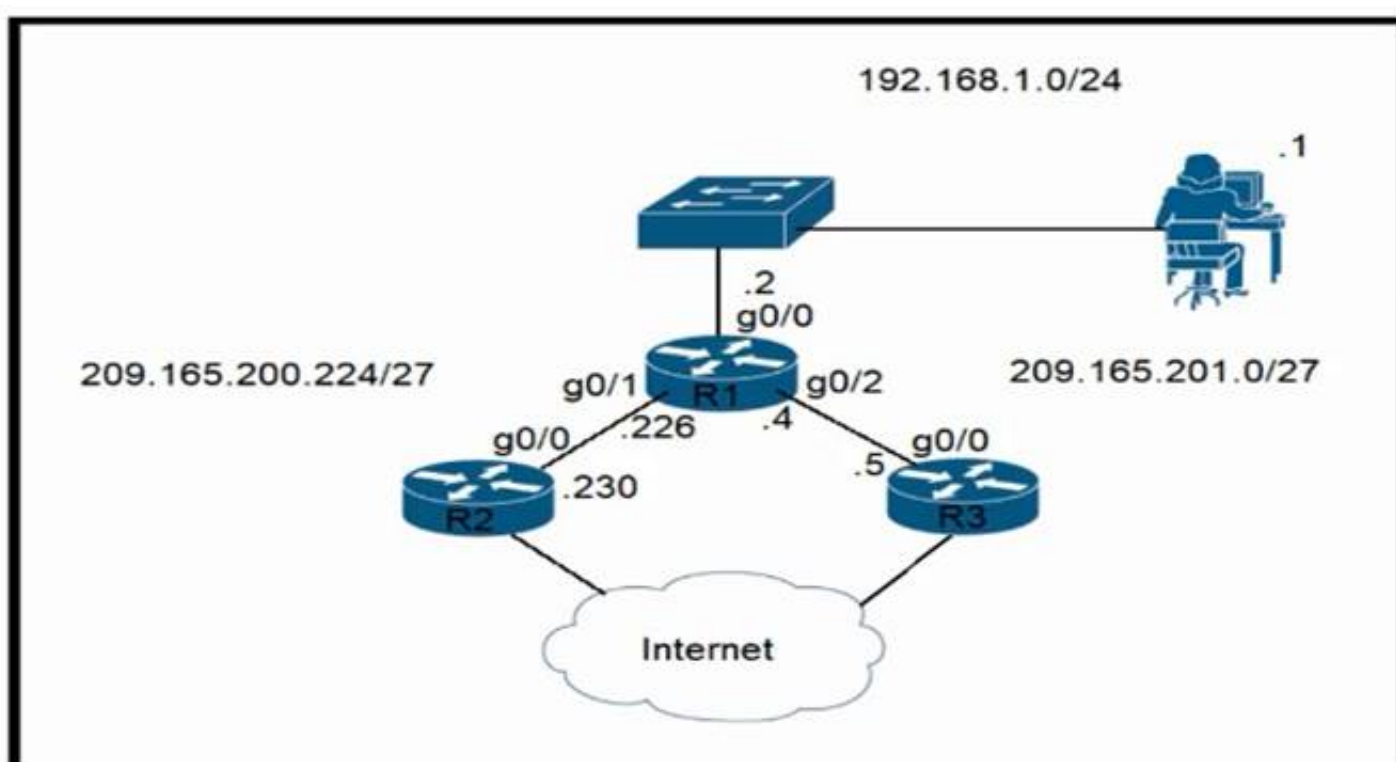
Explanation:

switchport mode access	switchport port-security
switchport port-security	switchport port-security mac-address sticky
switchport port-security mac-address 0060.3EDD.77AB	switchport port-security maximum 2
switchport port-security mac-address 00D0.D3ED.622A	switchport port-security violation shutdown
switchport port-security mac-address sticky	
switchport port-security maximum 2	
switchport port-security violation shutdown	

NEW QUESTION 46

- (Topic 3)

Refer to the exhibit.



Router R1 currently is configured to use R3 as the primary route to the Internet, and the route uses the default administrative distance settings. A network engineer must configure R1 so that it uses R2 as a backup, but only if R3 goes down. Which command must the engineer configure on R1 so that it correctly uses R2 as a backup route, without changing the administrative distance configuration on the link to R3?

- A. ip route 0.0.0.0 0.0.0.0 g0/1 1
- B. ip route 0.0.0.0 0.0.0.0 209.165.201.5 10
- C. ip route 0.0.0.0 0.0.0.0 209.165.200.226 1
- D. ip route 0.0.0.0 0.0.0.0 g0/1 6

Answer: C

NEW QUESTION 47

FILL IN THE BLANK - (Topic 3)

Drag and drop the functions of SNMP fault-management from the left onto the definitions on the right.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated

NEW QUESTION 49

- (Topic 2)

The service password-encryption command is entered on a router. What is the effect of this configuration?

- A. restricts unauthorized users from viewing clear-text passwords in the running configuration
- B. encrypts the password exchange when a VPN tunnel is established
- C. prevents network administrators from configuring clear-text passwords
- D. protects the VLAN database from unauthorized PC connections on the switch

Answer: A

NEW QUESTION 50

- (Topic 2)

Which type of IPv6 address is publicly routable in the same way as IPv4 public address?

- A. global unicast
- B. link-local
- C. unique local
- D. multicast

Answer: A

NEW QUESTION 53

- (Topic 2)

What are two differences between optical-fiber cabling and copper cabling? (Choose two)

- A. Light is transmitted through the core of the fiber
- B. A BNC connector is used for fiber connections
- C. The glass core component is encased in a cladding
- D. Fiber connects to physical interfaces using Rj-45 connections
- E. The data can pass through the cladding

Answer: AC

NEW QUESTION 56

- (Topic 2)

What is a capability of FTP in network management operations?

- A. encrypts data before sending between data resources
- B. devices are directly connected and use UDP to pass file information
- C. uses separate control and data connections to move files between server and client
- D. offers proprietary support at the session layer when transferring data

Answer: C

Explanation:

The File Transfer Protocol (FTP) is a standard communication protocol used for the transfer of computer files from a server to a client on a computer network. FTP is built on a client–server model architecture using separate control and data connections between the client and the server.

NEW QUESTION 57

- (Topic 2)

Using direct sequence spread spectrum, which three 2.4-GHz channels are used to limit collisions?

- A. 1,6,11
- B. 1,5,10
- C. 1,2,3
- D. 5,6,7

Answer: A

NEW QUESTION 60

- (Topic 2)

An engineer observes high usage on the 2.4GHz channels and lower usage on the 5GHz channels. What must be configured to allow clients to preferentially use 5GHz access points?

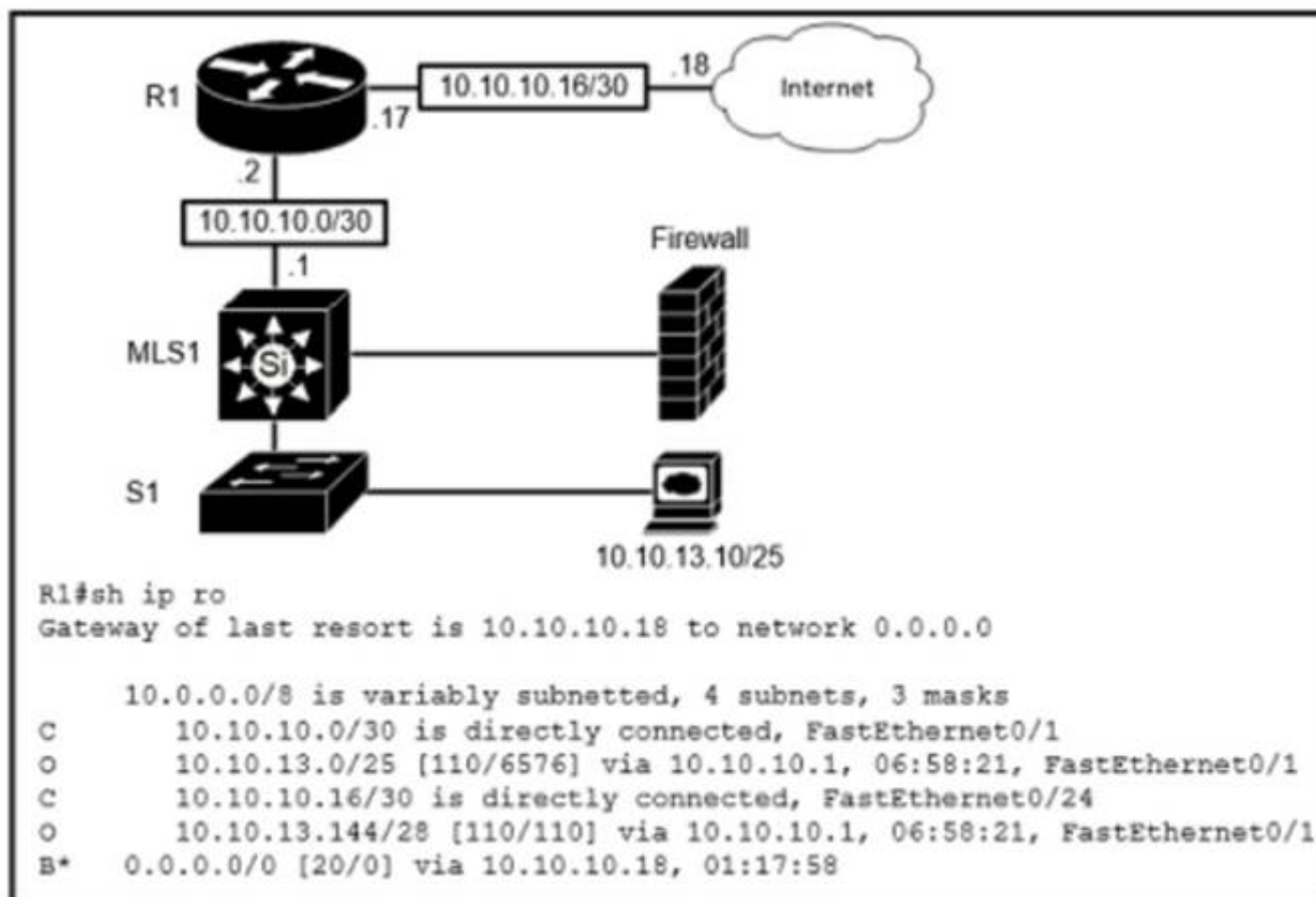
- A. Re- Anchor Roamed Clients
- B. 11ac MU-MIMO
- C. OEAP Split Tunnel
- D. Client Band Select

Answer: D

NEW QUESTION 62

- (Topic 2)

Refer to the exhibit.



Which route type is configured to reach the internet?

- A. host route
- B. default route
- C. floating static route
- D. network route

Answer: B

NEW QUESTION 66

- (Topic 2)

Which two protocols must be disabled to increase security for management connections to a Wireless LAN Controller? (Choose two)

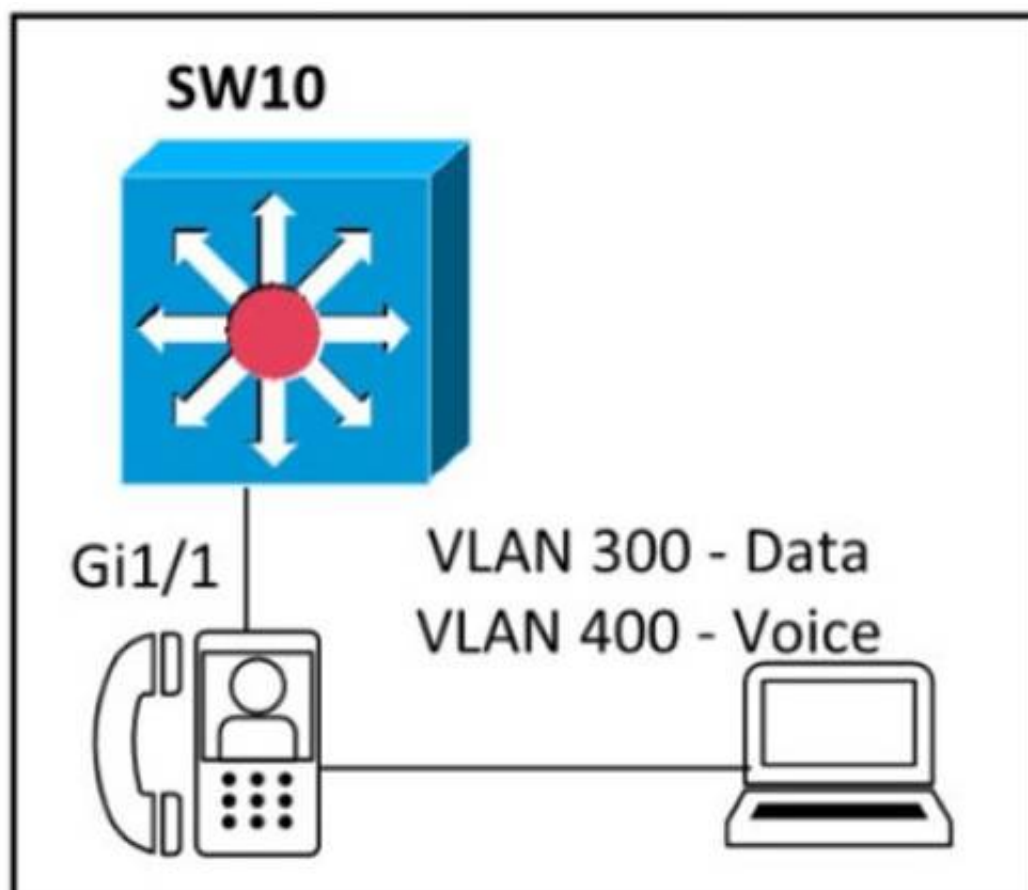
- A. Telnet
- B. SSH
- C. HTTP
- D. HTTPS
- E. TFTP

Answer: AC

NEW QUESTION 67

- (Topic 2)

Refer to the exhibit.



An engineer must configure GigabitEthernet1/1 to accommodate voice and data traffic Which configuration accomplishes this task?

```
interface gigabitethernet1/1
switchport mode access
switchport access vlan 300
switchport voice vlan 400
```

```
interface gigabitethernet1/1
switchport mode trunk
switchport trunk vlan 300
switchport voice vlan 400
```

```
interface gigabitethernet1/1
switchport mode trunk
switchport trunk vlan 300
switchport trunk vlan 400
```

```
interface gigabitethernet1/1
switchport mode access
switchport voice vlan 300
switchport access vlan 400
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 71

- (Topic 2)

What is a similarity between 1000BASE-LX and 1000BASE-T standards?

- A. Both use the same data-link header and trailer formats
- B. Both cable types support LP connectors
- C. Both cable types support Rj-45 connectors
- D. Both support up to 550 meters between nodes

Answer: A

Explanation:

“In computer networking, Gigabit Ethernet (GbE or 1 GigE) is the term applied to transmitting Ethernet frames at a rate of a gigabit per second.” Both standards use Ethernet framing (same headers and trailers)

NEW QUESTION 74

DRAG DROP - (Topic 2)

Refer to the exhibit.

```
C:\>ipconfig/all

Windows IP Configuration

Host Name . . . . . : Inspiron15
Primary Dns Suffix . . . . . :
Node Type . . . . . : Mixed
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Wireless LAN adapter Local Area Connection* 12:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
Physical Address. . . . . : 1A-76-3F-7C-57-DF
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . :
Description . . . . . : Dell Wireless 1703 802.11b/g/n (2.4GHz)
Physical Address. . . . . : B8-76-3F-7C-57-DF
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::e09f:9839:6e86:f755%12(Preferred)
. . . . . : 192.168.1.20(Preferred)
. . . . . : 255.255.255.0
. . . . . : 192.168.1.1
DHCPv6 IAID . . . . . : 263747135
DHCPv6 Client DUID. . . . . : 00-01-00-01-18-E6-32-43-B8-76-3F-7C-57-DF
. . . . . : 192.168.1.15
. . . . . : 192.168.1.16
NetBIOS over Tcpip. . . . . : Enabled
```

An engineer is tasked with verifying network configuration parameters on a client workstation to report back to the team lead. Drag and drop the node identifiers from the left onto the network parameters on the right.

192.168.1.1	broadcast address
192.168.1.20	default gateway
192.168.1.254	host IP address
192.168.1.255	last assignable IP address in the subnet
B8-76-3F-7C-57-DF	MAC address

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

192.168.1.1	broadcast address
192.168.1.20	default gateway
192.168.1.254	host IP address
192.168.1.255	last assignable IP address in the subnet
B8-76-3F-7C-57-DF	MAC address

NEW QUESTION 79

- (Topic 2)

A packet is destined for 10.10.1.22. Which static route does the router choose to forward the packet?

- A. ip route 10.10.1.0 255.255.255.240 10.10.255.1
- B. ip route 10.10.1.16 255.255.255.252 10.10.255.1
- C. ip route 10.10.1.20 255.255.255.252 10.10.255.1
- D. ip route 10.10.1.20 255.255.255.254 10.10.255.1

Answer: C

NEW QUESTION 82

DRAG DROP - (Topic 2)

Drag and drop the application protocols from the left onto the transport protocols that it uses on the right

DHCP

FTP

SMTP

SSH

SNMP

TFTP

TCP

UDP

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

DHCP

FTP

SMTP

SSH

SNMP

TFTP

TCP

FTP

SMTP

SSH

UDP

DHCP

SNMP

TFTP

NEW QUESTION 86

- (Topic 2)

Which communication interaction takes place when a southbound API Is used?

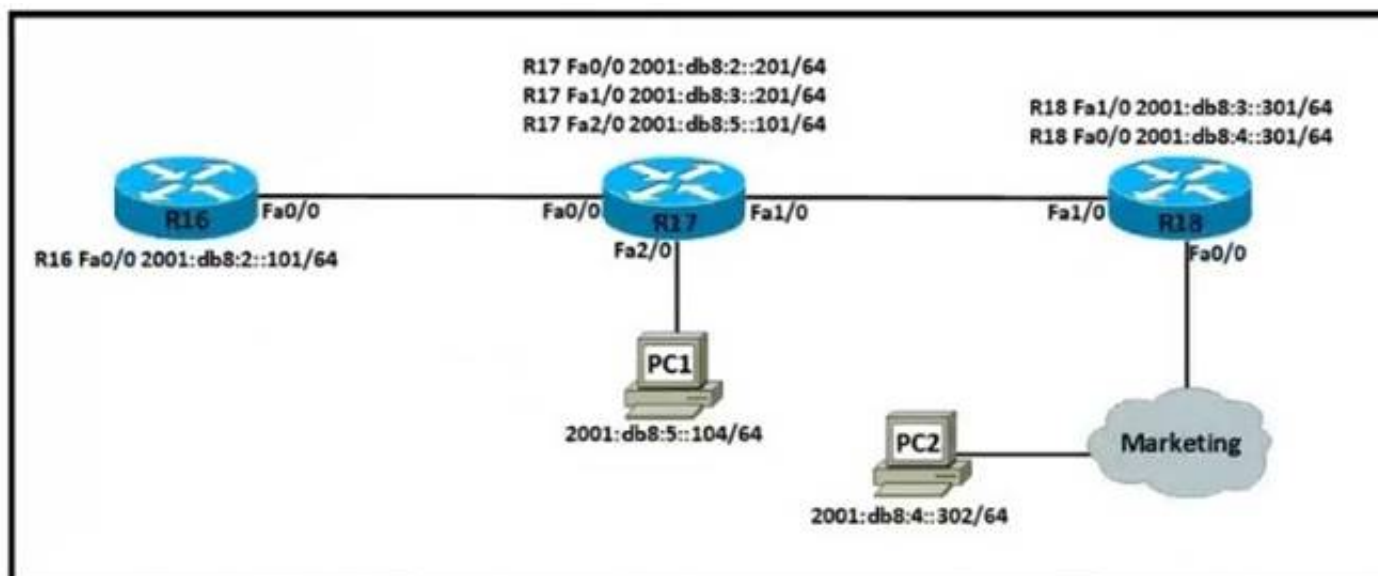
- A. between the SDN controller and PCs on the network
- B. between the SON controller and switches and routers on the network
- C. between the SON controller and services and applications on the network
- D. between network applications and switches and routers on the network

Answer: B

NEW QUESTION 87

- (Topic 2)

Refer to the exhibit.



Which IPv6 configuration is required for R17 to successfully ping the WAN interface on R18?

A)

```
R17#
!
no ip domain lookup
ip cef
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:5::101
```

B)

```
R17#
!
no ip domain lookup
ip cef
ipv6 unicast-routing
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:3::301
```

C)

☐ R17#
!
no ip domain lookup
ip cef
ipv6 cef
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:4::302

D)

☐ R17#
!
no ip domain lookup
ip cef
ipv6 unicast-routing
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:2::201

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

Explanation:

ipv6 unicast-routing statement included (IPv6 is enabled on the router). Compared to the exhibit, Fa0/0 and Fa0/1 have correct configurations. The route to subnet 2001:db8:4::/64 points to R18's Fa1/0 (correct next-hop).

NEW QUESTION 91

- (Topic 2)

A user configured OSPF in a single area between two routers. A serial interface connecting R1 and R2 is running encapsulation PPP. By default, which OSPF network type is seen on this interface when the user types `show ip ospf interface` on R1 or R2?

- A. port-to-multipoint
- B. broadcast
- C. point-to-point
- D. nonbroadcast

Answer: C

Explanation:

The default OSPF network type for HDLC and PPP on Serial link is point-to-point (while the default OSPF network type for Ethernet link is Broadcast).

NEW QUESTION 95

- (Topic 2)

An engineer must configure an OSPF neighbor relationship between router R1 and R3. The authentication configuration has been configured and the connecting interfaces are in the same 192.168.1.0/30 subnet. What are the next two steps to complete the configuration? (Choose two.)

- A. configure the hello and dead timers to match on both sides
- B. configure the same process ID for the router OSPF process
- C. configure the same router ID on both routing processes
- D. Configure the interfaces as OSPF active on both sides.
- E. configure both interfaces with the same area ID

Answer: AE

NEW QUESTION 96

- (Topic 2)

Refer to the exhibit.

```
Router1#show ip route
Gateway of last resort is not set
 209.165.200.0/27 is subnetted, 1 subnets
B    209.165.200.224 [20/0] via 10.10.12.2, 00:09:57
 10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
C    10.10.10.0/28 is directly connected, GigabitEthernet0/0
C    10.10.11.0/30 is directly connected, FastEthernet2/0
O    10.10.13.0/24 [110/2] via 10.10.10.1, 00:08:34, GigabitEthernet0/0
C    10.10.12.0/30 is directly connected, GigabitEthernet0/1
```

Keystream Times!
<https://keystream>

Which action is taken by the router when a packet is sourced from 10.10.10.2 and destined for 10.10.10.16?

- A. It uses a route that is similar to the destination address
- B. It discards the packets.
- C. It floods packets to all learned next hops.
- D. It Queues the packets waiting for the route to be learned.

Answer: A

NEW QUESTION 97

- (Topic 2)

Refer to the exhibit.

```
SiteA#show interface TenGigabitEthernet0/1/0
TenGigabitEthernet0/1/0 is up, line protocol is up
  Hardware is BUILT-IN-EPA-8x10G, address is 780c.f02a.db91 (bia 780a.f02b.db91)
  Description: Connection to SiteB
  Internet address is 10.10.10.1/30
  MTU 8146 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
    reliability 166/255, txload 1/255, rxload 1/255
  Full Duplex, 10000Mbps, link type is force-up, media type is SFP-LR
  5 minute input rate 264797000 bits/sec, 26672 packets/sec
  5 minute output rate 122464000 bits/sec, 15724 packets/sec

SiteB#show interface TenGigabitEthernet0/1/0
TenGigabitEthernet0/1/0 is up, line protocol is up
  Hardware is BUILT-IN-EPA-8x10G, address is 780c.f02c.db26 (bia 780c.f02c.db26)
  Description: Connection to SiteA
  Internet address is 10.10.10.2/30
  MTU 8146 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Full Duplex, 10000Mbps, link type is force-up, media type is SFP-LR
  5 minute input rate 122464000 bits/sec, 15724 packets/sec
  5 minute output rate 264797000 bits/sec, 26672 packets/sec
```

Shortly after SiteA was connected to SiteB over a new single-mode fiber path users at SiteA report intermittent connectivity issues with applications hosted at SiteB. What is the cause of the intermittent connectivity issue?

- A. Interface errors are incrementing
- B. An incorrect SFP media type was used at SiteA
- C. High usage is causing high latency
- D. The sites were connected with the wrong cable type

Answer: A

NEW QUESTION 102

- (Topic 2)

When OSPF learns multiple paths to a network, how does it select a route?

- A. It multiple the active K value by 256 to calculate the route with the lowest metric.
- B. For each existing interface, it adds the metric from the source router to the destination to calculate the route with the lowest bandwidth.
- C. It divides a reference bandwidth of 100 Mbps by the actual bandwidth of the existing interface to calculate the router with the lowest cost.
- D. It count the number of hops between the source router and the destination to determine the router with the lowest metric

Answer: C

NEW QUESTION 103

- (Topic 2)

Which protocol requires authentication to transfer a backup configuration file from a router to a remote server?

- A. DTP
- B. FTP
- C. SMTP
- D. TFTP

Answer: B

NEW QUESTION 104

- (Topic 2)

An engineer must establish a trunk link between two switches. The neighboring switch is set to trunk or desirable mode. What action should be taken?

- A. configure switchport nonegotiate
- B. configure switchport mode dynamic desirable
- C. configure switchport mode dynamic auto
- D. configure switchport trunk dynamic desirable

Answer: C

NEW QUESTION 105

- (Topic 2)

An office has 8 floors with approximately 30-40 users per floor What command must be configured on the router Switched Virtual Interface to use address space efficiently?

- A. ip address 192.168.0.0 255.255.0.0
- B. ip address 192.168.0.0 255.255.254.0
- C. ip address 192.168.0.0 255.255.255.128
- D. ip address 192.168.0.0 255.255.255.224

Answer: B

NEW QUESTION 109

- (Topic 2)

R1 has learned route 192.168.12.0/24 via IS-IS. OSPF, RIP, and Internal EIGRP Under normal operating conditions, which routing protocol is installed in the routing table?

- A. IS-IS
- B. RIP
- C. Internal EIGRP
- D. OSPF

Answer: C

Explanation:

With the same route (prefix), the router will choose the routing protocol with lowest Administrative Distance (AD) to install into the routing table. The AD of Internal EIGRP (90) is lowest so it would be chosen. The table below lists the ADs of popular routing protocols.

Route Source	Administrative Distance
Directly Connected	0
Static	1
EIGRP	90
EIGRP Summary route	5
OSPF	110
RIP	120

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Note: The AD of IS-IS is 115. The "EIGRP" in the table above is "Internal EIGRP". The AD of "External EIGRP" is 170. An EIGRP external route is a route that was redistributed into EIGRP.

NEW QUESTION 112

- (Topic 2)

What prevents a workstation from receiving a DHCP address?

- A. DTP
- B. STP
- C. VTP
- D. 802.10

Answer: B

NEW QUESTION 117

- (Topic 2)

What are two benefits of network automation? (Choose two)

- A. reduced operational costs
- B. reduced hardware footprint
- C. faster changes with more reliable results
- D. fewer network failures
- E. increased network security

Answer: AC

NEW QUESTION 118

- (Topic 2)

What are two benefits of FHRPs? (Choose two.)

- A. They prevent (oops in the Layer 2 network.
- B. They allow encrypted traffic.
- C. They are able to bundle multiple ports to increase bandwidth
- D. They enable automatic failover of the default gateway.
- E. They allow multiple devices to serve as a single virtual gateway for clients in the network

Answer: DE

NEW QUESTION 119

- (Topic 2)

What is a characteristic of private IPv4 addressing?

- A. traverse the Internet when an outbound ACL is applied
- B. issued by IANA in conjunction with an autonomous system number
- C. composed of up to 65,536 available addresses
- D. used without tracking or registration

Answer: D

NEW QUESTION 122

- (Topic 2)

Which configuration is needed to generate an RSA key for SSH on a router?

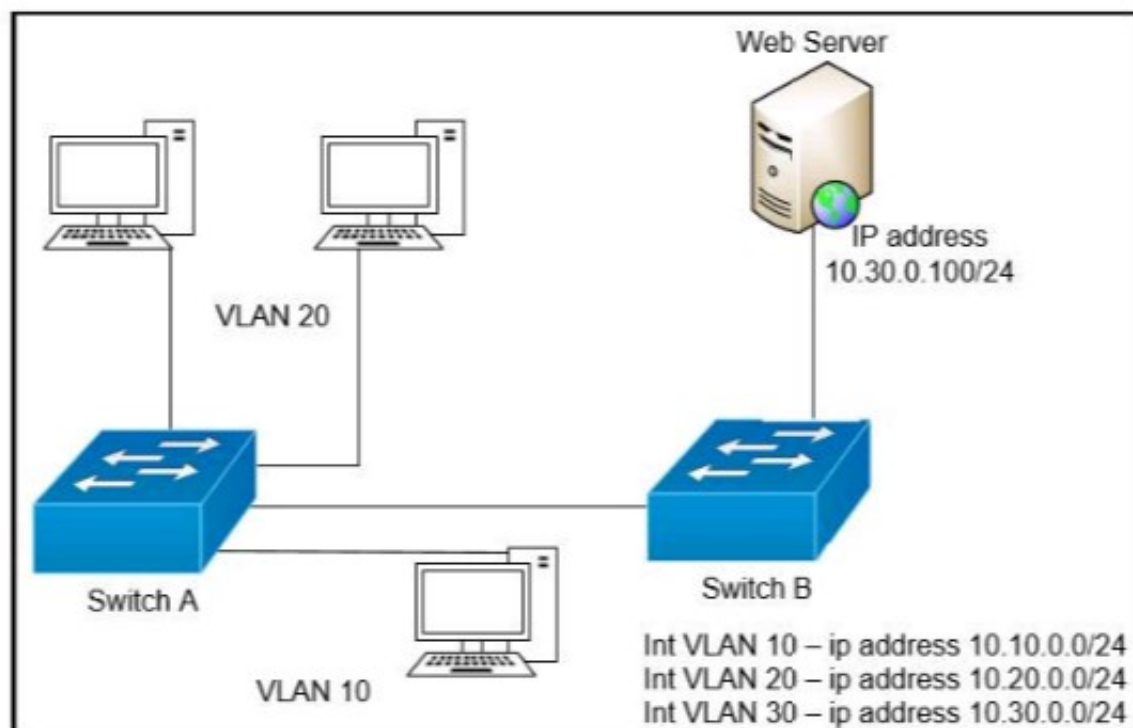
- A. Configure the version of SSH
- B. Configure VTY access.
- C. Create a user with a password.
- D. Assign a DNS domain name

Answer: D

NEW QUESTION 127

- (Topic 2)

Refer to the exhibit.



A network engineer must block access for all computers on VLAN 20 to the web server via HTTP. All other computers must be able to access the web server. Which configuration when applied to switch A accomplishes this task?

- ☐

```
config t
ip access-list extended wwwblock
deny tcp any host 10.30.0.100 eq 80
int vlan 10
ip access-group wwwblock in
```
- ☐

```
config t
ip access-list extended wwwblock
deny tcp any host 10.30.0.100 eq 80
permit ip any any
int vlan 20
ip access-group wwwblock in
```
- ☐

```
config t
ip access-list extended wwwblock
permit ip any any
deny tcp any host 10.30.0.100 eq 80
int vlan 30
ip access-group wwwblock in
```
- ☐

```
config t
ip access-list extended wwwblock
permit ip any any
deny tcp any host 10.30.0.100 eq 80
int vlan 20
ip access-group wwwblock in
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 130

- (Topic 2)

What is the effect when loopback interfaces and the configured router ID are absent during the OSPF Process configuration?

- A. No router ID is set, and the OSPF protocol does not run.
- B. The highest up/up physical interface IP address is selected as the router ID.
- C. The lowest IP address is incremented by 1 and selected as the router ID.
- D. The router ID 0.0.0.0 is selected and placed in the OSPF process.

Answer: B

NEW QUESTION 132

- (Topic 2)

Which protocol prompts the Wireless LAN Controller to generate its own local web administration SSL certificate for GUI access?

- A. HTTPS
- B. RADIUS
- C. TACACS+
- D. HTTP

Answer: A

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-0/configuration-guide/b_cg80/b_cg80_chapter_011.html

NEW QUESTION 136

- (Topic 2)

A wireless administrator has configured a WLAN; however, the clients need access to a less congested 5-GHz network for their voice quality. What action must be taken to meet the requirement?

- A. enable AAA override
- B. enable RX-SOP
- C. enable DTIM
- D. enable Band Select

Answer: D

NEW QUESTION 138

- (Topic 2)

When deploying syslog, which severity level logs informational message?

- A. 2
- B. 4
- C. 6

Answer: D

Explanation:

<https://en.wikipedia.org/wiki/Syslog>

NEW QUESTION 139

- (Topic 2)

Refer to the exhibit.

```
R1#config t
R1(config)# interface gil/1
R1(config-if)# ip address 192.168.0.1 255.255.255.0

R1(config)# router bgp 65000
R1(config-router)# neighbor 192.168.0.2 remote-as 65001
R1(config-router)# network 10.1.1.0 mask 255.255.255.0

R1(config)# router ospf 1
R1(config)# router-id 1.1.1.1
R1(config)# network 192.168.0.1 0.0.0.0 area 0
R1(config)# network 10.1.1.0 0.0.0.255 area 0

R1(config)# router eigrp 1
R1(config)# eigrp router-id 1.1.1.1
R1(config)# network 10.1.1.0 0.0.0.255
R1(config)# network 192.168.0.1 0.0.0.0

R2#config t
R2(config)# interface gil/1
R2(config-if)# ip address 192.168.0.2 255.255.255.0

R2#config t
R2(config)# router bgp 65001
R2(config-router)# neighbor 192.168.0.1 remote-as 65000

R2(config)# router ospf 1
R2(config)# router-id 2.2.2.2
R2(config)# network 192.168.1.2 0.0.0.0 area 0

R2(config)# router eigrp 1
R2(config)# eigrp router-id 1.1.1.1
R2(config)# network 192.168.0.1 0.0.0.0

R2(config)# ip route 10.1.1.0 255.255.255.0 192.168.0.1
```

Router R2 is configured with multiple routes to reach network 10.1.1.0/24 from router R1. What protocol is chosen by router R2 to reach the destination network 10.1.1.0/24?

- A. eBGP
- B. static
- C. OSPF
- D. EIGRP

Answer: B

NEW QUESTION 140

- (Topic 2)

Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.246 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 209.165.200.246, Serial0/1/0
    is directly connected, Serial0/1/0
    172.16.0.0/16 is variably subnetted, 3 subnets, 3 masks
S   172.16.0.0/24 [1/0] via 207.165.200.250, Serial0/0/0
O   172.16.0.128/25 [110/38443] via 207.165.200.254, 00:00:23, Serial0/0/1
D   172.16.0.192/29 [90/3184439] via 207.165.200.254, 00:00:25, Serial0/0/1
    209.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
C   209.165.200.248/30 is directly connected, Serial0/0/0
L   209.165.200.249/32 is directly connected, Serial0/0/0
C   209.165.200.252/30 is directly connected, Serial0/0/1
L   209.165.200.253/32 is directly connected, Serial0/0/1
```

With which metric was the route to host 172.16.0.202 learned?

- A. 110
- B. 38443
- C. 3184439

Answer: C

Explanation:

Both the line “O 172.16.0.128/25” and “S 172.16.0.0/24” cover the host 172.16.0.202 but with the “longest (prefix) match” rule the router will choose the first route.

NEW QUESTION 141

- (Topic 2)

Which condition must be met before an NMS handles an SNMP trap from an agent?

- A. The NMS software must be loaded with the MIB associated with the trap.
- B. The NMS must be configured on the same router as the SNMP agent
- C. The NMS must receive a trap and an inform message from the SNMP agent within a configured interval
- D. The NMS must receive the same trap from two different SNMP agents to verify that it is reliable.

Answer: A

NEW QUESTION 146

- (Topic 2)

An implementer is preparing hardware for virtualization to create virtual machines on a host. What is needed to provide communication between hardware and virtual machines?

- A. hypervisor
- B. router
- C. straight cable
- D. switch

Answer: A

NEW QUESTION 147

- (Topic 2)

An engineer must configure a WLAN using the strongest encryption type for WPA2- PSK. Which cipher fulfills the configuration requirement?

- A. WEP
- B. RC4
- C. AES
- D. TKIP

Answer: C

Explanation:

Many routers provide WPA2-PSK (TKIP), WPA2-PSK (AES), and WPA2- PSK (TKIP/AES) as options. TKIP is actually an older encryption protocol introduced with WPA to replace the very-insecure WEP encryption at the time. TKIP is actually quite similar to WEP encryption. TKIP is no longer considered secure, and is now deprecated. In other words, you shouldn't be using it.

AES is a more secure encryption protocol introduced with WPA2 and it is currently the strongest encryption type for WPA2-PSK.

NEW QUESTION 148

- (Topic 2)

A Cisco IP phone receive untagged data traffic from an attached PC. Which action is taken by the phone?

- A. It allows the traffic to pass through unchanged
- B. It drops the traffic
- C. It tags the traffic with the default VLAN

D. It tags the traffic with the native VLAN

Answer: A

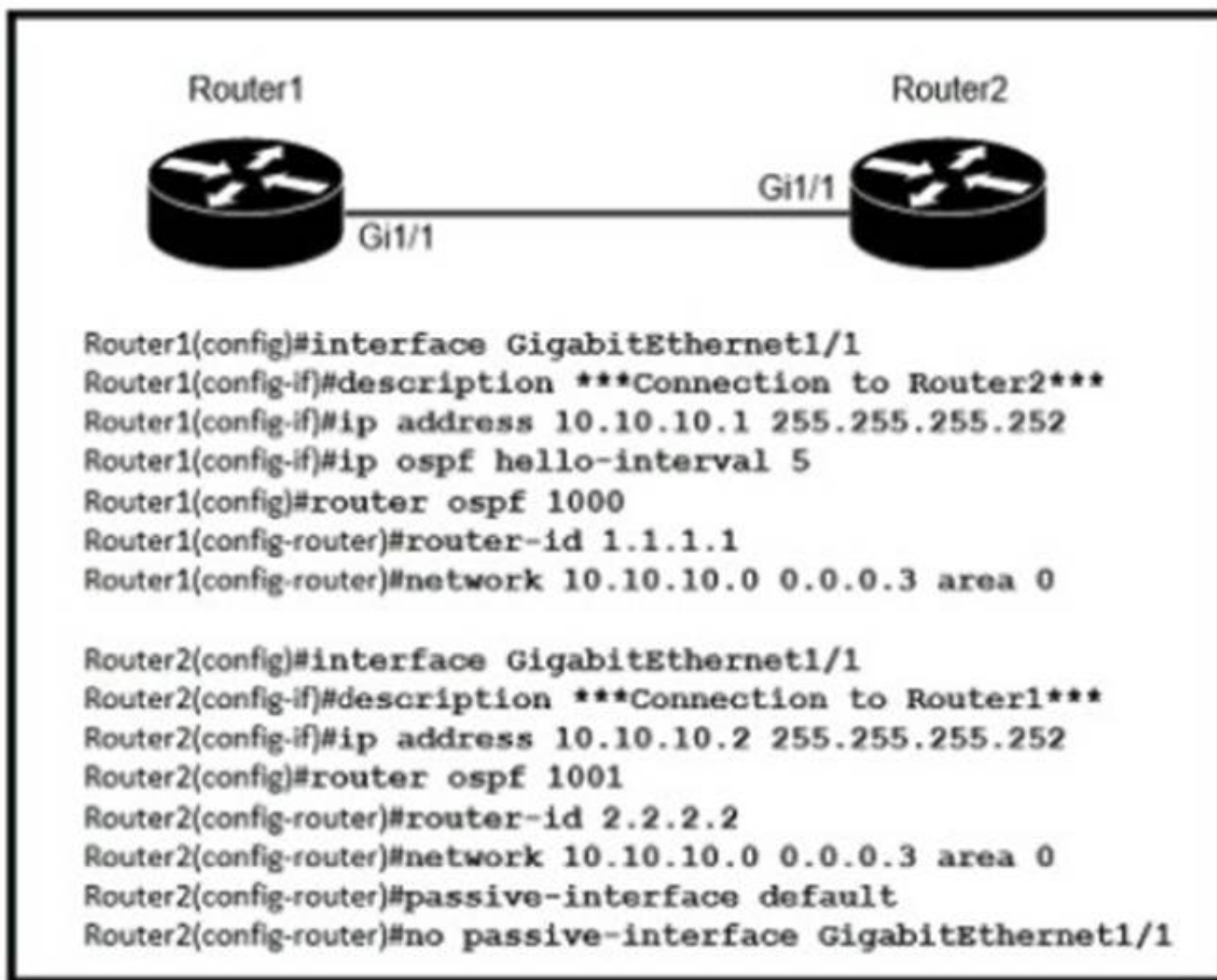
Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960x/software/15-0_2_EX/vlan/configuration_guide/b_vlan_152ex_2960-x_cg/b_vlan_152ex_2960-x_cg_chapter_0110.pdf

Untagged traffic from the device attached to the Cisco IP Phone passes through the phone unchanged, regardless of the trust state of the access port on the phone.

NEW QUESTION 149

- (Topic 2)



Refer to the exhibit. After the configuration is applied, the two routers fail to establish an OSPF neighbor relationship. what is the reason for the problem?

- A. The OSPF router IDs are mismatched.
- B. Router2 is using the default hello timer.
- C. The network statement on Router1 is misconfigured.
- D. The OSPF process IDs are mismatched.

Answer: B

NEW QUESTION 153

- (Topic 2)

An engineer must configure traffic for a VLAN that is untagged by the switch as it crosses a trunk link. Which command should be used?

- A. switchport trunk allowed vlan 10
- B. switchport trunk native vlan 10
- C. switchport mode trunk
- D. switchport trunk encapsulation dot1q

Answer: B

NEW QUESTION 157

- (Topic 2)

When a WPA2-PSK WLAN is configured in the wireless LAN Controller, what is the minimum number of characters that in ASCII format?

- A. 6
- B. 8
- C. 12
- D. 18

Answer: B

NEW QUESTION 161

- (Topic 2)

Refer to the exhibit.



Which configuration issue is preventing the OSPF neighbor relationship from being established between the two routers?

- A. R2 is using the passive-interface default command
- B. R1 has an incorrect network command for interface Gi1/0
- C. R2 should have its network command in area 1
- D. R1 interface Gi1/0 has a larger MTU size

Answer: D

NEW QUESTION 162

- (Topic 2)

An administrator must secure the WLC from receiving spoofed association requests. Which steps must be taken to configure the WLC to restrict the requests and force the user to wait 10 ms to retry an association request?

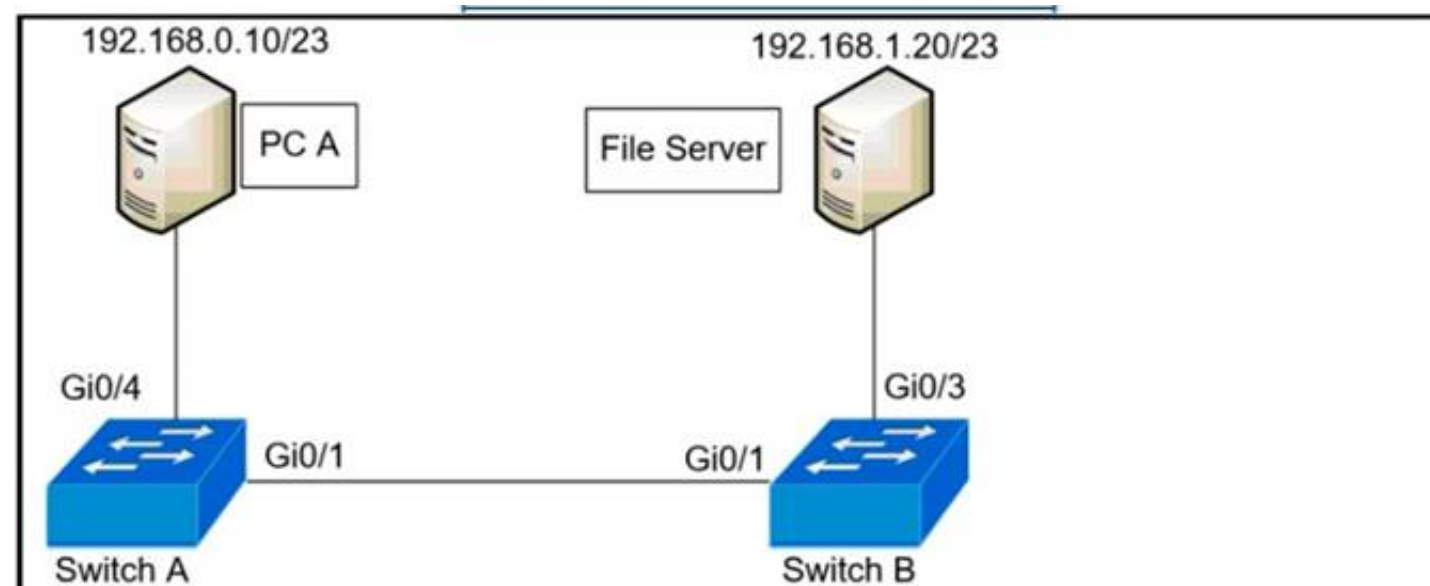
- A. Enable Security Association Teardown Protection and set the SA Query timeout to 10
- B. Enable MAC filtering and set the SA Query timeout to 10
- C. Enable 802.1x Layer 2 security and set the Comeback timer to 10
- D. Enable the Protected Management Frame service and set the Comeback timer to 10

Answer: C

NEW QUESTION 164

- (Topic 2)

Refer to the exhibit.



Switch A Vlan 10,11,12,13 <pre>interface GigabitEthernet0/1 switchport mode trunk switchport trunk allowed vlan 10-12 ! interface GigabitEthernet0/4 switchport access vlan 13 switchport mode access</pre>	Switch B Vlan 10,11,12,13 <pre>interface GigabitEthernet0/1 switchport mode trunk ! interface GigabitEthernet0/3 switchport access vlan 13 switchport mode access</pre>
--	---

A network administrator assumes a task to complete the connectivity between PC A and the File Server. Switch A and Switch B have been partially configured with VLAN 10, 11, 12, and 13. What is the next step in the configuration?

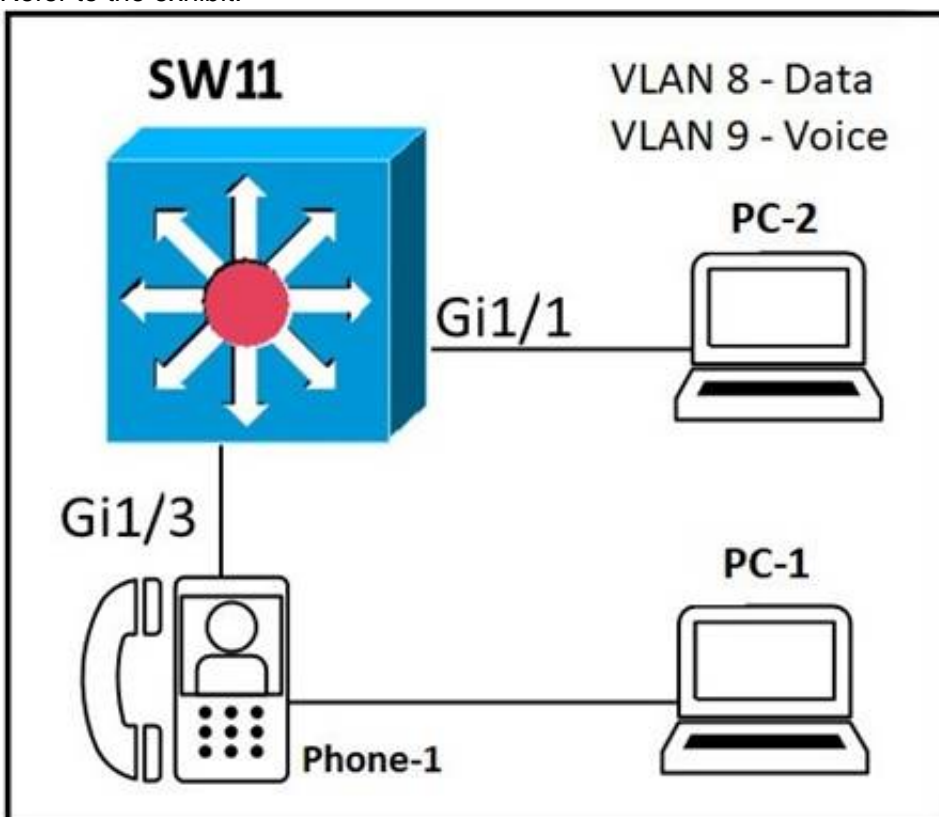
- A. Add PC A to VLAN 10 and the File Server to VLAN 11 for VLAN segmentation
- B. Add VLAN 13 to the trunk links on Switch A and Switch B for VLAN propagation
- C. Add a router on a stick between Switch A and Switch B allowing for Inter-VLAN routing.
- D. Add PC A to the same subnet as the File Server allowing for intra-VLAN communication.

Answer: B

NEW QUESTION 166

- (Topic 2)

Refer to the exhibit.



An administrator must configure interfaces Gi1/1 and Gi1/3 on switch SW11. PC-1 and PC-2 must be placed in the Data VLAN and Phone-1 must be placed in the Voice VLAN. Which configuration meets these requirements?

- ☐ interface gigabitethernet1/1
switchport mode access
switchport access vlan 8
!
interface gigabitethernet1/3
switchport mode access
switchport voice vlan 8
switchport access vlan 9
- ☐ interface gigabitethernet1/1
switchport mode access
switchport access vlan 9
!
interface gigabitethernet1/3
switchport mode trunk
switchport trunk vlan 8
switchport trunk vlan 9
- ☐ interface gigabitethernet1/1
switchport mode access
switchport access vlan 8
!
interface gigabitethernet1/3
switchport mode access
switchport access vlan 8
switchport voice vlan 9
- ☐ interface gigabitethernet1/1
switchport mode access
switchport access vlan 8
!
interface gigabitethernet1/3
switchport mode trunk
switchport trunk vlan 8
switchport voice vlan 9

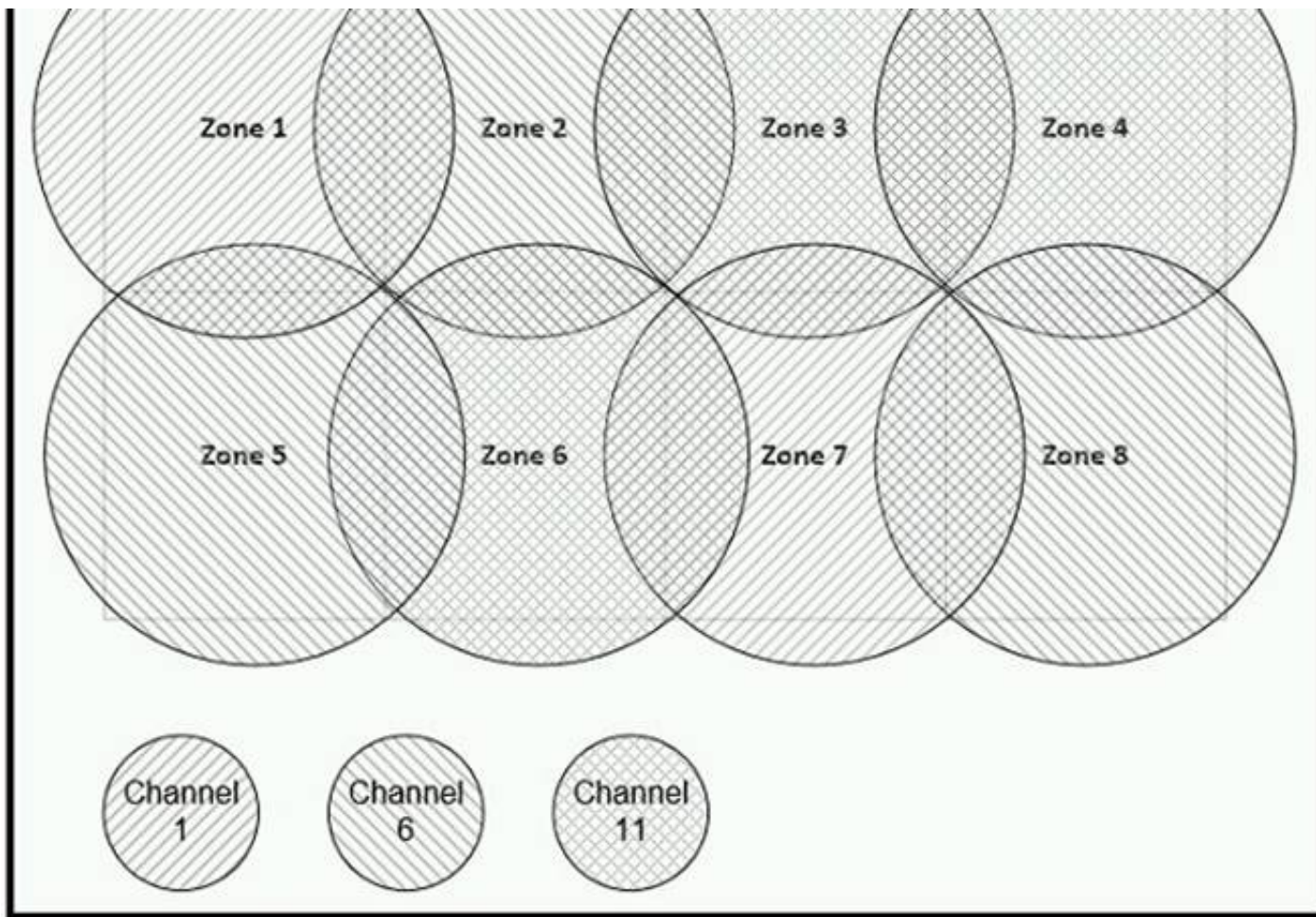
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 170

- (Topic 2)

Refer to the exhibit.



Between which zones do wireless users expect to experience intermittent connectivity?

- A. between zones 1 and 2
- B. between zones 2 and 5
- C. between zones 3 and 4
- D. between zones 3 and 6

Answer: D

NEW QUESTION 175

- (Topic 2)

Which network plane is centralized and manages routing decisions?

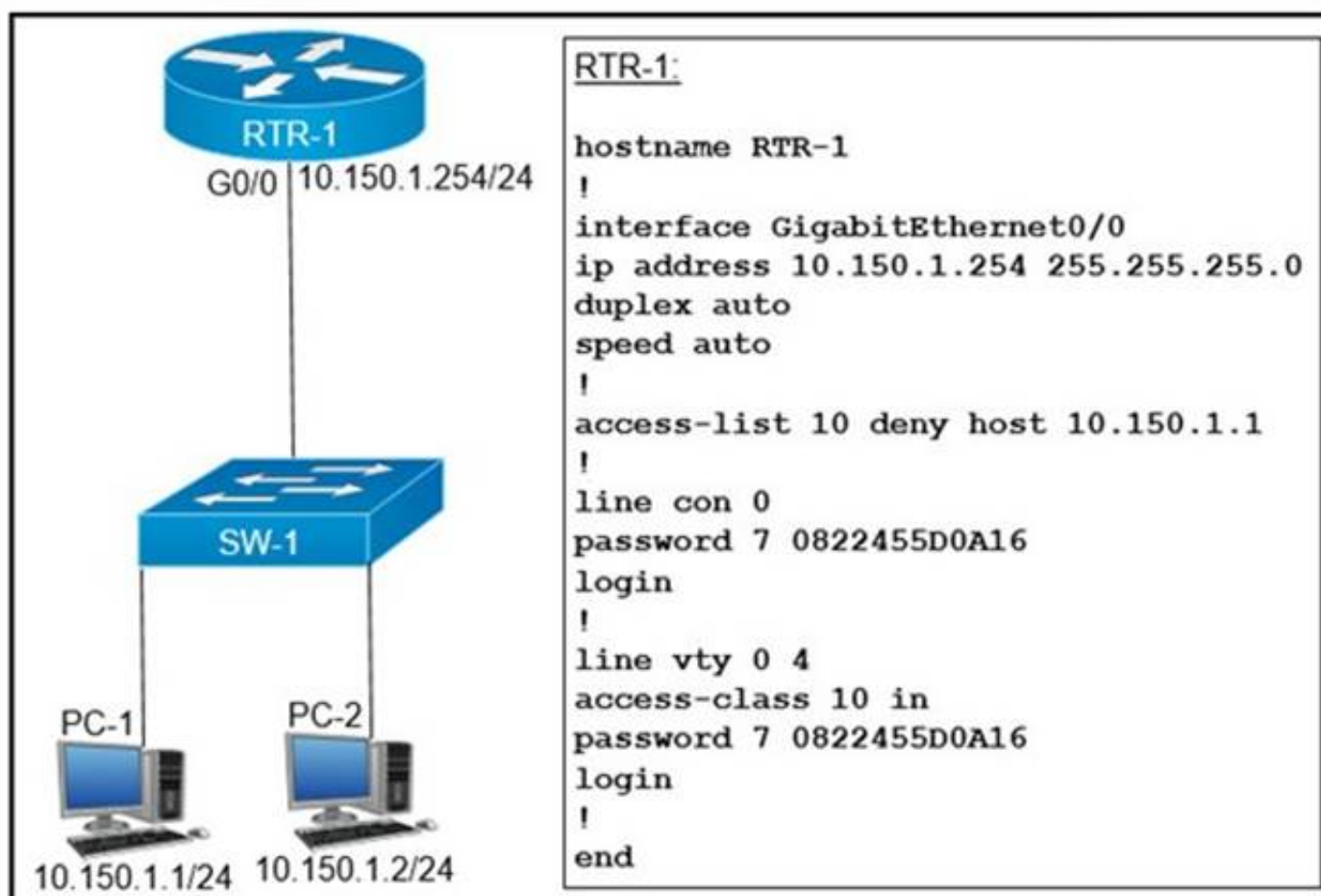
- A. policy plane
- B. management plane
- C. control plane
- D. data plane

Answer: C

NEW QUESTION 179

- (Topic 2)

Refer to the exhibit.



An access list is created to deny Telnet access from host PC-1 to RTR-1 and allow access from all other hosts A Telnet attempt from PC-2 gives this message:"% Connection refused by remote host" Without allowing Telnet access from PC-1, which action must be taken to permit the traffic?

- A. Add the access-list 10 permit any command to the configuration
- B. Remove the access-class 10 in command from line vty 0.4.
- C. Add the ip access-group 10 out command to interface g0/0.
- D. Remove the password command from line vty 0 4.

Answer: A

NEW QUESTION 180

- (Topic 2)

A router running EIGRP has learned the same route from two different paths. Which parameter does the router use to select the best path?

- A. cost
- B. administrative distance
- C. metric
- D. as-path

Answer: C

Explanation:

If a router learns two different paths for the same network from the same routing protocol, it has to decide which route is better and will be placed in the routing table. Metric is the measure used to decide which route is better (lower number is better). Each routing protocol uses its own metric. For example, RIP uses hop counts as a metric, while OSPF uses cost.

NEW QUESTION 185

- (Topic 2)

Which technology can prevent client devices from arbitrarily connecting to the network without state remediation?

- A. 802.1x
- B. IP Source Guard
- C. MAC Authentication Bypass
- D. 802.11n

Answer: A

NEW QUESTION 190

- (Topic 2)

What is a function of a Layer 3 switch?

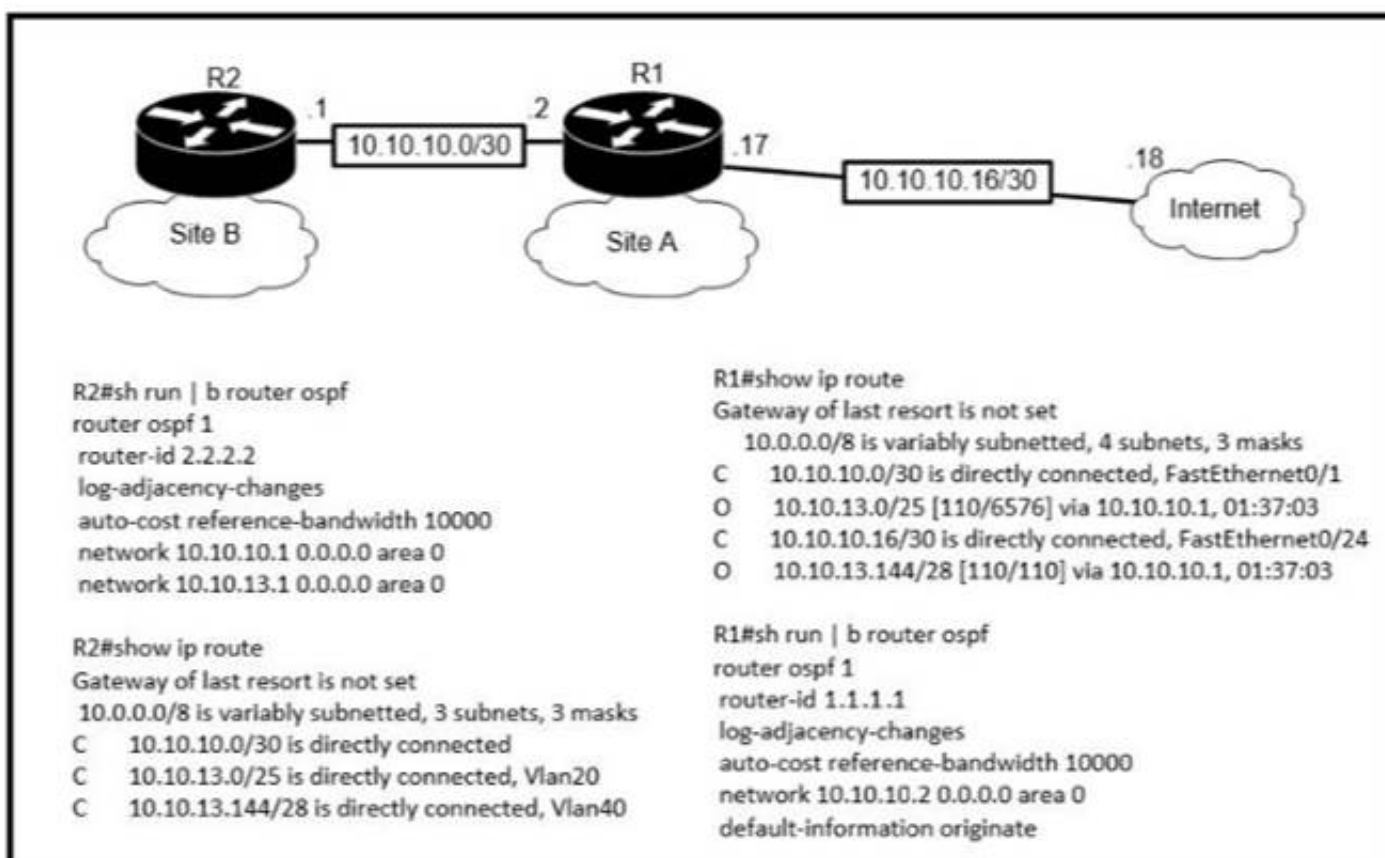
- A. move frames between endpoints limited to IP addresses
- B. transmit broadcast traffic when operating in Layer 3 mode exclusively
- C. forward Ethernet frames between VLANs using only MAC addresses
- D. flood broadcast traffic within a VLAN

Answer: A

NEW QUESTION 194

- (Topic 2)

Refer to the exhibit.



An engineer is bringing up a new circuit to the MPLS provider on the Gi0/1 interface of Router1. The new circuit uses eBGP and teams the route to VLAN25 from the BGP path. What is the expected behavior for the traffic flow for route 10.10.13.0/25?

- A. Traffic to 10.10.13.0/25 is load balanced out of multiple interfaces
- B. Route 10.10.13.0/25 is updated in the routing table as being learned from interface Gi0/1.

- C. Traffic to 10.10.13.0/25 is asymmeteical
- D. Route 10.10.13.0/25 learned via the GiO/0 interface remains in the routing table

Answer: D

NEW QUESTION 195

- (Topic 2)

What is the purpose of an SSID?

- A. It provides network security
- B. It differentiates traffic entering access posits
- C. It identities an individual access point on a WLAN
- D. It identifies a WLAN

Answer: D

Explanation:

“In IEEE 802.11 wireless local area networking standards (including Wi-Fi), a service set is a group of wireless network devices which share a service set identifier (SSID)... A service set forms a logical network of nodes operating with shared link-layer networking parameters; they form one logical network segment.”

NEW QUESTION 197

- (Topic 2)

Which IPv6 address type provides communication between subnets and is unable to route on the Internet?

- A. global unicast
- B. unique local
- C. link-local
- D. multicast

Answer: B

NEW QUESTION 202

- (Topic 1)

Which access layer threat-mitigation technique provides security based on identity?

- A. Dynamic ARP Inspection
- B. using a non-default native VLAN
- C. 802.1x
- D. DHCP snooping

Answer: C

NEW QUESTION 205

- (Topic 1)

When using Rapid PVST+, which command guarantees the switch is always the root bridge for VLAN 200?

- A. spanning -tree vlan 200 priority 614440
- B. spanning -tree vlan 200 priority 38572422
- C. spanning -tree vlan 200 priority 0
- D. spanning -tree vlan 200 root primary

Answer: C

NEW QUESTION 208

- (Topic 1)

Why was the RFC 1918 address space defined?

- A. conserve public IPv4 addressing
- B. preserve public IPv6 address space
- C. reduce instances of overlapping IP addresses
- D. support the NAT protocol

Answer: A

NEW QUESTION 210

- (Topic 1)

Which network action occurs within the data plane?

- A. compare the destination IP address to the IP routing table.
- B. run routing protocols (OSPF, EIGRP, RIP, BGP)
- C. make a configuration change from an incoming NETCONF RPC
- D. reply to an incoming ICMP echo request

Answer: A

NEW QUESTION 211

- (Topic 1)

Which type of information resides on a DHCP server?

- A. a list of the available IP addresses in a pool
- B. a list of public IP addresses and their corresponding names
- C. usernames and passwords for the end users in a domain
- D. a list of statically assigned MAC addresses

Answer: A

NEW QUESTION 213

- (Topic 1)

What is a role of wireless controllers in an enterprise network?

- A. centralize the management of access points in an enterprise network
- B. support standalone or controller-based architectures
- C. serve as the first line of defense in an enterprise network
- D. provide secure user logins to devices on the network.

Answer: A

NEW QUESTION 215

- (Topic 1)

Which 802.11 frame type is association response?

- A. management
- B. protected frame
- C. control
- D. action

Answer: A

Explanation:

Reference: https://en.wikipedia.org/wiki/802.11_Frame_Types

NEW QUESTION 216

- (Topic 1)

Which two command sequences must you configure on switch to establish a Layer 3 EtherChannel with an open-standard protocol? (Choose two)

- A. interface GigabitEthernet0/0/1 channel-group 10 mode on
- B. interface GigabitEthernet0/0/1 channel-group 10 mode active
- C. interface GigabitEthernet0/0/1 channel-group 10 mode auto
- D. interface port-channel 10 switchportswitchport mode trunk
- E. interface port-channel 10 no switchportip address 172.16.0.1.255.255.255.0

Answer: BE

NEW QUESTION 219

- (Topic 1)

What are two roles of the Dynamic Host Configuration Protocol (DHCP)? (Choose two)

- A. The DHCP server offers the ability to exclude specific IP addresses from a pool of IP addresses
- B. The DHCP client can request up to four DNS server addresses
- C. The DHCP server assigns IP addresses without requiring the client to renew them
- D. The DHCP server leases client IP addresses dynamically.
- E. The DHCP client maintains a pool of IP addresses it can assign.

Answer: AD

NEW QUESTION 222

- (Topic 1)

Which statement identifies the functionality of virtual machines?

- A. Virtualized servers run most efficiently when they are physically connected to a switch that is separate from the hypervisor
- B. The hypervisor can virtualize physical components including CP
- C. memory, and storage
- D. Each hypervisor can support a single virtual machine and a single software switch
- E. The hypervisor communicates on Layer 3 without the need for additional resources

Answer: B

NEW QUESTION 224

- (Topic 1)

In QoS, which prioritization method is appropriate for interactive voice and video?

- A. expedited forwarding
- B. traffic policing
- C. round-robin scheduling
- D. low-latency queuing

Answer: D

NEW QUESTION 225

- (Topic 1)

How do TCP and UDP differ in the way they guarantee packet delivery?

- A. TCP uses checksum, acknowledgement, and retransmissions, and UDP uses checksums only.
- B. TCP uses two-dimensional parity checks, checksums, and cyclic redundancy checks and UDP uses retransmissions only.
- C. TCP uses checksum, parity checks, and retransmissions, and UDP uses acknowledgements only.
- D. TCP uses retransmissions, acknowledgement and parity checks and UDP uses cyclic redundancy checks only.

Answer: A

NEW QUESTION 226

- (Topic 1)

When configuring a WLAN with WPA2 PSK in the Cisco Wireless LAN Controller GUI, which two formats are available to select? (Choose two)

- A. ASCII
- B. base64
- C. binary
- D. decimal
- E. hexadecimal

Answer: AE

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-4/configuration/guides/consolidated/b_cg74_CONSOLIDATED/b_cg74_CONSOLIDATED_chapter_01010001.html

NEW QUESTION 229

- (Topic 1)

What uses HTTP messages to transfer data to applications residing on different hosts?

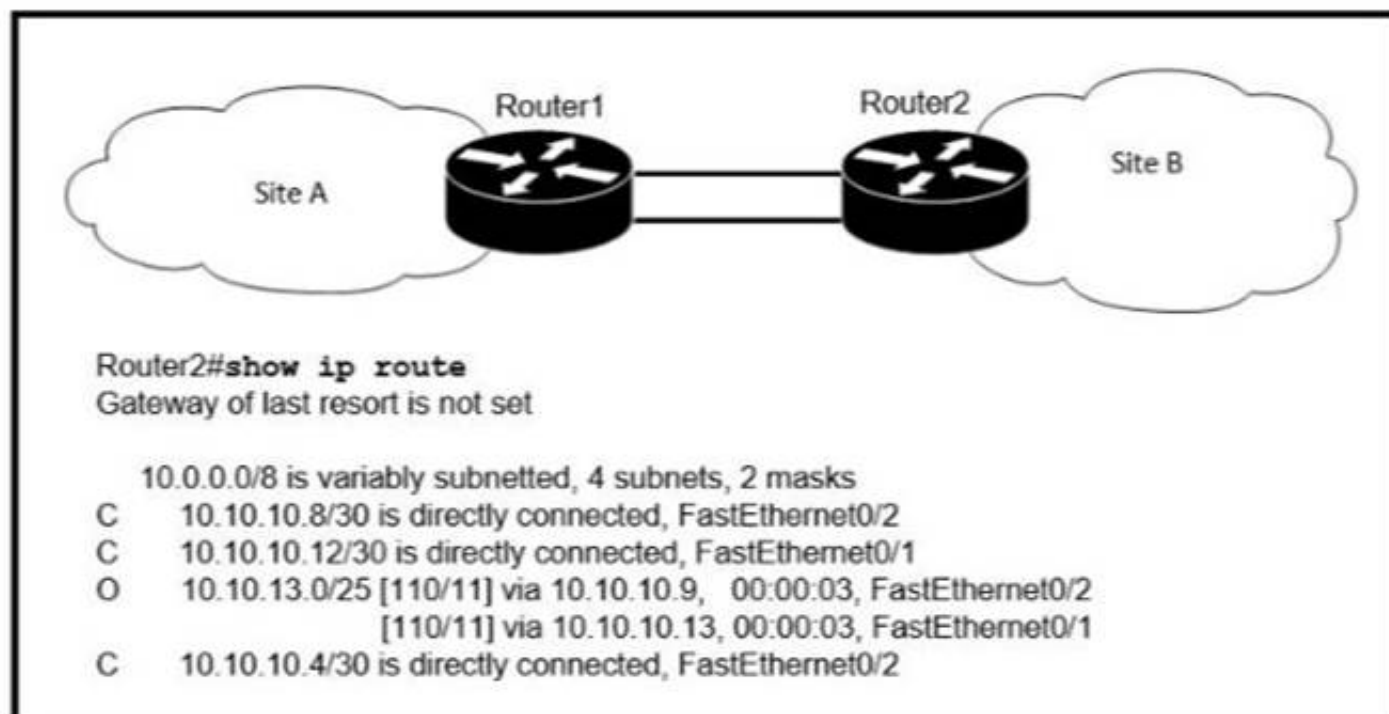
- A. OpenFlow
- B. OpenStack
- C. OpFlex
- D. REST

Answer: D

NEW QUESTION 234

- (Topic 1)

Refer to the exhibit.



If OSPF is running on this network, how does Router 2 handle traffic from Site B to 10.10.13/25 at Site A?

- A. It sends packets out of interface Fa0/2 only.
- B. It sends packets out of interface Fa0/1 only.
- C. It cannot send packets to 10.10.13 128/25
- D. It load-balances traffic out of Fa0/1 and Fa0/2

Answer: C

Explanation:

Router2 does not have an entry for the subnet 10.10.13.128/25. It only has an entry for 10.10.13.0/25, which ranges from 10.10.13.0 to 10.10.13.127.
<https://study-ccna.com/administrative-distance-metric/>

NEW QUESTION 238

- (Topic 1)

Which virtual MAC address is used by VRRP group 1?

- A. 0050.0c05.ad81
- B. 0007.c061.bc01
- C. 0000.5E00.0101
- D. 0500.3976.6401

Answer: C

Explanation:

The virtual router MAC address associated with a virtual router is an IEEE 802 MAC Address in the following format:
00-00-5E-00-01-{VRID} (in hex in internet standard bit-order)

NEW QUESTION 241

- (Topic 1)

Which command on a port enters the forwarding state immediately when a PC is connected to it?

- A. switch(config)#spanning-tree portfast default
- B. switch(config)#spanning-tree portfast bpduguard default
- C. switch(config-if)#spanning-tree portfast trunk
- D. switch(config-if)#no spanning-tree portfast

Answer: C

NEW QUESTION 245

- (Topic 1)

How are the switches in a spine-and-leaf topology interconnected?

- A. Each leaf switch is connected to one of the spine switches.
- B. Each leaf switch is connected to two spine switches, making a loop.
- C. Each leaf switch is connected to each spine switch.
- D. Each leaf switch is connected to a central leaf switch, then uplinked to a core spine switch.

Answer: B

NEW QUESTION 247

- (Topic 1)

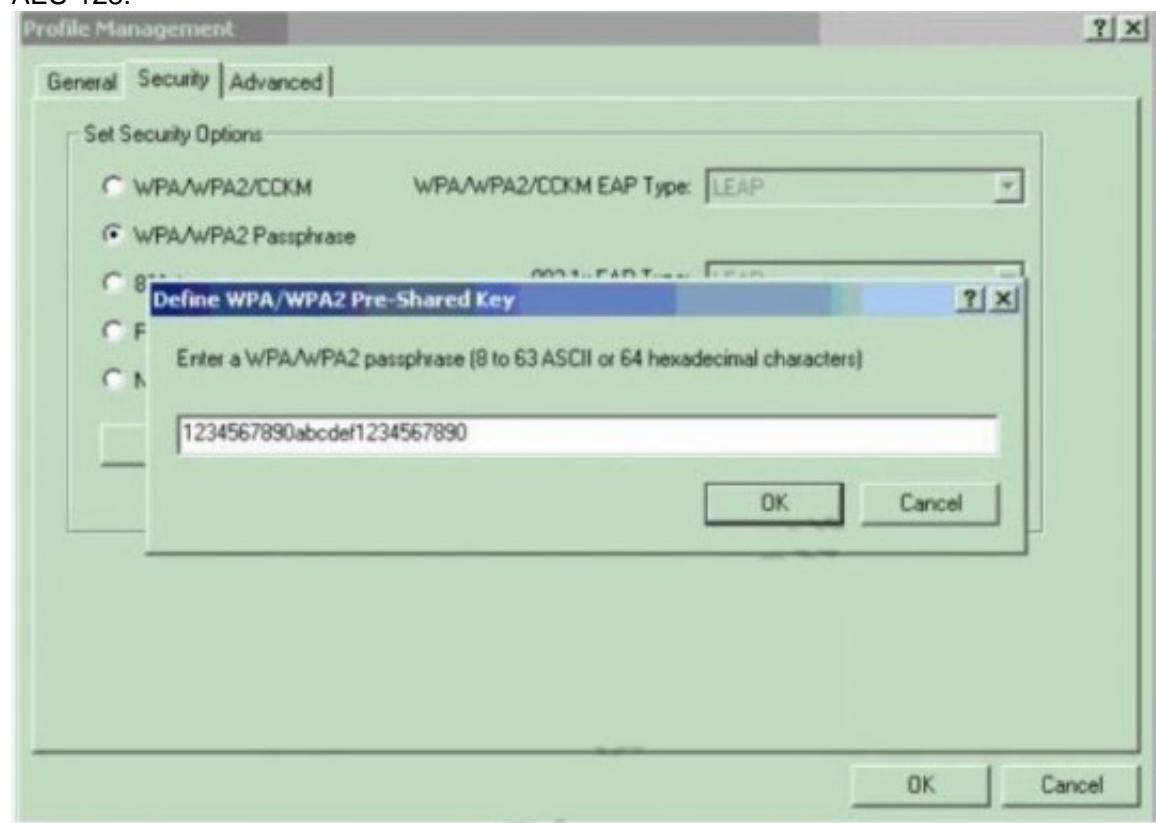
Which type of wireless encryption is used for WPA2 in preshared key mode?

- A. TKIP with RC4
- B. RC4
- C. AES-128
- D. AES-256

Answer: D

Explanation:

We can see in this picture we have to type 64 hexadecimal characters (256 bit) for the WPA2 passphrase so we can deduce the encryption is AES-256, not AES-128.



<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/67134-wpa2-config.html>

NEW QUESTION 252

- (Topic 1)

What is an advantage of Cisco DNA Center versus traditional campus device management?

- A. It supports numerous extensibility options including cross-domain adapters and third- party SDKs.
- B. It supports high availability for management functions when operating in cluster mode.
- C. It enables easy autodiscovery of network elements m a brownfield deployment.
- D. It is designed primarily to provide network assurance.

Answer: A

NEW QUESTION 254

- (Topic 1)

which purpose does a northbound API serve in a controller-based networking architecture?

- A. communicates between the controller and the physical network hardware
- B. reports device errors to a controller
- C. generates statistics for network hardware and traffic
- D. facilitates communication between the controller and the applications

Answer: D

NEW QUESTION 258

- (Topic 1)

Which type of attack can be mitigated by dynamic ARP inspection?

- A. worm
- B. malware
- C. DDoS
- D. man-in-the-middle

Answer: D

NEW QUESTION 261

- (Topic 1)

What is the default behavior of a Layer 2 switch when a frame with an unknown destination MAC address is received?

- A. The Layer 2 switch drops the received frame
- B. The Layer 2 switch floods packets to all ports except the receiving port in the given VLAN.
- C. The Layer 2 switch sends a copy of a packet to CPU for destination MAC address learning.
- D. The Layer 2 switch forwards the packet and adds the destination MAC address to its MAC address table

Answer: B

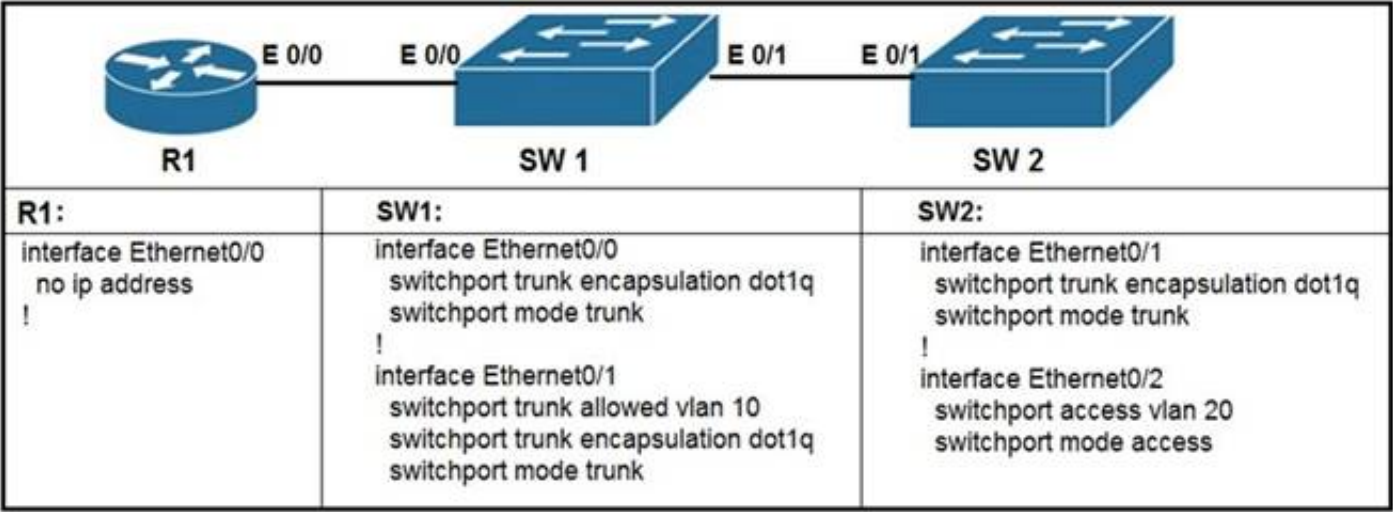
Explanation:

If the destination MAC address is not in the CAM table (unknown destination MAC address), the switch sends the frame out all other ports that are in the same VLAN as the received frame. This is called flooding. It does not flood the frame out the same port on which the frame was received.

NEW QUESTION 265

- (Topic 1)

Refer to the exhibit.



What commands are needed to add a subinterface to Ethernet0/0 on R1 to allow for VLAN 20, with IP address 10.20.20.1/24?

- A. R1(config)#interface ethernet0/0 R1(config)#encapsulation dot1q 20R1(config)#ip address 10.20.20.1 255.255.255.0
- B. R1(config)#interface ethernet0/0.20 R1(config)#encapsulation dot1q 20R1(config)#ip address 10.20.20.1 255.255.255.0
- C. R1(config)#interface ethernet0/0.20 R1(config)#ip address 10.20.20.1 255.255.255.0
- D. R1(config)#interface ethernet0/0 R1(config)#ip address 10.20.20.1 255.255.255.0

Answer: B

NEW QUESTION 267

- (Topic 1)

Refer to the exhibit.

```
ip arp inspection vlan 2-10
interface fastethernet 0/1
ip arp inspection trust
```

If the network environment is operating normally, which type of device must be connected to interface FastEthernet 0/1?

- A. DHCP client
- B. access point
- C. router
- D. PC

Answer: C

NEW QUESTION 272

DRAG DROP - (Topic 1)

Drag the IPv6 DNS record types from the left onto the description on the right.

AAAA	aliases one name to another
CNAME	associates the domain serial number with its owner
NS	correlates a domain with its authoritative name servers
PTR	correlates a host name with an IP address
SOA	supports reverse name lookups

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

[https://ns1.com/resources/dns-types-records-servers-and-queries#:~:text=Address%20Mapping%20record%20\(A%20Record,a%20hostname%20to%20another%20hostname.](https://ns1.com/resources/dns-types-records-servers-and-queries#:~:text=Address%20Mapping%20record%20(A%20Record,a%20hostname%20to%20another%20hostname.)

NEW QUESTION 275

- (Topic 1)

What is recommended for the wireless infrastructure design of an organization?

- A. group access points together to increase throughput on a given channel
- B. configure the first three access points are configured to use Channels 1, 6, and 11
- C. include a least two access points on nonoverlapping channels to support load balancing
- D. assign physically adjacent access points to the same Wi-Fi channel

Answer: B

NEW QUESTION 276

- (Topic 1)

What is the purpose of a southbound API in a control based networking architecture?

- A. Facilities communication between the controller and the applications
- B. Facilities communication between the controller and the networking hardware
- C. allows application developers to interact with the network
- D. integrates a controller with other automation and orchestration tools.

Answer: B

Explanation:

<https://www.ciscopress.com/articles/article.asp?p=2995354&seqNum=2#:~:text=The%20Southbound%20Interface,communicate%20to%20the%20networking%20devices.&text=The%20overall%20goal%20is%20network,from%20being%20only%20a%20protocol.>

The Southbound Interface

In a controller-based network architecture, the controller needs to communicate to the networking devices.

NEW QUESTION 279

- (Topic 1)

How does a switch process a frame received on Fa0/1 with the destination MAC address of 0e38.7363.657b when the table is missing the address?

- A. It drops the frame immediately.
- B. It forwards the frame back out of interface Fa0/1.
- C. It floods the frame to all interfaces except Fa0/1.
- D. It holds the frame until the MAC address timer expires and then drops the frame.

Answer: C

NEW QUESTION 284

- (Topic 1)

Which WAN topology provides a combination of simplicity quality, and availability?

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

Answer: C

NEW QUESTION 287

- (Topic 1)

Which two capacities of Cisco DNA Center make it more extensible as compared to traditional campus device management? (Choose two)

- A. adapters that support all families of Cisco IOS software
- B. SDKs that support interaction with third-party network equipment
- C. customized versions for small, medium, and large enterprises
- D. REST APIs that allow for external applications to interact natively with Cisco DNA Center
- E. modular design that is upgradable as needed

Answer: BD

Explanation:

Cisco DNA Center offers 360-degree extensibility through four distinct types of platform capabilities:+ Intent-based APIs leverage the controller and enable business and IT applications to deliver intent to the network and to reap network analytics and insights for IT and business innovation.+ Process adapters, built on integration APIs, allow integration with other IT and network systems to streamline IT operations and processes.+ Domain adapters, built on integration APIs, allow integration with other infrastructure domains such as data center, WAN, and security to deliver a consistent intent-based infrastructure across the entire IT environment.+ SDKs allow management to be extended to third-party vendor's network devices to offer support for diverse environments.

NEW QUESTION 288

DRAG DROP - (Topic 1)

Drag and drop the AAA functions from the left onto the correct AAA services on the right

records user activities

restricts the services that are available to a user

identifies the user

controls the actions that a user can perform

provides analytical information for the network administrator

verifies the password associated with a user

Authentication

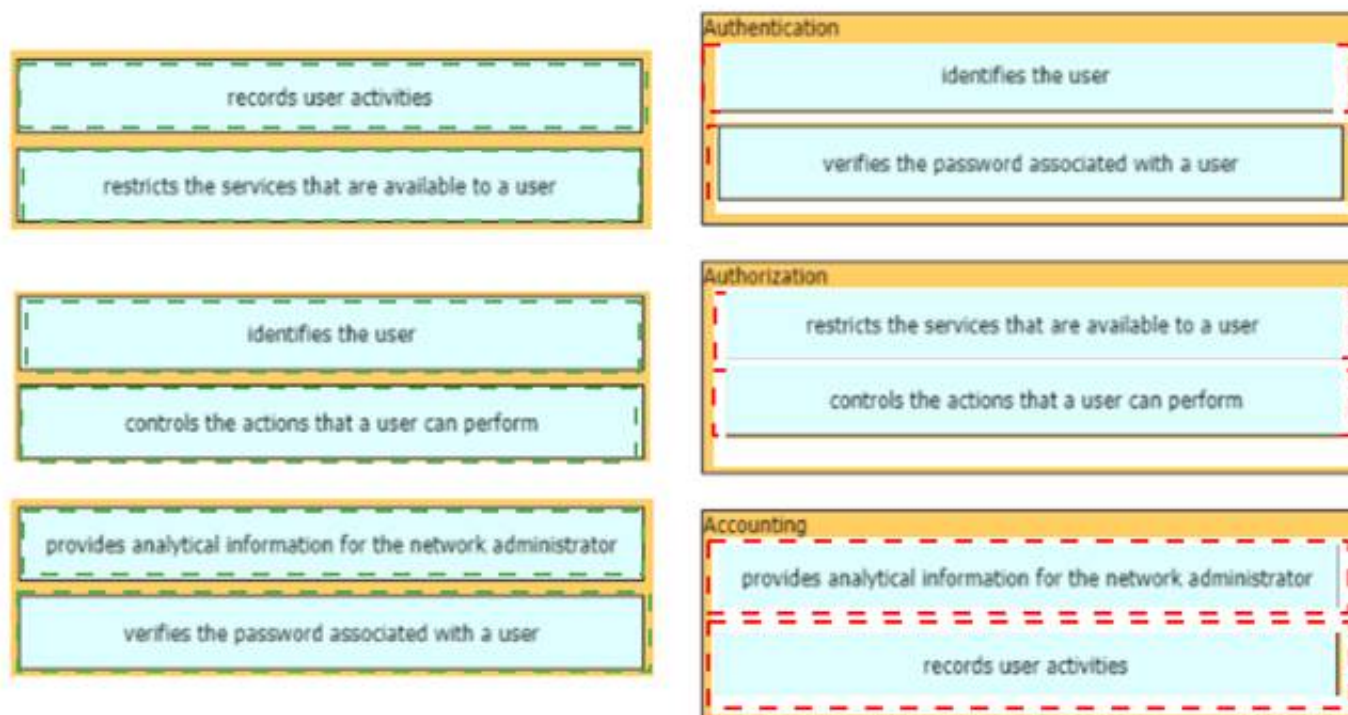
Authorization

Accounting

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 291

- (Topic 1)

Which function is performed by the collapsed core layer in a two-tier architecture?

- A. enforcing routing policies
- B. marking interesting traffic for data polices
- C. attaching users to the edge of the network
- D. applying security policies

Answer: A

NEW QUESTION 293

- (Topic 1)

What is an appropriate use for private IPv4 addressing?

- A. on the public-facing interface of a firewall
- B. to allow hosts inside to communicate in both directions with hosts outside the organization
- C. on internal hosts that stream data solely to external resources
- D. on hosts that communicates only with other internal hosts

Answer: D

NEW QUESTION 297

- (Topic 1)

An engineer needs to add an old switch back into a network. To prevent the switch from corrupting the VLAN database which action must be taken?

- A. Add the switch in the VTP domain with a lower revision number
- B. Add the switch with DTP set to dynamic desirable
- C. Add the switch in the VTP domain with a higher revision number
- D. Add the switch with DTP set to desirable

Answer: A

NEW QUESTION 298

- (Topic 1)

Which security program element involves installing badge readers on data-center doors to allow workers to enter and exit based on their job roles?

- A. role-based access control
- B. biometrics
- C. multifactor authentication
- D. physical access control

Answer: D

NEW QUESTION 302

- (Topic 1)

When a floating static route is configured, which action ensures that the backup route is used when the primary route fails?

- A. The floating static route must have a higher administrative distance than the primary route so it is used as a backup
- B. The administrative distance must be higher on the primary route so that the backup route becomes secondary.
- C. The floating static route must have a lower administrative distance than the primary route so it is used as a backup
- D. The default-information originate command must be configured for the route to be installed into the routing table

Answer: A

NEW QUESTION 306

- (Topic 1)

Refer to the exhibit.

```
R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate default
       U - per-user static route, o - ODR
Gateway of last resort is not set
C    1.0.0.0/8 is directly connected, Loopback0
    10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O    10.0.1.3/32 [110/100] via 10.0.1.3, 00:39:08, Serial0
C    10.0.1.0/24 is directly connected, Serial0
O    10.0.1.5/32 [110/5] via 10.0.1.50, 00:39:08, Serial0
O    10.0.1.4/32 [110/10] via 10.0.1.4, 00:39:08, Serial0
```

What is the next hop address for traffic that is destined to host 10.0.1.5?

- A. 10.0.1.3
- B. 10.0.1.50
- C. 10.0.1.4
- D. Loopback 0

Answer: B

NEW QUESTION 311

- (Topic 1)

Refer to exhibit.

```
Router(config)#interface GigabitEthernet 1/0/1
Router(config-if)#ip address 192.168.16.143 255.255.255.240
Bad mask /28 for address 192.168.16.143
```

Which statement explains the configuration error message that is received?

- A. It is a broadcast IP address
- B. The router does not support /28 mask.
- C. It belongs to a private IP address range.
- D. It is a network IP address.

Answer: A

NEW QUESTION 314

- (Topic 1)

Which device performs stateful inspection of traffic?

- A. firewall
- B. switch
- C. access point
- D. wireless controller

Answer: A

NEW QUESTION 315

- (Topic 1)

A port security violation has occurred on a switch port due to the maximum MAC address count being exceeded. Which command must be configured to increment the security- violation count and forward an SNMP trap?

- A. switchport port-security violation access
- B. switchport port-security violation protect
- C. switchport port-security violation restrict
- D. switchport port-security violation shutdown

Answer: C

Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/25ew/configuration/guide/conf/port_sec.html

NEW QUESTION 318

- (Topic 1)

Which two events occur automatically when a device is added to Cisco DNA Center?

(Choose two.)

- A. The device is assigned to the Global site.
- B. The device is placed into the Unmanaged state.
- C. The device is placed into the Provisioned state.
- D. The device is placed into the Managed state.
- E. The device is assigned to the Local site.

Answer: AB

NEW QUESTION 319

- (Topic 1)

Which command is used to specify the delay time in seconds for LLDP to initialize on any interface?

- A. lldp timer
- B. lldp holdtime
- C. lldp reinit
- D. lldp tlv-select

Answer: C

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_37_ey/configuration/guide/scg/swlldp.pdf

+ lldp holdtime seconds: Specify the amount of time a receiving device should hold the information from your device before discarding it+ lldp reinit delay: Specify the delay time in seconds for LLDP to initialize on an interface+ lldp timer rate: Set the sending frequency of LLDP updates in seconds

NEW QUESTION 323

- (Topic 1)

What is a DHCP client?

- A. a workstation that requests a domain name associated with its IP address
- B. a host that is configured to request an IP address automatically
- C. a server that dynamically assigns IP addresses to hosts.
- D. a router that statically assigns IP addresses to hosts.

Answer: B

NEW QUESTION 324

- (Topic 1)

Which global command encrypt all passwords in the running configuration?

- A. password-encrypt
- B. enable password-encryption
- C. enable secret
- D. service password-encryption

Answer: B

NEW QUESTION 327

DRAG DROP - (Topic 1)

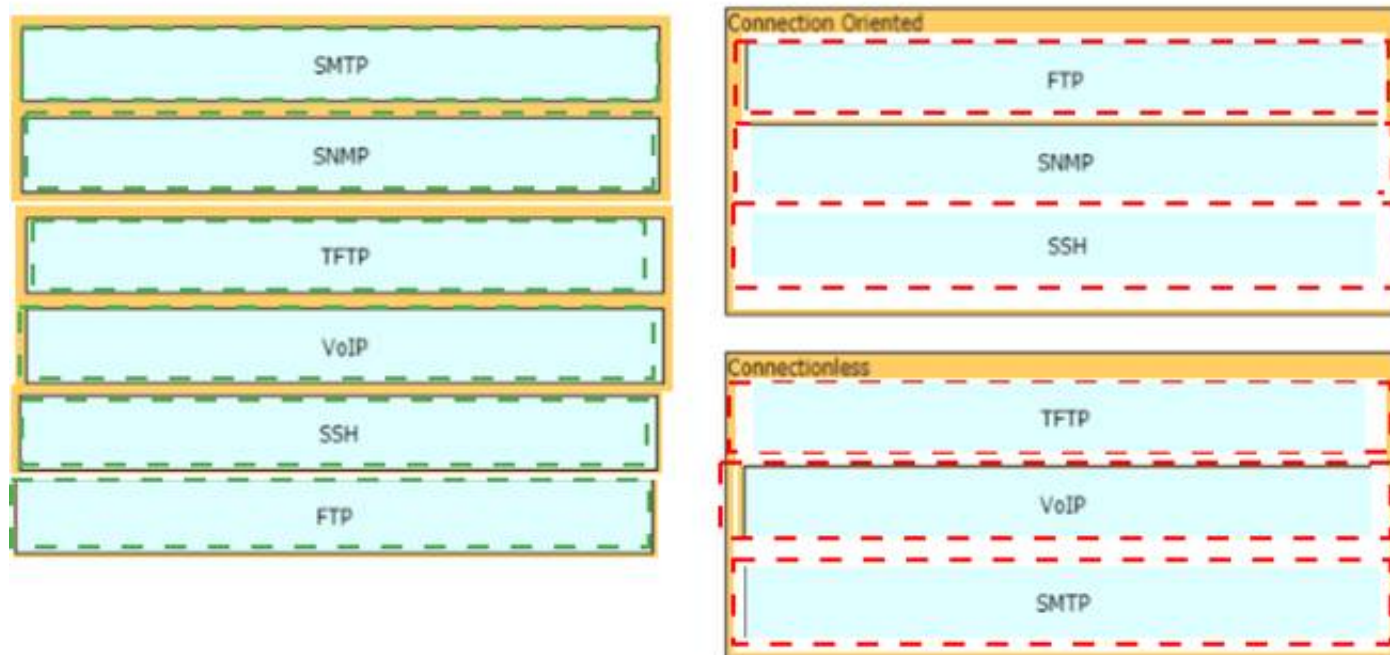
Drag and drop the network protocols from the left onto the correct transport services on the right.

SMTP	Connection Oriented
SNMP	
TFTP	
VoIP	Connectionless
SSH	
FTP	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 328

- (Topic 1)

Which command enables a router to become a DHCP client?

- A. ip address dhcp
- B. ip helper-address
- C. ip dhcp pool
- D. ip dhcp client

Answer: A

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr_dhcp/configuration/12-4/dhcp-12-4-book/config-dhcp-client.html

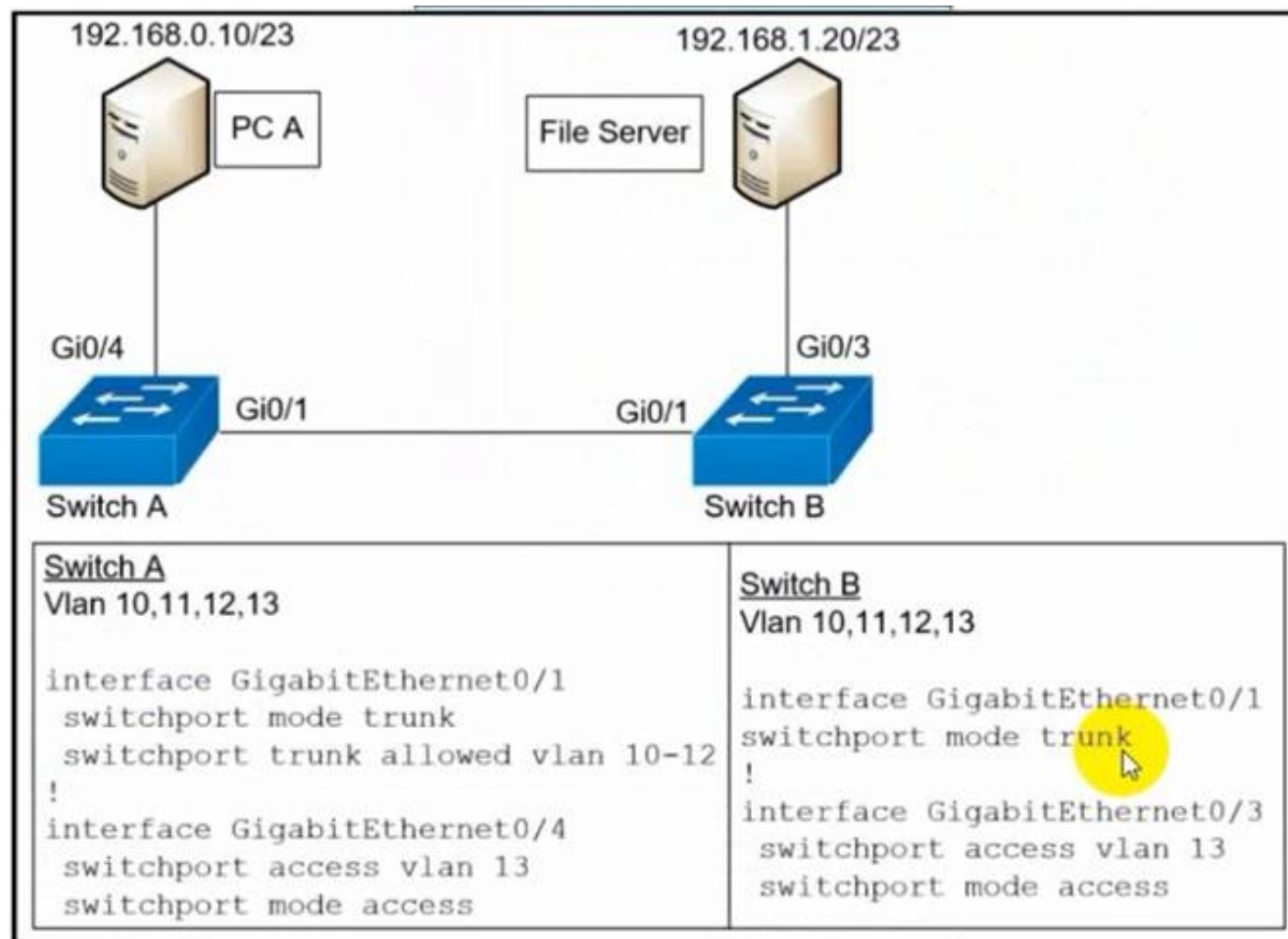
If we want to get an IP address from the DHCP server on a Cisco device, we can use the command "ip address dhcp".

Note: The command "ip helper-address" enables a router to become a DHCP Relay Agent.

NEW QUESTION 329

- (Topic 1)

Refer to the exhibit.



A network engineer must configured communication between PC A and the File Server. To prevent interruption for any other communications, which command must be configured?

- A. Switch trunk allowed vlan 12
- B. Switchport trunk allowed vlan none
- C. Switchport trunk allowed vlan add 13
- D. Switchport trunk allowed vlan remove 10-11

Answer: C

NEW QUESTION 333

- (Topic 1)

Which two WAN architecture options help a business improve scalability and reliability for the network? (Choose two.)

- A. asynchronous routing
- B. single-homed branches
- C. dual-homed branches
- D. static routing
- E. dynamic routing

Answer: AC

NEW QUESTION 335

- (Topic 1)

Which API is used in controller-based architectures to interact with edge devices?

- A. overlay
- B. northbound
- C. underlay
- D. southbound

Answer: D

NEW QUESTION 338

- (Topic 1)

What software defined architecture plane assists network devices with making packet- forwarding decisions by providing Layer 2 reachability and Layer 3 routing information?

- A. data plane
- B. control plane
- C. policy plane
- D. management plane

Answer: B

NEW QUESTION 340

- (Topic 1)

What criteria is used first during the root port selection process?

- A. local port ID
- B. lowest path cost to the root bridge
- C. lowest neighbor's bridge ID
- D. lowest neighbor's port ID

Answer: B

NEW QUESTION 342

- (Topic 1)

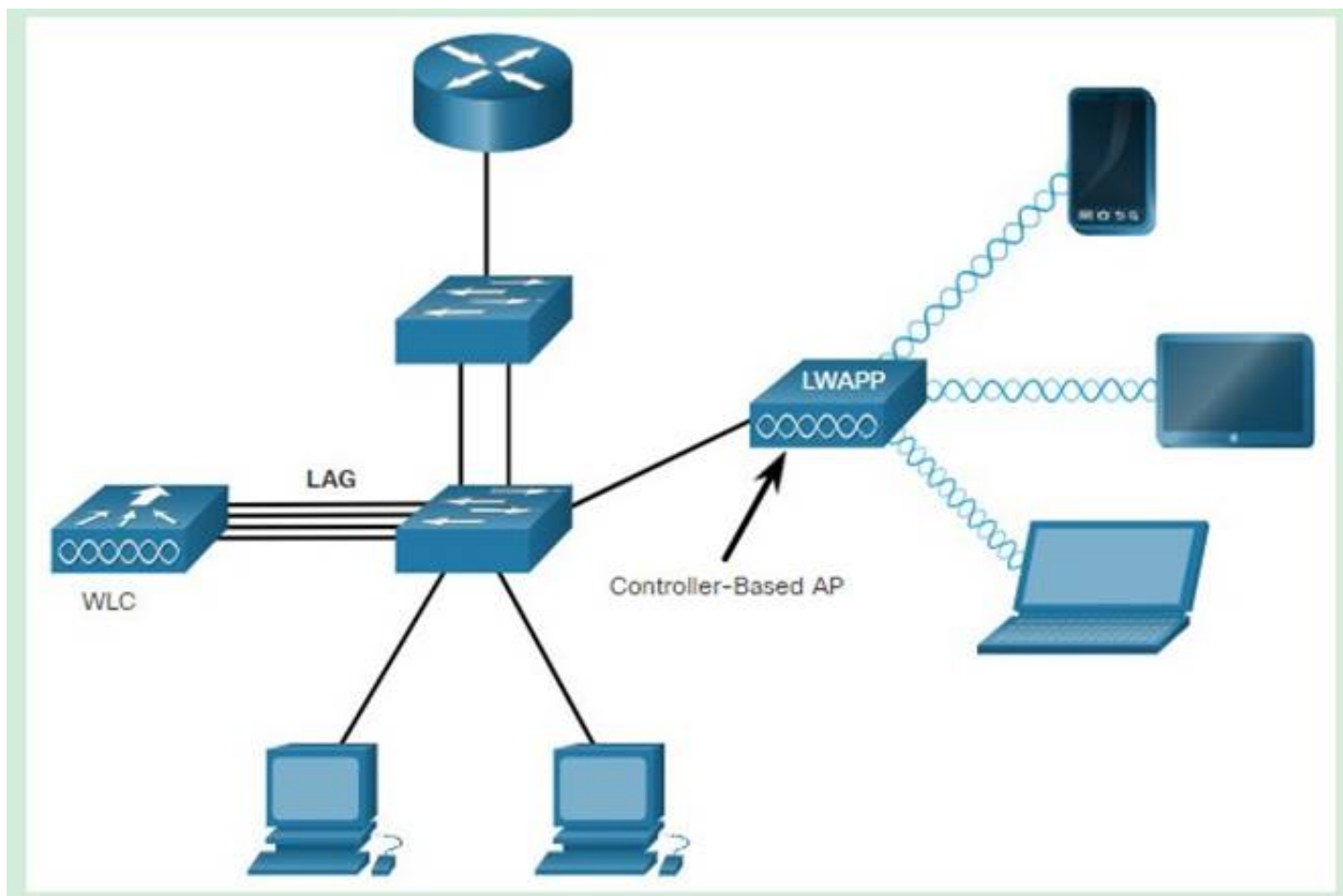
What is a function of Wireless LAN Controller?

- A. register with a single access point that controls traffic between wired and wireless endpoints.
- B. use SSIDs to distinguish between wireless clients.
- C. send LWAPP packets to access points.
- D. monitor activity on wireless and wired LANs

Answer: C

Explanation:

Lightweight APs (LAPs) is devices require no initial configuration. LAPs use the Lightweight Access Point Protocol (LWAPP) to communicate with a WLAN controller (WLC), as shown in the below figure. Controller-based APs are useful in situations where many APs are required in the network. As more APs are added, each AP is automatically configured and managed by the WLC.



NEW QUESTION 347

- (Topic 1)

What is the purpose of traffic shaping?

- A. to mitigate delays over slow links
- B. to provide fair queuing for buffered flows
- C. to limit the bandwidth that a flow can use to
- D. be a marking mechanism that identifies different flows

Answer: B

Explanation:

Traffic shaping retains excess packets in a queue and then schedules the excess for later transmission over increments of time.

NEW QUESTION 352

- (Topic 1)

Which feature on the Cisco Wireless LAN Controller when enabled restricts management access from specific networks?

- A. CPU ACL
- B. TACACS
- C. Flex ACL
- D. RADIUS

Answer: A

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wlan-security/71978-acl-wlc.html>

NEW QUESTION 356

- (Topic 1)

Which protocol does an IPv4 host use to obtain a dynamically assigned IP address?

- A. ARP
- B. DHCP
- C. CDP
- D. DNS

Answer: B

Explanation:

<https://www.geeksforgeeks.org/how-dhcp-server-dynamically-assigns-ip-address-to-a-host/#:~:text=DHCP%20is%20an%20abbreviation%20for,subnet%20mask%20and%20gateway%20address.>

NEW QUESTION 361

- (Topic 1)

What event has occurred if a router sends a notice level message to a syslog server?

- A. A TCP connection has been torn down
- B. An ICMP connection has been built
- C. An interface line has changed status

D. A certificate has expired.

Answer: C

NEW QUESTION 366

- (Topic 1)

In software-defined architecture, which plane handles switching for traffic through a Cisco router?

- A. Control
- B. Management
- C. Data
- D. application

Answer: C

Explanation:

Data plane—Handles all the data traffic. The basic functionality of a Cisco NX-OS device is to forward packets from one interface to another. The packets that are not meant for the switch itself are called the transit packets. These packets are handled by the data plane

NEW QUESTION 368

- (Topic 1)

When a site-to-site VPN is configured, which IPsec mode provides encapsulation and encryption of the entire original IP packet?

- A. IPsec tunnel mode with AH
- B. IPsec transport mode with AH
- C. IPsec tunnel mode with ESP
- D. IPsec transport mode with ESP

Answer: C

Explanation:

“Encapsulating Security Payload...Unlike Authentication Header (AH), ESP in transport mode does not provide integrity and authentication for the entire IP packet. However, in Tunnel Mode, where the entire original IP packet is encapsulated with a new packet header added, ESP protection is afforded to the whole inner IP packet (including the inner header) while the outer header (including any outer IPv4 options or IPv6 extension headers) remains unprotected.

NEW QUESTION 369

- (Topic 1)

Which mode allows access points to be managed by Cisco Wireless LAN Controllers?

- A. autonomous
- B. lightweight
- C. bridge
- D. mobility express

Answer: B

Explanation:

<https://www.cisco.com/c/en/us/support/docs/wireless/aironet-1200-series/70278-lap-faq.html>

A Lightweight Access Point (LAP) is an AP that is designed to be connected to a wireless LAN (WLAN) controller (WLC). APs are “lightweight,” which means that they cannot act independently of a wireless LAN controller (WLC). The WLC manages the AP configurations and firmware. The APs are “zero touch” deployed, and individual configuration of APs is not necessary.

NEW QUESTION 373

- (Topic 1)

How does Cisco DNA Center gather data from the network?

- A. Network devices use different services like SNMP, syslog, and streaming telemetry to send data to the controller
- B. Devices establish an IPsec tunnel to exchange data with the controller
- C. Devices use the call-home protocol to periodically send data to the controller.
- D. The Cisco CU Analyzer tool gathers data from each licensed network device and streams it to the controller.

Answer: A

NEW QUESTION 374

- (Topic 1)

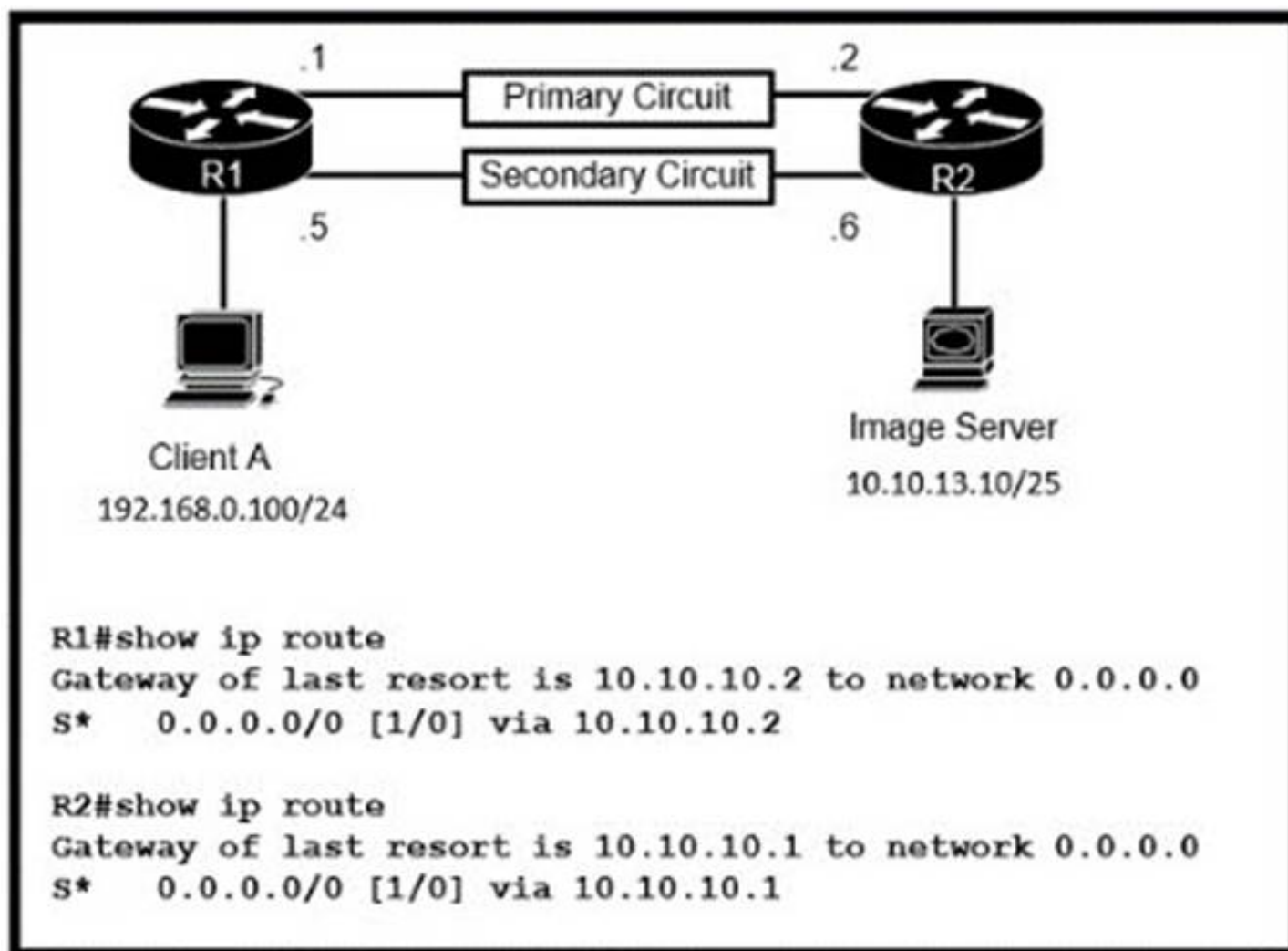
How does QoS optimize voice traffic?

- A. reducing bandwidth usage
- B. by reducing packet loss
- C. by differentiating voice and video traffic
- D. by increasing jitter

Answer: C

NEW QUESTION 375

- (Topic 1)



Refer to the exhibit Routers R1 and R2 have been configured with their respective LAN interfaces The two circuits are operational and reachable across WAN Which command set establishes failover redundancy if the primary circuit goes down?

- ☐ R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.2
 R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.1
- ☒ R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.6 2
 R2(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.5 2
- ☐ R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.6
 R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.5
- ☐ R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.6
 R2(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.5

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 380

- (Topic 1)

Which type of address is the public IP address of a NAT device?

- A. outside global
- B. outsdwde local
- C. inside global
- D. insride local
- E. outside public
- F. inside public

Answer: C

Explanation:

NAT use four types of addresses: * Inside local address – The IP address assigned to a host on the inside network. The address is usually not an IP address assigned by the Internet Network Information Center (InterNIC) or service provider. This address is likely to be an RFC 1918 private address. * Inside global address – A legitimate IP address assigned by the InterNIC or service provider that represents one or more inside local IP addresses to the outside world. * Outside local address – The IP address of an outside host as it is known to the hosts on the inside network. * Outside global address – The IP address assigned to a host on the outside network. The owner of the host assigns this address.

NEW QUESTION 382

- (Topic 1)

Which two WAN architecture options help a business scalability and reliability for the network? (Choose two)

- A. asynchronous routing
- B. single-homed branches
- C. dual-homed branches
- D. static routing
- E. dynamic routing

Answer: AC

NEW QUESTION 385

- (Topic 1)

Which device tracks the state of active connections in order to make a decision to forward a packet through?

- A. wireless access point
- B. firewall
- C. wireless LAN controller
- D. router

Answer: B

Explanation:

Stateful inspection, also known as dynamic packet filtering, is a firewall technology that monitors the state of active connections and uses this information to determine which network packets to allow through the firewall.

NEW QUESTION 390

- (Topic 1)

A frame that enters a switch fails the Frame Check Sequence. Which two interface counters are incremented? (Choose two)

- A. runts
- B. giants
- C. frame
- D. CRC
- E. input errors

Answer: DE

Explanation:

Whenever the physical transmission has problems, the receiving device might receive a frame whose bits have changed values. These frames do not pass the error detection logic as implemented in the FCS field in the Ethernet trailer. The receiving device discards the frame and counts it as some kind of input error. Cisco switches list this error as a CRC error. Cyclic redundancy check (CRC) is a term related to how the FCS math detects an error.

The "input errors" includes runts, giants, no buffer, CRC, frame, overrun, and ignored counts.

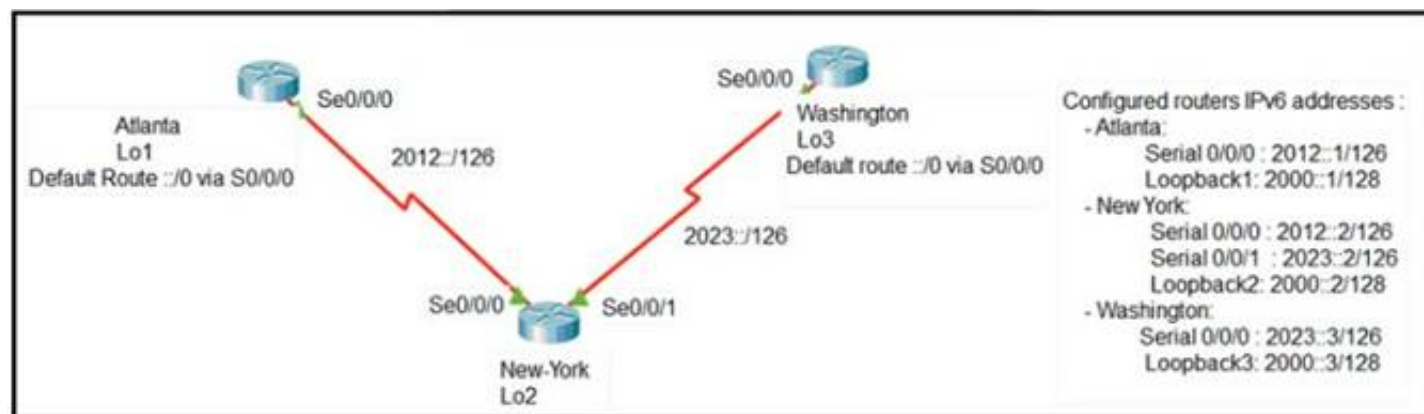
The output below show the interface counters with the "show interface s0/0/0" command:

```
Router#show interface s0/0/0
Serial0/0/0 is up, line protocol is up
  Hardware is M4T
  Description: Link to R2
  Internet address is 10.1.1.1/30
  MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  --output omitted--
  5 minute output rate 0 bits/sec, 0 packets/sec
    268 packets input, 24889 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    251 packets output, 23498 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
    0 output buffer failures, 0 output buffers swapped out
    0 carrier transitions      DCD=up  DSR=up  DTR=up  RTS=up  CTS=up
```

NEW QUESTION 395

- (Topic 1)

Refer to Exhibit.



The loopback1 interface of the Atlanta router must reach the loopback3 interface of the Washington router. Which two static host routes must be configured on the NEW York router? (Choose two)

- A. ipv6 route 2000::1/128 2012::1
- B. ipv6 route 2000::3/128 2023::3
- C. ipv6 route 2000::3/128 s0/0/0
- D. ipv6 route 2000::1/128 2012::2
- E. ipv6 route 2000::1/128 s0/0/1

Answer: AB

NEW QUESTION 396

- (Topic 1)

What causes a port to be placed in the err-disabled state?

- A. latency
- B. port security violation
- C. shutdown command issued on the port
- D. nothing plugged into the port

Answer: B

Explanation:

This mode is the default violation mode; when in this mode, the switch will automatically force the switchport into an error disabled (err-disable) state when a violation occurs. While in this state, the switchport forwards no traffic. The switchport can be brought out of this error disabled state by issuing the errdisable recovery cause CLI command or by disabling and reenabling the switchport.

NEW QUESTION 401

- (Topic 1)

If a notice-level messaging is sent to a syslog server, which event has occurred?

- A. A network device has restarted
- B. An ARP inspection has failed
- C. A routing instance has flapped
- D. A debug operation is running

Answer: C

Explanation:

Usually no action is required when a route flaps so it generates the notification syslog level message (level 5).

NEW QUESTION 405

- (Topic 1)

On workstations running Microsoft Windows, which protocol provides the default gateway for the device?

- A. DHCP
- B. STP
- C. SNMP
- D. DNS

Answer: A

NEW QUESTION 410

- (Topic 1)

Which state does the switch port move to when PortFast is enabled?

- A. learning
- B. forwarding
- C. blocking
- D. listening

Answer: B

NEW QUESTION 415

- (Topic 1)

Which QoS Profile is selected in the GUI when configuring a voice over WLAN deployment?

- A. Bronze
- B. Platinum
- C. Silver
- D. Gold

Answer: B

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/81831-qos-wlc-lap.html>
Cisco Unified Wireless Network solution WLANs support four levels of QoS: Platinum/Voice, Gold/Video, Silver/Best Effort (default), and Bronze/Background.

NEW QUESTION 417

- (Topic 1)

Refer to the exhibit.

```
interface GigabitEthernet0/1
ip address 192.168.1.2 255.255.255.0
ip access-group 2699 in
!
access-list 2699 deny icmp any 10.10.1.0 0.0.0.255 echo
access-list 2699 deny ip any 10.20.1.0 0.0.0.255
access-list 2699 permit ip any 10.10.1.0 0.0.0.255
access-list 2699 permit tcp any 10.20.1.0 0.0.0.127 eq 22
```

A network administrator must permit SSH access to remotely manage routers in a network. The operations team resides on the 10.20.1.0/25 network. Which command will accomplish this task?

- A. access-list 2699 permit udp 10.20.1.0 0.0.0.255
- B. no access-list 2699 deny tcp any 10.20.1.0 0.0.0.127 eq 22
- C. access-list 2699 permit tcp any 10.20.1.0 0.0.0.255 eq 22
- D. no access-list 2699 deny ip any 10.20.1.0 0.0.0.255

Answer: D

Explanation:

Note : Already a statement is there in last to allow SSH Traffic for network 10.20.1.0 0.0.0.127, but Second statement says deny ip any 10.20.1.0 0.0.0.255, so how it will work once it is denied. So the right answer is remove the --- no access-list 2699 deny ip any 10.20.1.0 0.0.0.255.

NEW QUESTION 421

- (Topic 1)

Which 802.11 management frame type is sent when a client roams between access points on the same SSID?

- A. Reassociation Request
- B. Probe Request
- C. Authentication Request
- D. Association Request

Answer: A

NEW QUESTION 423

- (Topic 1)

A network administrator must enable DHCP services between two sites. What must be configured for the router to pass DHCPDISCOVER messages on to the server?

- A. a DHCP Relay Agent
- B. DHCP Binding
- C. a DHCP Pool
- D. DHCP Snooping

Answer: A

NEW QUESTION 424

- (Topic 1)

Which IPv6 address block sends packets to a group address rather than a single address?

- A. 2000::/3
- B. FC00::/7
- C. FE80::/10
- D. FF00::/8

Answer: D

Explanation:

FF00::/8 is used for IPv6 multicast and this is the IPv6 type of address the question wants to ask. FE80::/10 range is used for link-local addresses. Link-local addresses only used for communications within the local subnetwork (automatic address configuration, neighbor discovery, router discovery, and by many routing protocols). It is only valid on the current subnet. It is usually created dynamically using a link-local prefix of FE80::/10 and a 64-bit interface identifier (based on 48-bit MAC address).

NEW QUESTION 429

- (Topic 1)
What is the role of a firewall in an enterprise network?

- A. Forwards packets based on stateless packet inspection
- B. Processes unauthorized packets and allows passage to less secure segments of the network
- C. determines which packets are allowed to cross from unsecured to secured networks
- D. explicitly denies all packets from entering an administrative domain

Answer: C

NEW QUESTION 432

SIMULATION - (Topic 5)

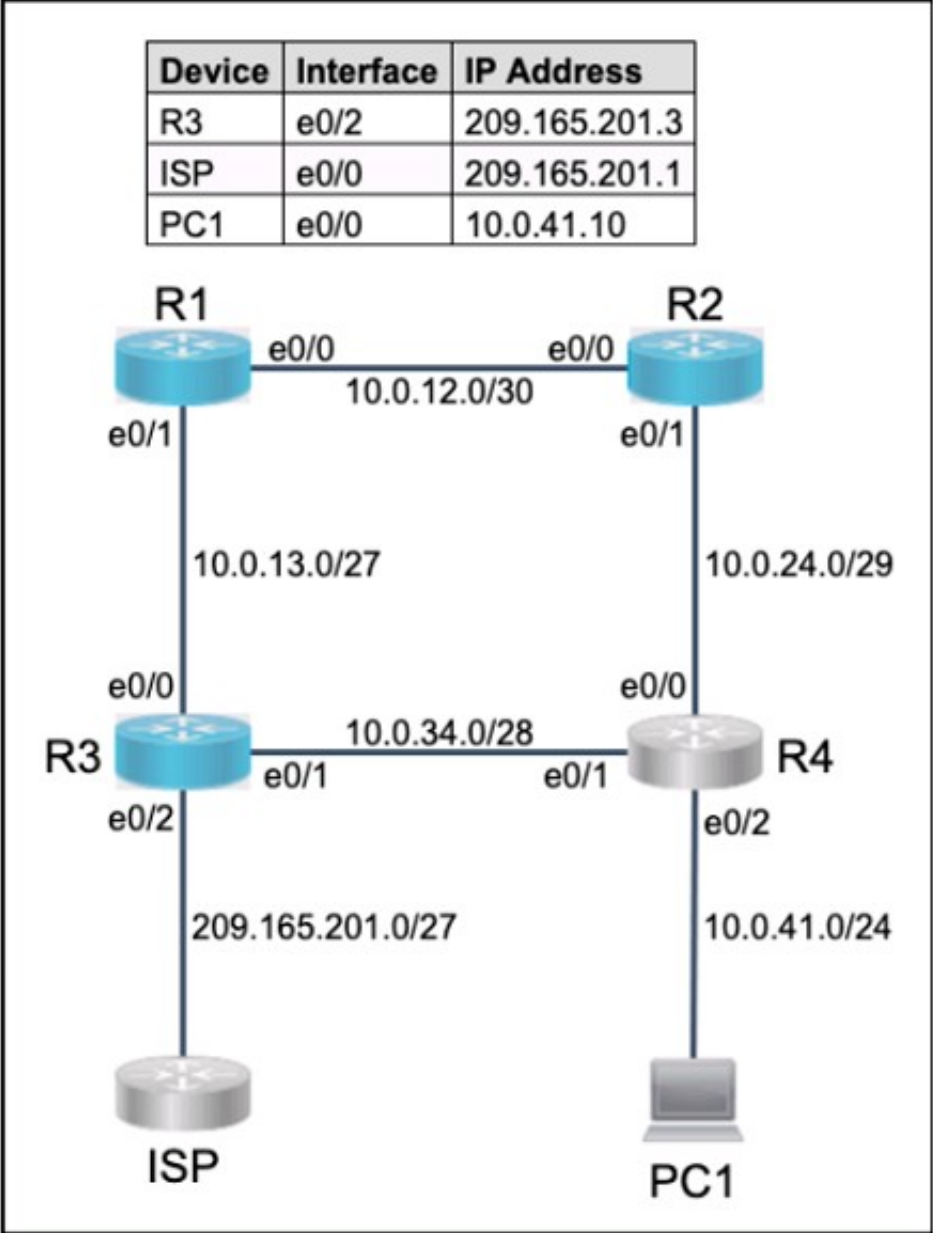
All physical cabling is in place. Router R4 and PC1 are fully configured and inaccessible. R4's WAN interfaces use .4 in the last octet for each subnet. Configurations should ensure that connectivity is established end-to-end. 1 . Configure static routing to ensure R1 prefers the path through R2 to reach only PC1 on R4's LAN

* 2. Configure static routing that ensures traffic sourced from R1 will take an alternate path through R3 to PC1 in the event of an outage along the primary path

* 3. Configure default routes on R1 and R3 to the Internet using the least number of hops

Guidelines

- This is a lab item in which tasks will be performed on virtual devices.
- Refer to the Tasks tab to view the tasks for this lab item.
 - Refer to the Topology tab to access the device console(s) and perform the tasks.
 - Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
 - All necessary preconfigurations have been applied.
 - Do not change the enable password or hostname for any device.
 - Save your configurations to NVRAM before moving to the next item.
 - Click Next at the bottom of the screen to submit this lab and move to the next question.
 - When Next is clicked, the lab closes and cannot be reopened.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

? To configure static routing on R1 to ensure that it prefers the path through R2 to reach only PC1 on R4's LAN, you need to create a static route for the host 10.0.0.100/8 with a next-hop address of 20.0.0.2, which is the IP address of R2's interface connected to R1. You also need to assign a lower administrative distance (AD) to this route than the default AD of 1 for static routes, so that it has a higher preference over other possible routes. For example, you can use an AD of 10 for this route. To create this static route, you need to enter the following commands on R1's console:

```
R1#configure terminal
R1(config)#ip route 10.0.0.100 255.0.0.0 20.0.0.2 10
R1(config)#end
```

? To configure static routing on R1 that ensures that traffic sourced from R1 will take an alternate path through R3 to PC1 in the event of an outage along the primary path, you need to create another static route for the host 10.0.0.100/8 with a next- hop address of 40.0.0.2, which is the IP address of R3's interface connected to R1. You also need to assign a higher AD to this route than the AD of the primary route, so that it has a lower preference and acts as a backup route. For example, you can use an AD of 20 for this route. This type of static route is also known as a floating static route. To create this static route, you need to enter

the following commands on R1's console:

```
R1#configure terminal R1(config)#ip route 10.0.0.100 255.0.0.0 40.0.0.2 20 R1(config)#end
```

? To configure default routes on R1 and R3 to the Internet using the least number of hops, you need to create a static route for the network 0.0.0.0/0 with a next-hop address of the ISP's interface connected to each router respectively. A default route is a special type of static route that matches any destination address and is used when no other specific route is available. The ISP's interface connected to R1 has an IP address of 10.0.0.4, and the ISP's interface connected to R3 has an IP address of 50.0.0.4. To create these default routes, you need to enter the following commands on each router's console:

```
On R1: R1#configure terminal R1(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.4 R1(config)#end
On R3: R3#configure terminal R3(config)#ip route 0.0.0.0 0.0.0.0 50.0.0.4 R3(config)#end
```

NEW QUESTION 436

SIMULATION - (Topic 5)

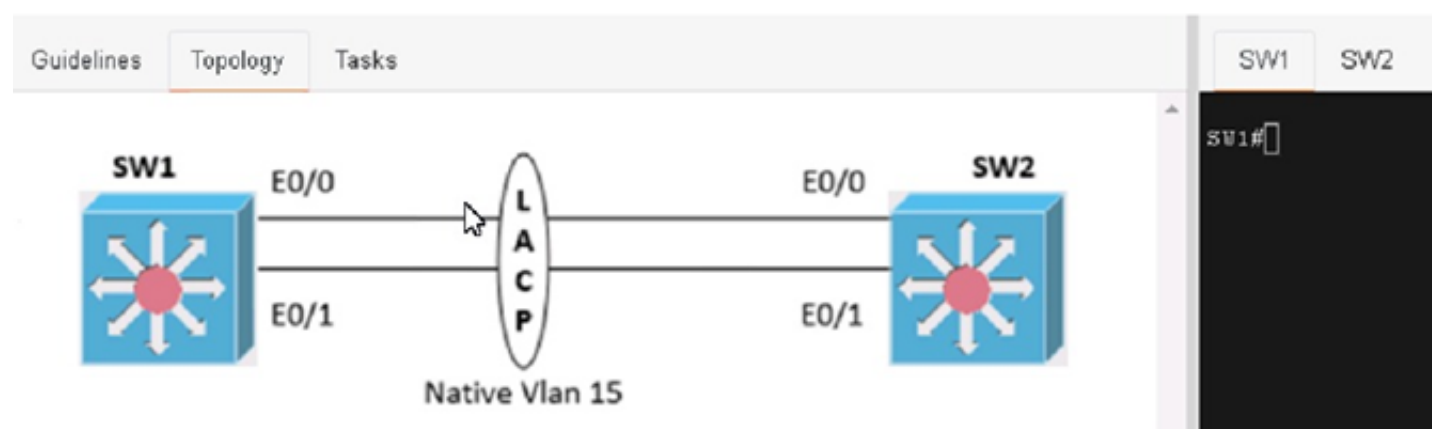
Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured

- * 1. Configure an LACP EtherChannel and number it as 1; configure it between switches SW1 and SVV2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends
- * 2 Configure the EtherChannel as a trunk link.
- * 3. Configure the trunk link with 802.1 q tags.
- * 4. Configure the native VLAN of the EtherChannel as VLAN 15.

Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
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- Do not change the enable password or hostname for any device.
- **Save your configurations** to NVRAM before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

On SW1:

```
conf terminal vlan 15
```

```
exit
```

```
interface range eth0/0 - 1 channel-group 1 mode active exit
```

```
interface port-channel 1
```

```
switchport trunk encapsulation dot1q switchport mode trunk
```

```
switchport trunk native vlan 15 end
```

```
copy run start
```

on SW2:

```
conf terminal
```

```
vlan 15 exit
```

```
interface range eth0/0 - 1 channel-group 1 mode active exit
```

```
interface port-channel 1
```

```
switchport trunk encapsulation dot1q switchport mode trunk
```

```
switchport trunk native vlan 15 end
```

```
copy run start
```

NEW QUESTION 437

DRAG DROP - (Topic 4)

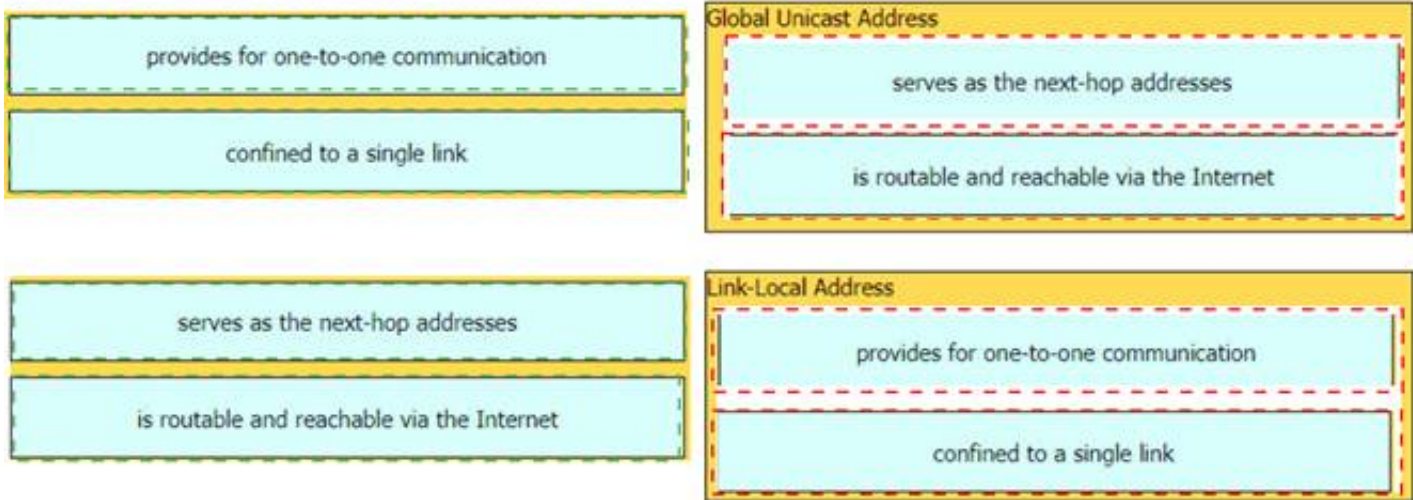
Drag and drop the characteristic from the left onto the IPv6 address type on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 439

- (Topic 4)
A packet from a company s branch office is destined to host 172.31.0.1 at headquarters. The sending router has three possible matches in its routing table for the packet prefixes: 172. 31.0 .0/16, 172.31.0.0/24. and 172.31 0 0/25.
How does the router handle the packet?

- A. It sends the traffic via prefix 172.31.0.0/16
- B. It sends the traffic via the default gateway 0.0.0.0/0.
- C. It sends the traffic via prefix 172.31.0.0/24
- D. It sends the traffic via prefix 172.31.0.0/25

Answer: D

NEW QUESTION 441

- (Topic 4)
Which is a fact related to FTP?

- A. It uses block numbers to identify and mitigate data-transfer errors
- B. It always operates without user authentication
- C. It relies on the well-known UDP port 69.
- D. It uses two separate connections for control and data traffic

Answer: D

NEW QUESTION 443

- (Topic 4)
What are two differences between WPA2 and WPA3 wireless security? (Choose two.)

- A. WPA3 um AES for stronger protection than WPA2 which uses SAE
- B. WPA2 uses 1 M-bit key encryption and WPA3 requires 256-brt key encryption
- C. WPA3 uses AES for stronger protection than WPA2 which uses TKIP WPA3 uses
- D. SAE tor stronger protection than WPA2 which uses AES
- E. WPA2 uses 12B-M key encryption and WPA3 supports 128 bit and 192 bit key encryption

Answer: CE

NEW QUESTION 446

- (Topic 4)

Which WLC interface provides out-of-band management in the Cisco Unified Wireless Network Architecture?

- A. service port
- B. virtual
- C. AP-Manager
- D. dynamic

Answer: A

NEW QUESTION 448

- (Topic 4)

What is a similarity OM3 and OM4 fiber optical cable?

- A. Both have a 62.5 micron core diameter.
- B. Both have a 50 micron core diameter.
- C. Both have a 100 micron core diameter.
- D. Both have a 9 micron core diameter.

Answer: B

NEW QUESTION 449

- (Topic 4)

What is a reason to implement IPv4 private addressing?

- A. Reduce the risk of a network security breach
- B. Comply with PCI regulations
- C. Comply with local law
- D. Reduce the size of the forwarding table on network routers

Answer: D

NEW QUESTION 450

- (Topic 4)

What is a link-local all-nodes IPv6 multicast address?

- A. ff02:0:0:0:0:0:0:1
- B. 2004:31c:73d9:683e:255::
- C. fffe:034:0dd:45d6:789e::
- D. fe80:4433:034:0dd::2

Answer: D

NEW QUESTION 453

- (Topic 4)

Which advantage does the network assurance capability of Cisco DNA Center provide over traditional campus management?

- A. Cisco DNA Center correlates information from different management protocols to obtain insights, and traditional campus management requires manual analysis.
- B. Cisco DNA Center handles management tasks at the controller to reduce the load on infrastructure devices, and traditional campus management uses the data backbone.
- C. Cisco DNA Center leverages YANG and NETCONF to assess the status of fabric and nonfabric devices, and traditional campus management uses CLI exclusively.
- D. Cisco DNA Center automatically compares security postures among network devices, and traditional campus management needs manual comparisons.

Answer: C

NEW QUESTION 454

- (Topic 4)

What is used as a solution for protecting an individual network endpoint from attack?

- A. Router
- B. Wireless controller
- C. Anti software
- D. Cisco DNA Center

Answer: C

NEW QUESTION 457

- (Topic 4)

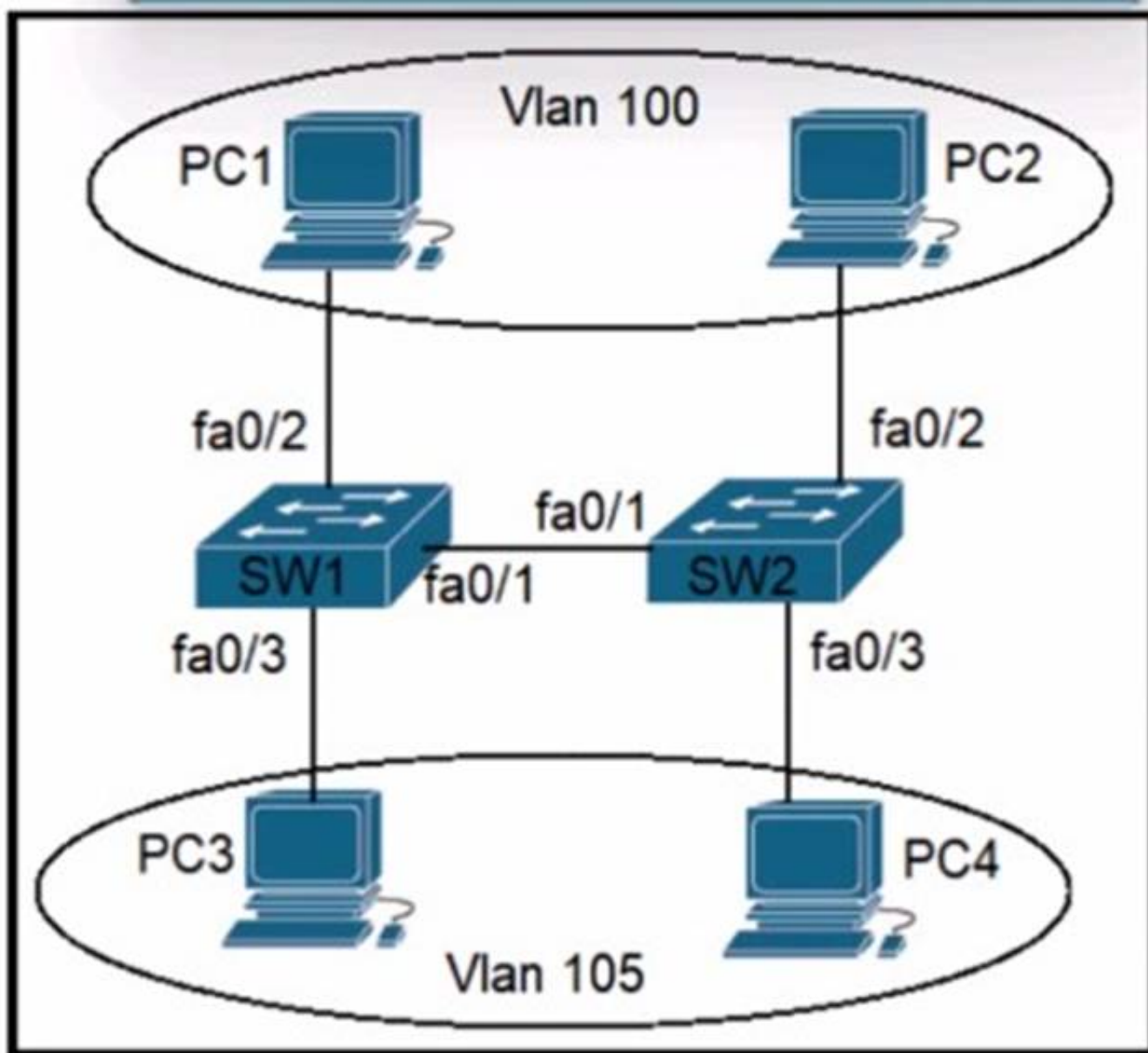
Which two features introduced in SNMPv2 provides the ability to retrieve large amounts of data in one request

- A. Get
- B. GetNext
- C. Set
- D. GetBulk
- E. Inform

Answer: AD

NEW QUESTION 459

- (Topic 4)



A)

```
Switch(config-if)#switchport mode dynamic
Switch(config-if)#switchport access vlan 100,105
Switch(config-if)#switchport trunk native vlan 1
```

B)

```
Switch(config-if)#switchport mode access
Switch(config-if)#switchport trunk encapsulation dot1q
Switch(config-if)#switchport access vlan 100,105
Switch(config-if)#switchport trunk native vlan 3
```

C)

```
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk encapsulation isl
Switch(config-if)#switchport trunk allowed vlan 100,105
Switch(config-if)#switchport trunk native vlan 1
```

D)

```
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk encapsulation dot1q
Switch(config-if)#switchport trunk allowed vlan 100,105
Switch(config-if)#switchport trunk native vlan 3
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 464

- (Topic 4)

An engineer has configured the domain name, user name, and password on the local router. What is the next step to complete the configuration for a Secure Shell access RSA key?

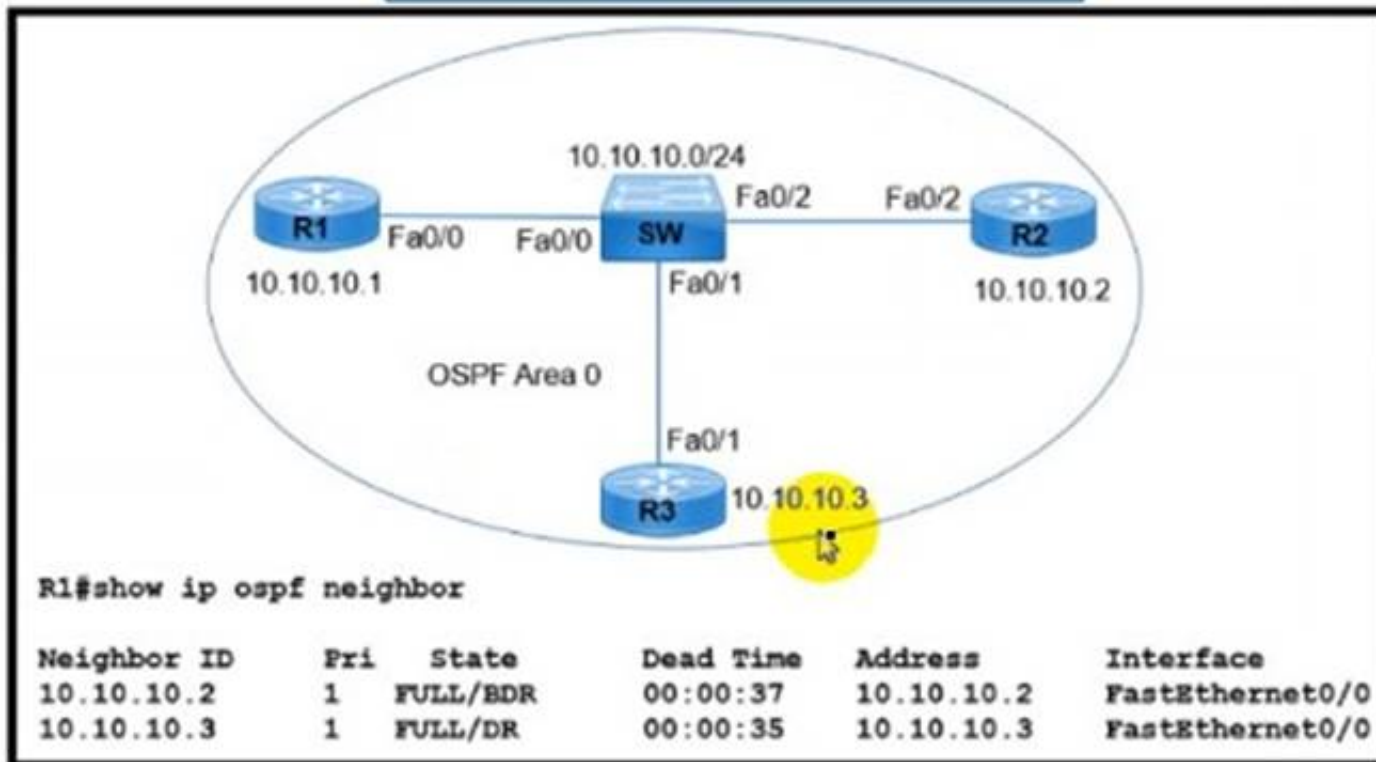
- A. crypto key Import rsa pem
- B. crypto key pubkey-chain rsa
- C. crypto key generate rsa
- D. crypto key zeroize rsa

Answer: C

NEW QUESTION 469

- (Topic 4)

Refer to the exhibit.



R1 has taken the DROTHER role in the OSPF DR/BDR election process. Which configuration must an engineer implement so that R1 is elected as the DR?

- ☐ R1(config)#interface FastEthernet 0/0
R1(config-if)#ip ospf priority 1
R1#clear ip ospf process
- ☐ R1(config)#interface FastEthernet 0/0
R1(config-if)#ip ospf priority 200
R1#clear ip ospf process
- ☐ R3(config)#interface FastEthernet 0/1
R3(config-if)#ip ospf priority 200
R3#clear ip ospf process
- ☐ R2(config)#interface FastEthernet 0/2
R2(config-if)#ip ospf priority 1
R2#clear ip ospf process

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 470

- (Topic 4)

Refer the exhibit.


```
R19#sh int fa0/0
FastEthernet0/0 is up, line protocol is up
Hardware is DEC21140, address is ca02.7788.0000 (bia ca02.7788.0000)
Description: SALES_SUBNET
Internet address is 10.32.102.2/30
MTU 1500 bytes, BW 100000 Kbit/sec, DLY 100 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (60 sec)
Full-duplex, 100Mb/s, 100BaseTX/FX
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:01, output 00:00:00, output hang never
Last clearing of "show interface" counters never
Input queue: 0/300/0/0 (size/max/drops/flushes); Total output drops:
135298429
Queueing strategy: fifo
Output queue: 0/300 (size/max)
30 second input rate 0 bits/sec, 0 packets/sec
30 second output rate 0 bits/sec, 0 packets/sec
73310 packets input, 7101162 bytes
Received 73115 broadcasts (0 IP multicasts)
0 runs, 0 giants, 0 throttles
0 input errors, 4 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog
0 input packets with dribble condition detected
3927513096455 packets output, 14404034810952 bytes, 0 underruns
0 output errors. 11 collisions. 0 interface resets
```

What is the cause of poor performance on router R19?

- A. excessive collisions
- B. speed and duplex mismatch
- C. port oversubscription
- D. excessive CRC errors

Answer: A

NEW QUESTION 471

- (Topic 4)

What is the collapsed layer in collapsed core architectures?

- A. core and WAN
- B. access and WAN
- C. distribution and access
- D. core and distribution

Answer: D

NEW QUESTION 475

DRAG DROP - (Topic 4)

Drag and drop the DNS commands from the left onto their effects on the right.

Drag and drop the DNS commands from the left onto their effects on the right.

ip domain-lookup	adds an entry to the host table
ip domain-name	completes the FQDN of the DNS server
ip host switch_1 192.168.0.1	displays address-mapping information
ip name-server	enables host-to-IP-address translation
show hosts	specifies the IP address of the DNS server

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Drag and drop the DNS commands from the left onto their effects on the right.

ip domain-lookup	ip domain-name
ip domain-name	ip domain-lookup
ip host switch_1 192.168.0.1	show hosts
ip name-server	ip host switch_1 192.168.0.1
show hosts	ip name-server

NEW QUESTION 478

- (Topic 4)
Which port type does a lightweight AP use to connect to the wired network when it is configured in local mode?

- A. EtherChannel
- B. LAG
- C. trunk
- D. access

Answer: D

NEW QUESTION 480

- (Topic 4)
What is the purpose of using First Hop Redundancy Protocol on a specific subnet?

- A. ensures a loop-free physical topology
- B. filters traffic based on destination IP addressing
- C. sends the default route to the hosts on a network
- D. forwards multicast hello messages between routers

Answer: D

NEW QUESTION 484

- (Topic 4)
What is a benefit for external users who consume public cloud resources?

- A. implemented over a dedicated WAN
- B. located in the same data center as the users
- C. all hosted on physical servers
- D. accessed over the Internet

Answer: D

NEW QUESTION 487

- (Topic 4)

What is the function of northbound API?

- A. It upgrades software and restores files.
- B. It relies on global provisioning and configuration.
- C. It supports distributed processing for configuration.
- D. It provides a path between an SDN controller and network applications.

Answer: D

NEW QUESTION 489

- (Topic 4)

Refer to the exhibit.

<u>Current Neighbor Relationship</u>					
Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.1.1	1	FULL/DR	00:00:33	192.168.1.1	GigabitEthernet0/0
<u>Desired Neighbor Relationship</u>					
Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.1.1	0	FULL/ -	00:00:31	192.168.1.1	GigabitEthernet0/0

How must OSPF be configured on the GigabitEthernet0/0 interface of the neighbor device to achieve.

A)
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf priority 1

B)
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf 1 area 2

C)
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf cost 5

D)
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf network point-to-point

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 491

- (Topic 4)

An engineer is configuring SSH version 2 exclusively on the R1 router. What is the minimum configuration required to permit remote management using the cryptographic protocol?

☐ hostname R1

ip domain name cisco

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15

transport input ssh
login local

☐ hostname R1

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15

transport input all
login local

☐ hostname R1

service password-encryption

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15

transport input ssh
login local

☐ hostname R1

ip domain name cisco

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15

transport input all
login local

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 492

- (Topic 4)

What is the primary purpose of a console port on a Cisco WLC?

- A. In-band management via an asynchronous transport
- B. out-of-band management via an IP transport
- C. in-band management via an IP transport
- D. out-of-band management via an asynchronous transport

Answer: D

NEW QUESTION 494

- (Topic 4)

What differentiates device management enabled by Cisco DNA Center from traditional campus device management?

- A. per-device
- B. centralized
- C. device-by-device hands-on
- D. CLI-oriented device

Answer: B

NEW QUESTION 497

- (Topic 4)

Refer to the exhibit.

```
1  [  
2    { "switch": "3750", "port": e2 },  
3    { "router": "2951", "port": e20 },  
4    { "switch": "3750", "port": e23 }  
5  ]
```

What is represented by the word "switch" in line 2 of the JSON schema?

- A. array
- B. key
- C. value
- D. object

Answer: C

NEW QUESTION 499

- (Topic 4)

What is a benefit of using private IPv4 addressing?

- A. Multiple companies can use the same addresses without conflicts.
- B. Direct connectivity is provided to internal hosts from outside an enterprise network.
- C. Communication to the internet is reachable without the use of NAT.
- D. All external hosts are provided with secure communication to the Internet.

Answer: A

NEW QUESTION 503

- (Topic 4)

What is a function of an endpoint?

- A. It is used directly by an individual user to access network services
- B. It passes unicast communication between hosts in a network
- C. It transmits broadcast traffic between devices in the same VLAN
- D. It provides security between trusted and untrusted sections of the network.

Answer: A

NEW QUESTION 505

- (Topic 4)

Refer to the exhibit.

```
R_1# show ip route  
.....  
D 192.168.20.0/26 [90/24513456] via 10.10.10.1  
R 192.168.20.0/24 [120/5] via 10.10.10.2  
O 192.168.0.0/19 [110/219414] via 10.10.10.13  
B 192.168.0.0/16 is variably subnetted, 4 subnets, 4 masks  
D 192.168.20.0/27 [90/4123710] via 10.10.10.12  
D 192.168.20.0/25 [90/14464211] via 10.10.10.11  
S. 0.0.0.0/0 [1/0] via 10.10.10.14
```

Packets are flowing from 192.168.10.1 to the destination at IP address 192.168.20.75. Which next hop will the router select for the packet?

- A. 10.10101
- B. 10.10.10.11
- C. 10.10.10.12
- D. 10.101014

Answer: B

Explanation:

The router will select the next hop based on the longest prefix match in the routing table. The destination IP address 192.168.20.75 belongs to the network 192.168.0.0/19, which is a classless network created by subnetting the classful network 192.168.0.0/16. The routing table has two entries for the network 192.168.0.0/19, one with a metric of 219414 and another with a metric of 5. The router will choose the entry with the lower metric, which is 5, and forward the packet to the next hop 10.10.10.111.

NEW QUESTION 507

- (Topic 4)

Why would VRRP be implemented when configuring a new subnet in a multivendor environment?

- A. when a gateway protocol is required that support more than two Cisco devices for redundancy
- B. to enable normal operations to continue after a member failure without requiring a change in a host ARP cache
- C. to ensure that the spanning-tree forwarding path to the gateway is loop-free
- D. to interoperate normally with all vendors and provide additional security features for Cisco devices

Answer: A

NEW QUESTION 510

- (Topic 4)

Which set of 2.4 GHz nonoverlapping wireless channels is standard in the United States?

- A. channels 2, 7, 9, and 11
- B. channels 1, 6, 11, and 14
- C. channels 2, 7, and 11
- D. channels 1, 6, and 11

Answer: D

Explanation:

In the United States, while channels 1-13 can be used for 2.4 GHz WiFi, only three channels are considered non-overlapping (channels 12 and 13 are allowed under low powered conditions, but for most cases are not used). For best results, it is highly recommended to keep the 2.4 GHz channels to 1, 6, and 11, as these channel settings will allow for virtually no overlap in the WiFi signal. Shown below is a channel graph from WiFi Scanner showing three access points configured for channels 1, 6, and 11. As you can see, the center of each signal is at 1, 6, and 11 with the actual signal extending over several channels to the left and right.

NEW QUESTION 511

- (Topic 4)

Which two wireless security stewards use Counter Mode Cipher Block Chaining Message Authentication Code Protocol for encryption and data integrity'? (Choose two.)

- A. WPA2
- B. WPA3
- C. Wi-Fi 6
- D. WEP
- E. WPA

Answer: BD

NEW QUESTION 516

- (Topic 4)

Refer to the exhibit.

How does router R1 handle traffic to the 172.16.1.4/30 subnet?

- A. It sends all traffic over the path via 172.16.9.5 using 172.16.4.4 as a backup.
- B. It sends all traffic over the path via 10.0.1.100.
- C. It load-balances traffic over 172.16.9.5 and 172.16.4.4.
- D. It sends all traffic over the path via 172.16.4.4.

Answer: C

NEW QUESTION 520

- (Topic 4)

Refer to the exhibit.

```
SW1#show run
Building configuration...
!
hostname SW1
!
ip domain-name CCNA-test
!
username CCNA privilege 1 password 0 cisco123
!
interface FastEthernet0/1
  switchport access vlan 10
!
interface Vlan10
  ip address 192.168.1.2 255.255.255.0
!
line vty 0 4
  login local
  transport input telnet
line vty 5 15
  login local
  transport input telnet

SW1#show crypto key mypubkey rsa
% Key pair was generated at: 0:1:23 UTC Mar 1 2020
Key name: SW1.CCNA-test
```

An engineer is updating the management access configuration of switch SW1 to allow secured, encrypted remote configuration. Which two commands or command sequences must the engineer apply to the switch? (Choose two.)

- A. SW1(config)#enable secret cnaTest123
- B. SW1(config)#username NEW secret R3mote123
- C. SW1(config)#line vty 0 15 SW1(config-line)#transport input ssh
- D. SW1(config)# crypto key generate rsa
- E. SW1(config)# interface f0/1 SW1(config-if)# switchport mode trunk

Answer: CD

NEW QUESTION 525

DRAG DROP - (Topic 4)

Drag and drop the characteristic from the left onto the IPv6 address type on the right.

provides for one-to-one communication	Global Unicast Address
allows sites to be combined without address conflicts	
is a counterpart of private IPv4 addresses	Unique Local
is publicly routable in the same way as IPv4 addresses	

- A. Mastered
- B. Not Mastered

Answer: A

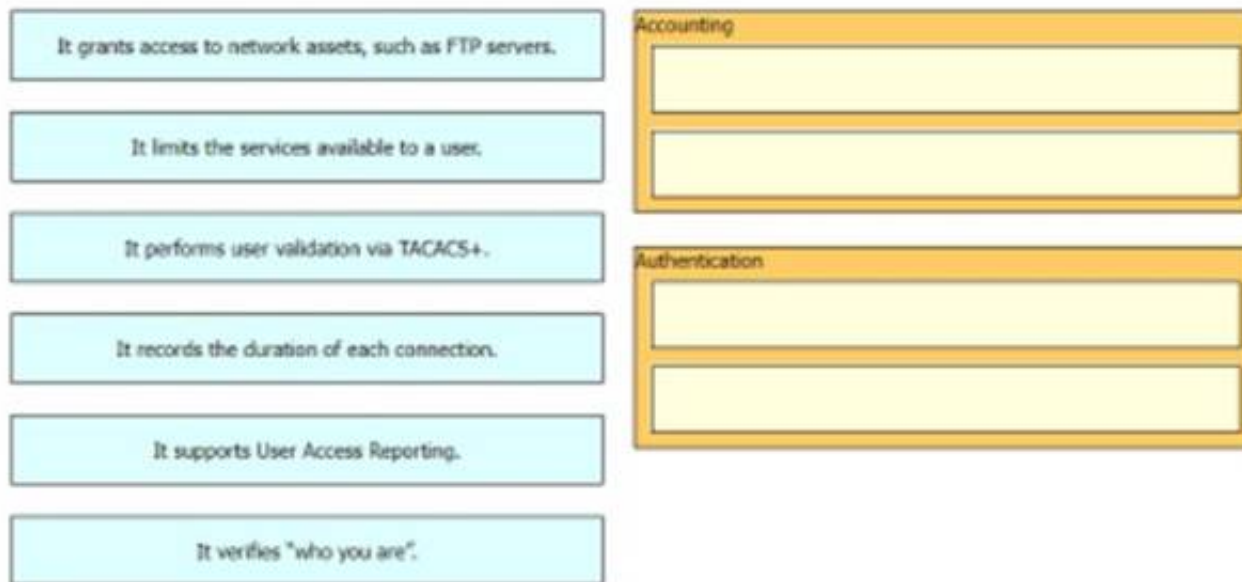
Explanation:



NEW QUESTION 527

DRAG DROP - (Topic 4)

Drag and drop the statements about AAA services from the left onto the corresponding AAA services on the right. Not all options are used.



- A. Mastered
- B. Not Mastered

Answer: A

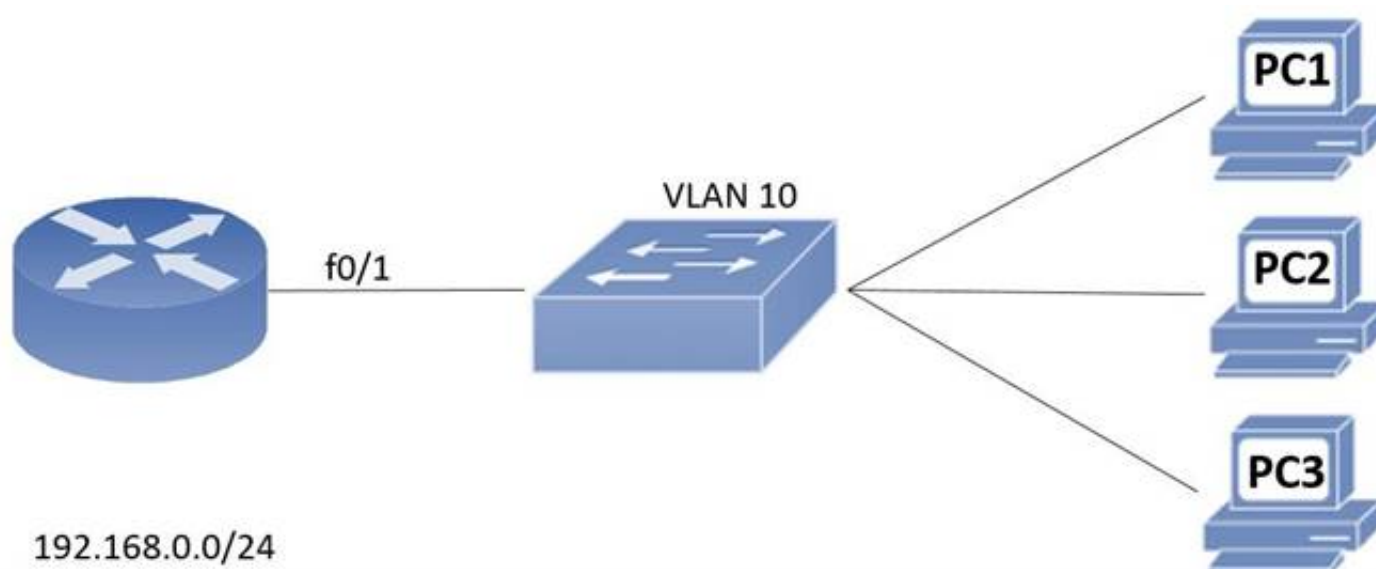
Explanation:

1&6 authentication 2&4 authorization

NEW QUESTION 531

- (Topic 4)

Refer to the exhibit.



An engineer assigns IP addressing to the current VLAN with three PCs. The configuration must also account for the expansion of 30 additional VLANs using the same Class C subnet for subnetting and host count. Which command set fulfills the request while reserving address space for the expected growth?

- A. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.252
- B. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.248
- C. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.0
- D. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255.255.255.128

Answer: B

NEW QUESTION 536

- (Topic 4)
What is a zero-day exploit?

- A. It is when a new network vulnerability is discovered before a fix is available
- B. It is when the perpetrator inserts itself in a conversation between two parties and captures or alters data.
- C. It is when the network is saturated with malicious traffic that overloads resources and bandwidth
- D. It is when an attacker inserts malicious code into a SOL server.

Answer: A

Explanation:

<https://www.kaspersky.com/resource-center/definitions/zero-day-exploit>

NEW QUESTION 540

- (Topic 4)
What are two examples of multifactor authentication? (Choose two.)

- A. single sign-on
- B. unique user knowledge
- C. passwords that expire
- D. soft tokens
- E. shared password responsibility

Answer: BD

NEW QUESTION 543

- (Topic 4)
Which type of address is shared by routers in a HSRP implementation and used by hosts on the subnet as their default gateway address?

- A. multicast address
- B. loopback IP address
- C. virtual IP address
- D. broadcast address

Answer: C

NEW QUESTION 544

DRAG DROP - (Topic 4)
Drag and drop the statement about AAA services from the left to the corresponding AAA services on the right.

It grants access to network assets, such as FTP servers.

It restricts the CLI commands that a user is able to perform.

It performs user validation via TACACS+.

It records the duration of each connection.

It supports User Access Reporting.

It verifies "who you are".

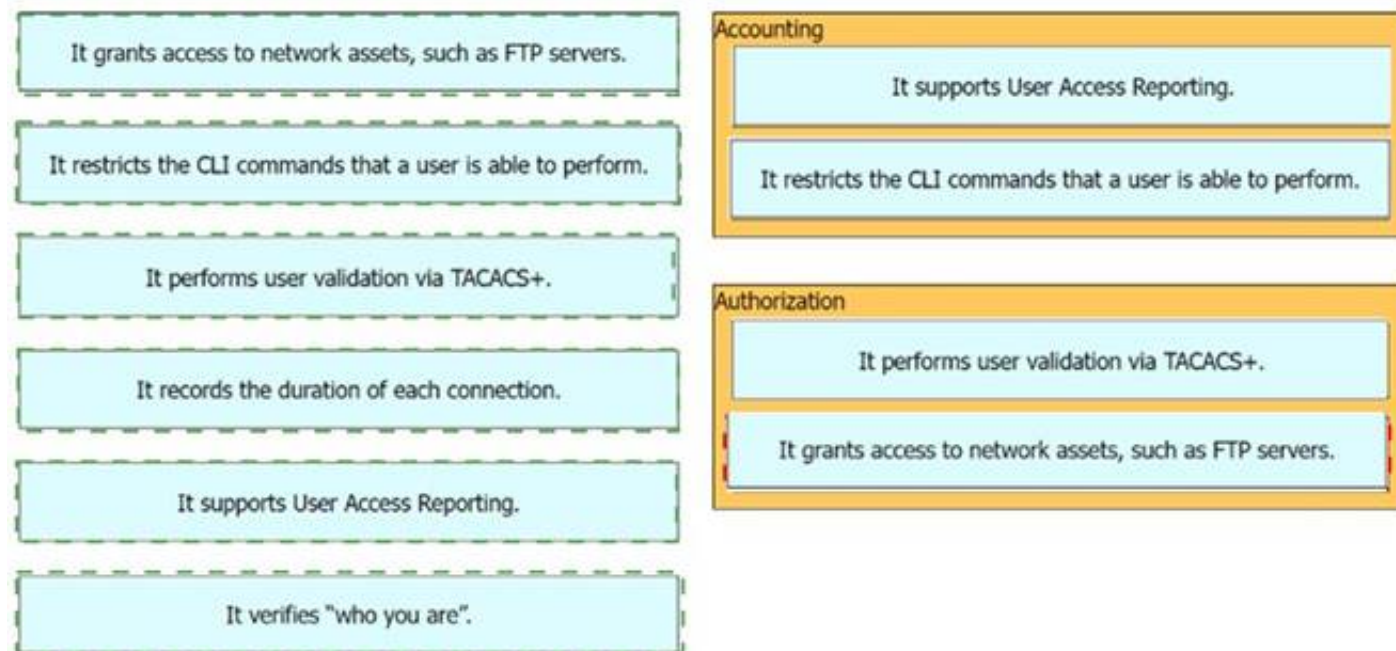
Accounting

Authorization

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 547

- (Topic 4)

What is the role of SNMP in the network?

- A. to monitor network devices and functions using a TCP underlay that operates on the presentation layer
- B. to collect data directly from network devices using an SSL underlay that operates on the transport layer
- C. to monitor and manage network devices using a UDP underlay that operates on the application layer
- D. to collect telemetry and critical information from network devices using an SSH underlay that operates on the network layer

Answer: C

NEW QUESTION 550

- (Topic 4)

What is the default port-security behavior on a trunk link?

- A. It causes a network loop when a violation occurs.
- B. It disables the native VLAN configuration as soon as port security is enabled.
- C. It places the port in the err-disabled state if it learns more than one MAC address.
- D. It places the port in the err-disabled slate after 10 MAC addresses are statically configured.

Answer: A

NEW QUESTION 554

- (Topic 4)

What is the functionality of the Cisco DNA Center?

- A. data center network pokey con
- B. console server that permits secure access to all network devices
- C. IP address cool distribution scheduler
- D. software-defined controller for automaton of devices and services

Answer: D

NEW QUESTION 559

- (Topic 4)

What are two capabilities provided by VRRP within a LAN network? (Choose two.)

- A. dynamic routing updates
- B. bandwidth optimization
- C. granular QoS
- D. load sharing
- E. redundancy

Answer: AC

Explanation:

Redundancy— VRRP enables you to configure multiple routers as the default gateway router, which reduces the possibility of a single point of failure in a network.
 Load Sharing—You can configure VRRP in such a way that traffic to and from LAN clients can be shared by multiple routers, thereby sharing the traffic load more equitably among available router

NEW QUESTION 563

- (Topic 4)

What are two protocols within the IPsec suite? (Choose two)

- A. AH
- B. 3DES

- C. ESP
- D. TLS
- E. AES

Answer: DE

NEW QUESTION 565

- (Topic 4)
Refer to the exhibit.

Output from R1

GigabitEthernet0/0/1 is up, line protocol is down
Hardware is SPA-10X1GE-V2, address is 0023.33ee.7c00 (bia 0023.33ee.7c00)
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Half Duplex, 1000Mbps, link type is auto, media type is LX
output flow-control is off, input flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:01, output 00:02:31, output hang never

10 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog, 314 multicast, 0 pause input
1 packets output, 77 bytes, 0 underruns
0 output errors, 50 collisions, 6 interface resets
17 unknown protocol drops
0 babbles, 0 late collision, 0 deferred

What is the issue with the interface GigabitEthernet0/0/1?

- A. Port security
- B. High throughput
- C. Cable disconnect
- D. duplex mismatch

Answer: C

NEW QUESTION 566

DRAG DROP - (Topic 4)
Drag and drop the Rapid PVST+ forwarding state actions from the left to the right. Not all actions are used.

BPDUs received are forwarded to the system module.

BPDUs received from the system module are processed and transmitted.

Frames received from the attached segment are discarded.

Frames received from the attached segment are processed.

Switched frames received from other ports are advanced.

The port in the forwarding state responds to network management messages.

action

action

action

action

- A. Mastered
- B. Not Mastered

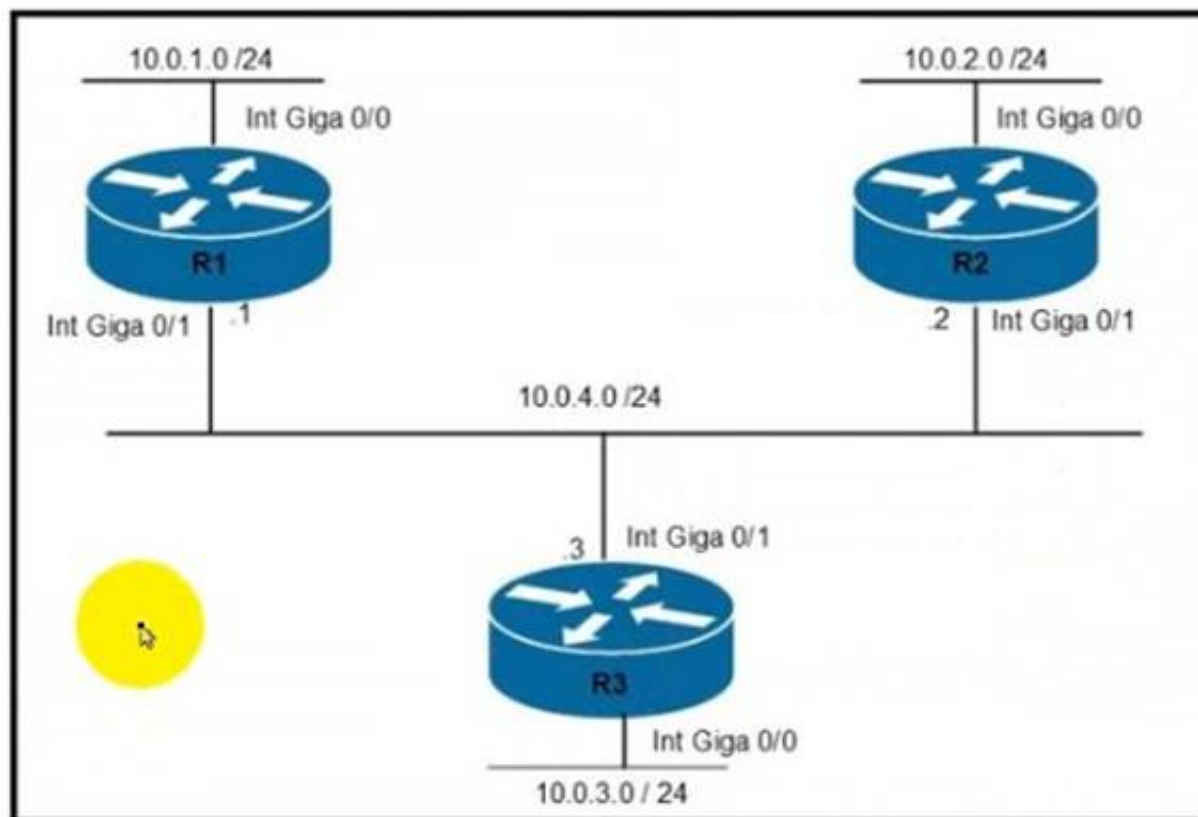
Answer: A

Explanation:

- * 1. BPDUs received are forwarded to the system module.
 - * 2. Frames received from the attached segment are processed.
 - * 3. Switched frames received from other ports are advanced.
 - * 4. The port in the forwarding state responds to network management messages.
- https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_config_gd_rel_503_N1_1_chapter9.html

NEW QUESTION 570

- (Topic 4)
Refer to the exhibit.



Router R1 must be configured to reach the 10.0.3.0/24 network from the 10.0.1.0/24 segment.
 Which command must be used to configure the route?

- A. ip route 10.0.3.0 0.255.255.255 10.0.4.2
- B. route add 10.0.3.0 mask 255.255.255.0 10.0.4.3
- C. Ip route 10.0.3.0 255.255.255.0 10.0.4.3
- D. route add 10.0.3.0 0.255.255.255 10.0.4.2

Answer: C

NEW QUESTION 572

- (Topic 4)

Which type of port is used to connect to the wired network when an autonomous AP maps two VLANs to its WLANs?

- A. LAG
- B. EtherChannel
- C. trunk
- D. access

Answer: C

NEW QUESTION 576

- (Topic 4)

Which remote access protocol provides unsecured remote CLI access?

- A. console
- B. Telnet
- C. Bash
- D. SSH

Answer: B

NEW QUESTION 578

- (Topic 4)

Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is not set
  172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
C    172.16.1.0/24 is directly connected, FastEthernet0/0
L    172.16.1.1/32 is directly connected, FastEthernet0/0
EX   172.16.2.0/24 [170/2] via 207.165.200.250, 00:00:25, Serial0/0/0
O    192.168.1.0/24 [110/84437] via 207.165.200.254, 00:00:17, Serial0/0/1
D    192.168.2.0/24 [90/184437] via 207.165.200.254, 00:00:15, Serial0/0/1
E1   192.168.3.0/24 [110/1851437] via 207.165.200.254, 00:00:19, Serial0/0/1
  207.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
C    207.165.200.248/30 is directly connected, Serial0/0/0
L    207.165.200.249/32 is directly connected, Serial0/0/0
C    207.165.200.252/30 is directly connected, Serial0/0/1
L    207.165.200.253/32 is directly connected, Serial0/0/1
```

Which prefix did router R1 learn from internal EIGRP?

- A. 192.168.10/24
- B. 192.168.3.0/24

C. 192.168.2.0/24
D. 172.16 1.0/24

Answer: C

NEW QUESTION 582

- (Topic 4)

Which command implies the use of SNMPv3?

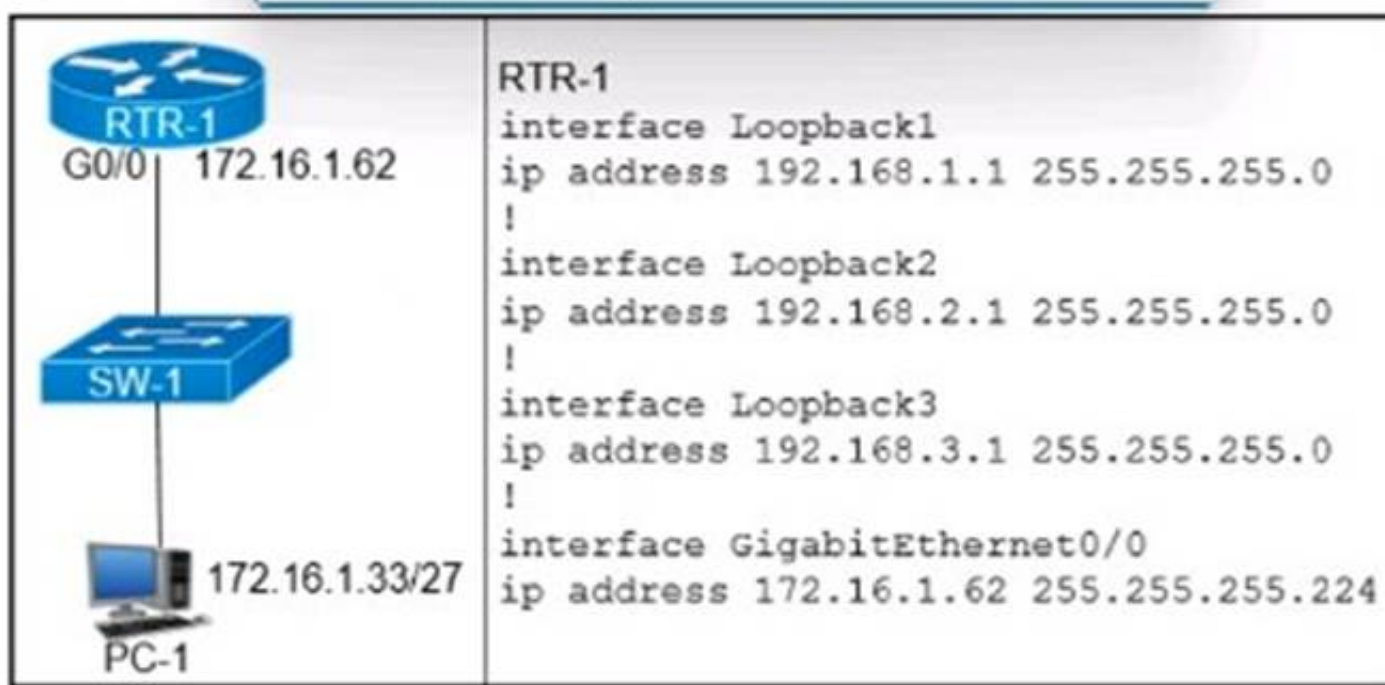
- A. snmp-server host
- B. snmp-server community
- C. snmp-server enable traps
- D. snmp-server user

Answer: B

NEW QUESTION 586

- (Topic 4)

Refer to the exhibit.



Which configuration for RTR-1 denies SSH access from PC-1 to any RTR-1 interface and allows all other traffic?

A)

```

access-list 100 deny tcp host 172.16.1.33 any eq 22
access-list 100 permit ip any any

```

```

interface GigabitEthernet0/0
ip access-group 100 in

```

B)

```

access-list 100 deny tcp host 172.16.1.33 any eq 22
access-list 100 permit ip any any

```

```

line vty 0 15
access-class 100 in

```

C)

```

access-list 100 deny tcp host 172.16.1.33 any eq 23
access-list 100 permit ip any any

```

```

Interface GigabitEthernet0/0
ip access-group 100 in

```

D)

```

access-list 100 deny tcp host 172.16.1.33 any eq 23
access-list 100 permit ip any any

```

```

line vty 0 15
access-class 100 in

```

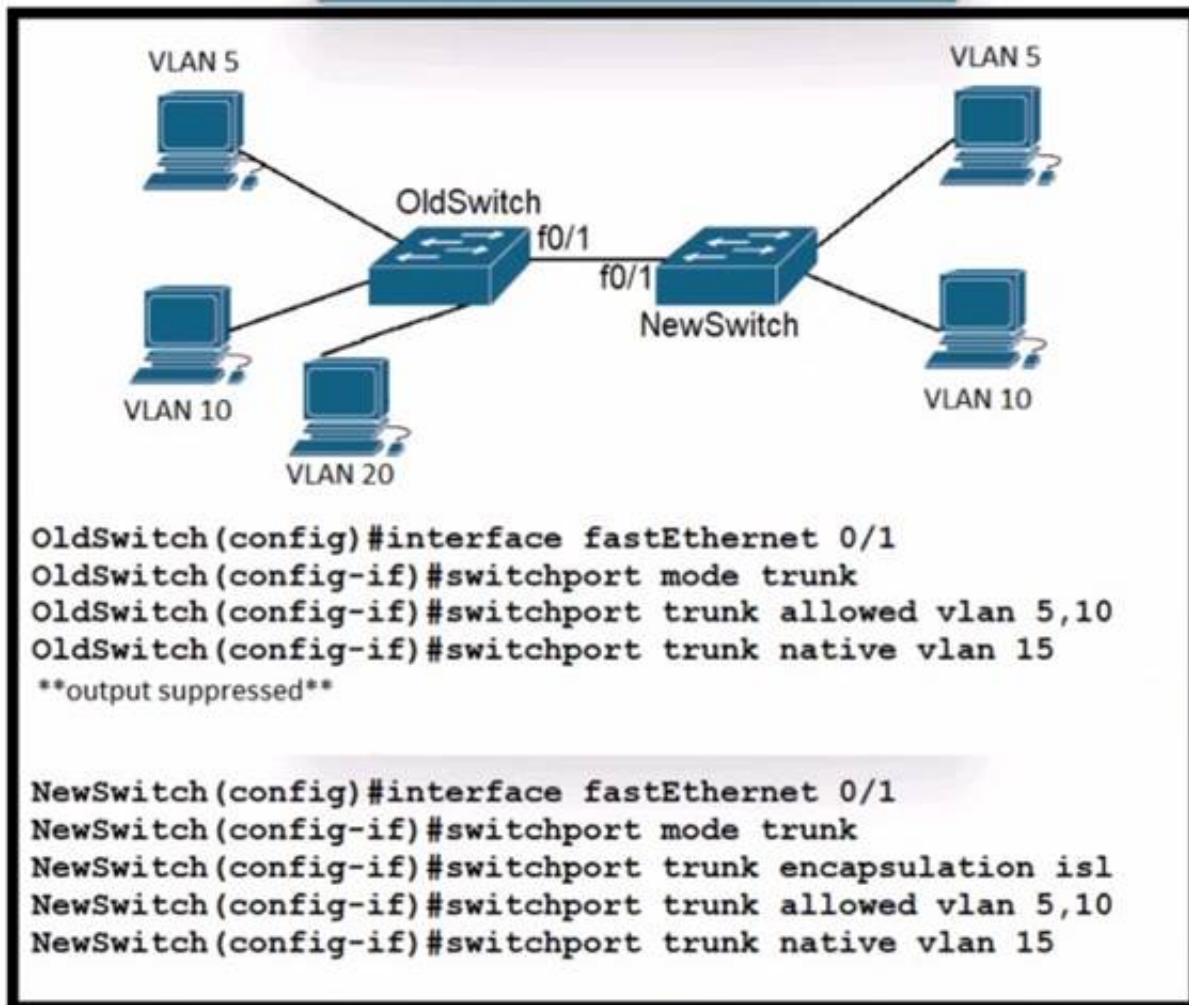
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 590

- (Topic 4)

Refer to the exhibit.



A new VLAN and switch are added to the network. A remote engineer configures OldSwitch and must ensure that the configuration meets these requirements:

- accommodates current configured VLANs
- expands the range to include VLAN 20
- allows for IEEE standard support for virtual LANs

Which configuration on the NewSwitch side of the link meets these requirements?

A)

```

no switchport trunk encapsulation isl
switchport trunk encapsulation dot1q
switchport trunk allowed vlan add 20
  
```

B)

```

switchport nonegotiate
no switchport trunk allowed vlan 5,10
switchport trunk allowed vlan 5,10,15,20
  
```

C)

```

no switchport mode trunk
switchport trunk encapsulation isl
switchport mode access vlan 20
  
```

D)

```

switchport mode dynamic
channel-group 1 mode active
switchport trunk allowed vlan 5,10,15, 20
  
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 594

DRAG DROP - (Topic 4)

Drag and drop the virtualization concepts from the left onto the matching statements on the right.

guest operating system	An operating system instance that is decoupled from the server hardware.
host operating system	Each core can run more than one process simultaneously.
hypervisor	Runs on a physical server, manages, and allocates the physical resources.
multithreading	The software that manages the basic functions of the physical hardware.
virtual machine	The software that manages the basic functions of the vital machine.

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

guest operating system	virtual machine
host operating system	multithreading
hypervisor	hypervisor
multithreading	guest operating system
virtual machine	host operating system

NEW QUESTION 596

- (Topic 4)

Which two protocols are used by an administrator for authentication and configuration on access points?

- A. Kerberos
 B. 802.1Q
 C. 802.1x
 D. TACACS+
 E. RADIUS

Answer: DE

NEW QUESTION 601

- (Topic 4)

An engineer is configuring switch SW1 to act an NTP server when all upstream NTP server connectivity fails. Which configuration must be used?

A)

```
SW1# config t
SW1(config)#ntp peer 192.168.1.1
SW1(config)#ntp access-group peer accesslist1
```

B)

```
SW1# config t
SW1(config)#ntp master
SW1(config)#ntp server 192.168.1.1
```

C)

```
SW1# config t
SW1(config)#ntp server 192.168.1.1
SW1(config)#ntp access-group server accesslist1
```

D)

SW1# config t
SW1(config)#ntp backup
SW1(config)#ntp server 192.168.1.1

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 602

DRAG DROP - (Topic 4)

Drag and drop the AAA terms from the left onto the descriptions on the right.

accounting	tracks activity
authentication	updates session attributes
authorization	verifies access rights
CoA	verifies identity

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

accounting	accounting
authentication	CoA
authorization	authorization
CoA	authentication

NEW QUESTION 604

- (Topic 4)

Refer to the exhibit.

10.223.2.2

PCA

G0/1 10.223.2.1

Router Y

G0/0 10.224.1.1

10.224.1.2 Router A

10.224.1.3 Router B

10.224.1.4 Router C

10.224.1.5 Router D

```
Router-Y#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, I - IISP
A - application route
+ - replicated route, % - next hop override, p - overrides from PFH

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted
S    10.0.0.0/8 [1/0] via 10.224.1.2
B    10.27.150.224/27 [20/0] via 10.224.1.3, 1w6d
S    10.128.0.0/9 [1/0] via 10.224.1.3
B    10.224.0.0/11 [20/0] via 10.224.1.5, 5d18h
B    10.224.0.0/15 [20/0] via 10.224.1.4, 5d18h
C    10.223.0.0/24 is directly connected, GigabitEthernet0/1
C    10.224.0.0/24 is directly connected, GigabitEthernet0/0
B    10.226.34.0/24 [20/0] via 10.224.1.5, 5d18h
```

PC A is communicating with another device at IP address 10.227.225.255. Through which router does router Y route the traffic?

- A. router A
- B. router B
- C. router C
- D. router D

Answer: C

NEW QUESTION 605

- (Topic 4)

Which two practices are recommended for an acceptable security posture in a network? (Choose two)

- A. Backup device configurations to encrypted USB drives for secure retrieval
- B. maintain network equipment in a secure location
- C. Use a cryptographic keychain to authenticate to network devices
- D. Place internal email and file servers in a designated DMZ
- E. Disable unused or unnecessary ports, interfaces and services

Answer: CE

NEW QUESTION 608

- (Topic 4)

What are two advantages of implementing a controller-based architecture instead of a traditional network architecture? (Choose two.)

- A. It allows for seamless connectivity to virtual machines.
- B. It supports complex and high-scale IP addressing schemes.
- C. It enables configuration task automation.
- D. It provides increased scalability and management options.
- E. It increases security against denial-of-service attacks.

Answer: CD

NEW QUESTION 611

DRAG DROP - (Topic 4)

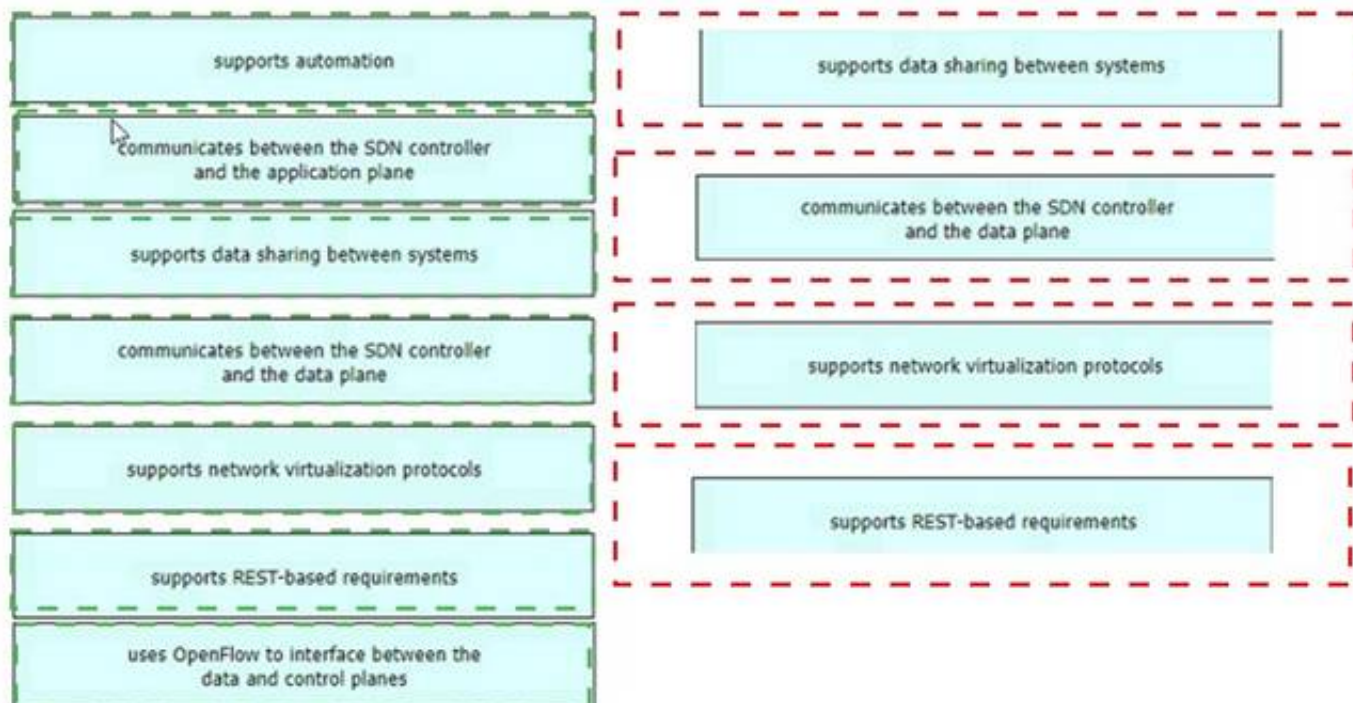
Drag and drop the characteristics of northbound APIs from the left onto any position on the right. Not all characteristics are used.

supports automation
communicates between the SDN controller and the application plane
supports data sharing between systems
communicates between the SDN controller and the data plane
supports network virtualization protocols
supports REST-based requirements
uses OpenFlow to interface between the data and control planes

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 612

- (Topic 4)

What are two functions of DHCP servers? (Choose two.)

- A. prevent users from assigning their own IP addresses to hosts
- B. assign dynamic IP configurations to hosts in a network
- C. support centralized IP management
- D. issue DHCPDISCOVER messages when added to the network
- E. respond to client DHCPOFFER requests by issuing an IP address

Answer: BC

NEW QUESTION 613

- (Topic 4)

Refer to the exhibit.

```

R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate default
       U - per-user static route, o - ODR
Gateway of last resort is not set
C    172.16.0.0/16 is directly connected, Loopback0
     172.16.0/16 is variably subnetted, 4 subnets, 2 masks
O    172.16.1.3/32 [110/100] via 192.168.7.40, 00:39:08, Serial0
C    172.16.1.0/24 is directly connected, Serial0
O    172.16.1.184/29 [110/5] via 192.168.7.35, 00:39:08, Serial0
O    172.16.3.0/24 [110/10] via 192.168.7.4, 00:39:08, Gigabit Ethernet 0/0
D    172.16.1.0/28 [90/10] via 192.168.7.7, 00:39:08, Gigabit Ethernet 0/0
    
```

Load-balanced traffic is coming in from the WAN destined to a host at 172.16.1.190. Which next-hop is used by the router to forward the request?

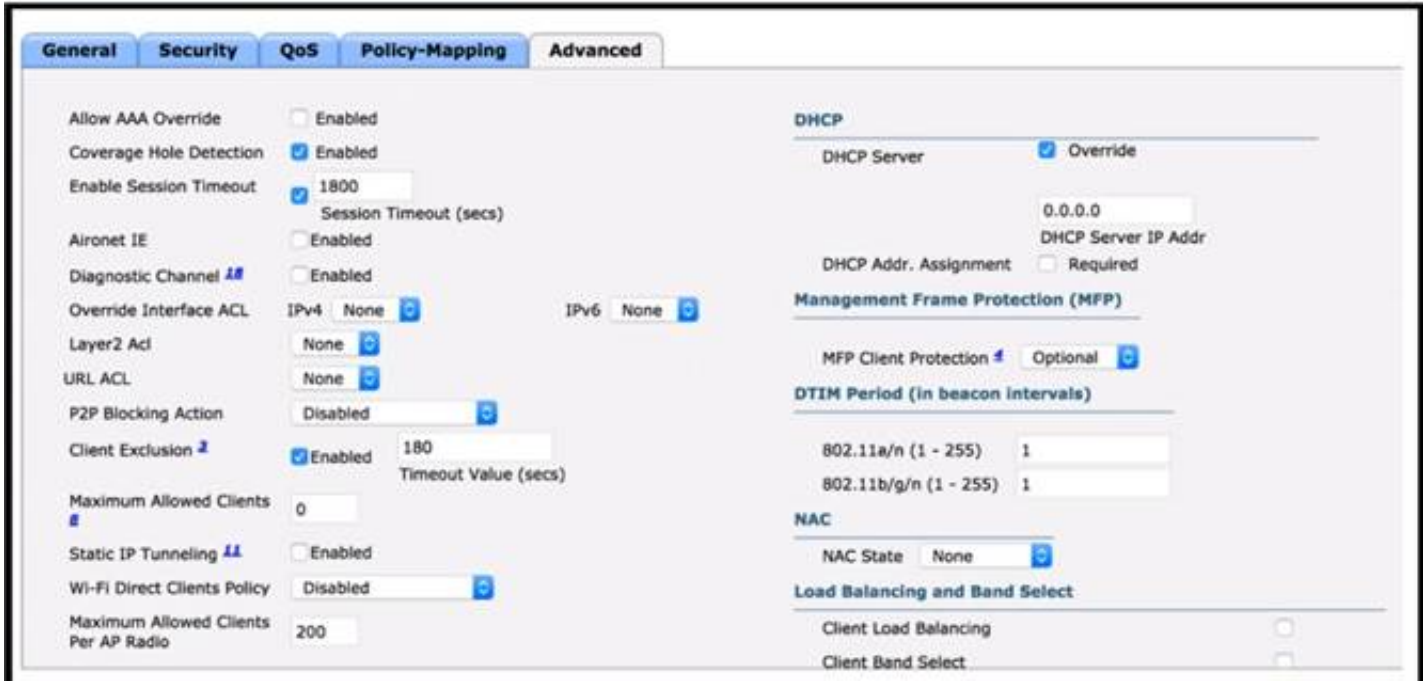
- A. 192.168.7.4
- B. 192.168.7.7
- C. 192.168.7.35
- D. 192.168.7.40

Answer: D

NEW QUESTION 617

- (Topic 4)

Refer to the exhibit.



The P2P blocking action option is disabled on the WLC.

- A. Enable the Static IP Tunneling option.
- B. Disable the Coverage Hole Detection option.
- C. Check the DHCP Add
- D. Assignment check box.
- E. Set the P2P Blocking Action option to Forward-UpStream.

Answer: A

NEW QUESTION 619

DRAG DROP - (Topic 4)

Drag and drop the statements about networking from the left onto the corresponding networking types on the right

This type implements changes individually at each device.

This type leverages controllers to handle network management.

Maintenance costs are higher than with other networking options.

This type provides a centralized view of the network.

Traditional Networking

Controller-Based Networking

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

This type implements changes individually at each device.

This type leverages controllers to handle network management.

Maintenance costs are higher than with other networking options.

This type provides a centralized view of the network.

Traditional Networking

This type implements changes individually at each device.

Maintenance costs are higher than with other networking options.

Controller-Based Networking

This type leverages controllers to handle network management.

This type provides a centralized view of the network.

NEW QUESTION 622

- (Topic 4)

Which two transport layer protocols carry syslog messages? (Choose two.)

- A. TCP
- B. IP

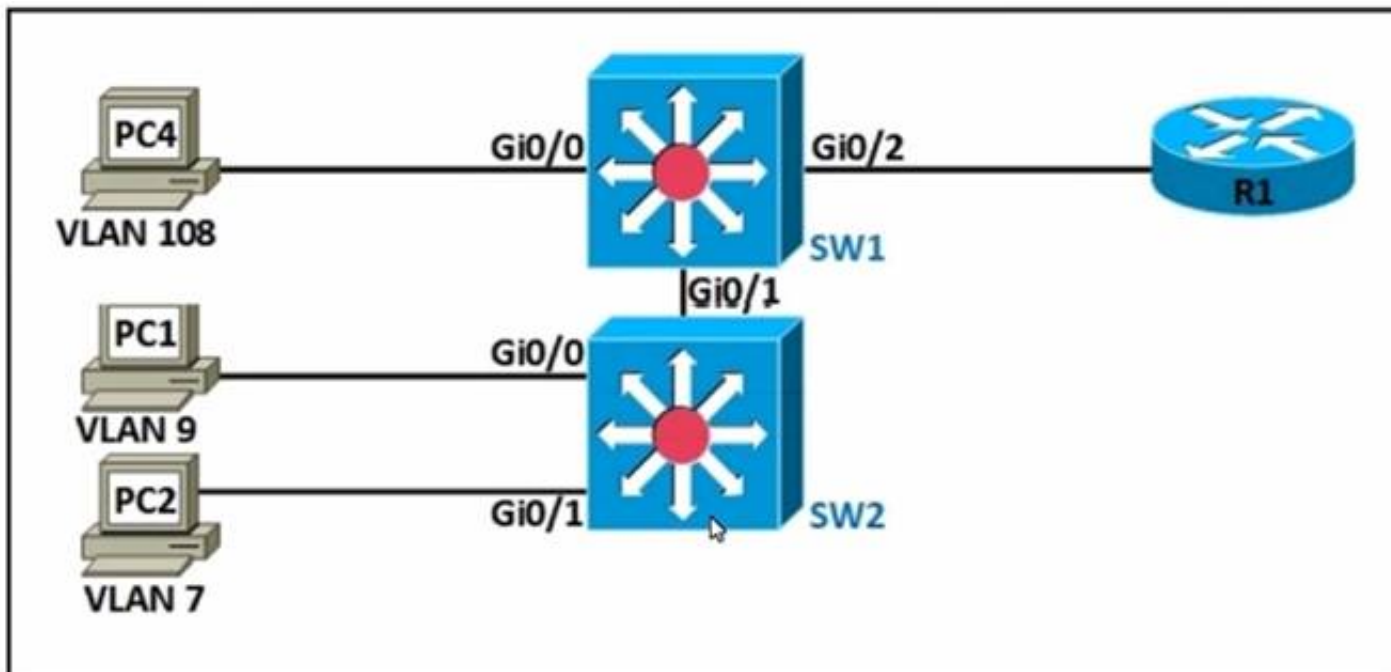
- C. RTP
- D. UDP
- E. ARP

Answer: AD

NEW QUESTION 624

- (Topic 4)

Refer to the exhibit.



The SW1 and SW2 Gi0/0 ports have been preconfigured. An engineer is given these requirements:

- Allow all PCs to communicate with each other at Layer 3.
- Configure untagged traffic to use VLAN 5.
- Disable VLAN 1 from being used.

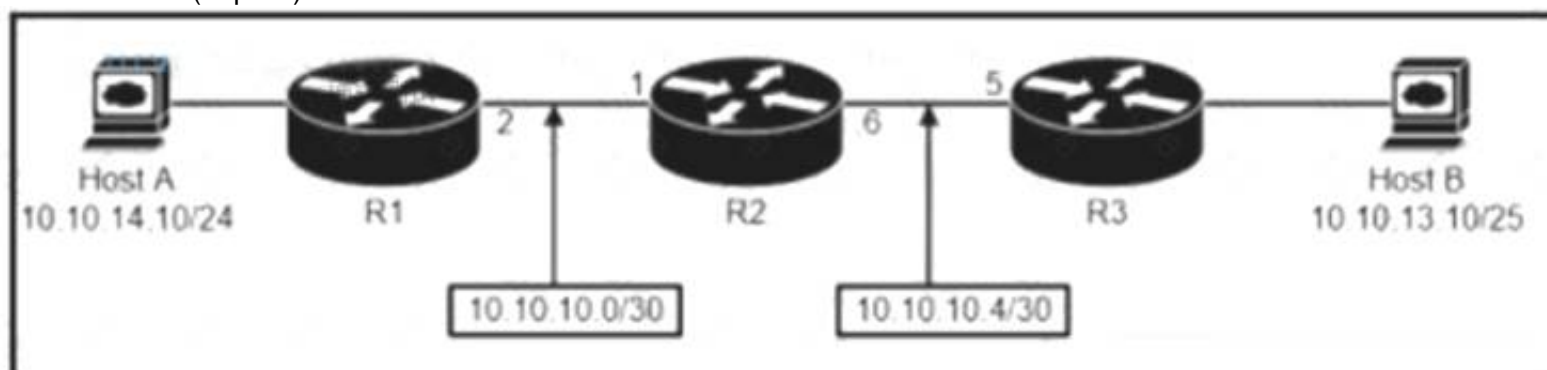
Which configuration set meets these requirements?

- A. SW1#interface Gi0/1 switchport mode trunkswitchport trunk allowed vlan 5,7,9,108 switchport trunk native vlan 5 interface Gi0/2 switchport mode trunkswitchport trunk allowed vlan 5,7,9,108 SW2#interface Gi0/1 switchport mode access switchport access vlan 7 interface Gi0/7 switchport mode trunkswitchport trunk allowed vlan 7,9,108
- B. SW1#interface Gi0/1 switchport mode trunkswitchport trunk allowed vlan 5,7,9,108 switchport trunk native vlan 5 interface Gi0/2 switchport mode accessswitchport trunk allowed vlan 7,9,108 SW2#interface Gi0/1 switchport mode accessno switchport access vlan 1 switchport access vlan 7 interface Gi0/7switchport mode trunkswitchport trunk allowed vlan 7,9,108 switchport trunk native vlan 5
- C. SW#1 -interface Gi0/1 switchport mode trunkswitchport trunk allowed vlan 5,7,9,108 switchport trunk native vlan 5 interface Gi0/2 switchport mode trunkswitchport trunk allowed vlan 5,7,9,108 SW2#interface Gi0/1 switchport mode access switchport access vlan 7 interface Gi0/7 switchport mode trunkswitchport trunk allowed vlan 5,7,9,108 switchport trunk native vlan 5
- D. SW1#interface Gi0/1 switchport mode trunkswitchport trunk allowed vian 5,7,9,108 interface Gi0/2switchport mode trunkswitchport trunk allowed vlan 7,9,108 SW2#interface Gi0/1 switchport mode trunkswitchport trunk allowed vlan 7 interface Gi0/7switchport mode trunkswitchport trunk allowed vlan 5,7,9,108

Answer: C

NEW QUESTION 627

DRAG DROP - (Topic 4)



Refer to the exhibit. An engineer must configure a static network route between two networks so that host A communicates with host B. Drag and drop the commands from the left onto the routers where they must be configured on the right. Not all commands are used.

ip route 10.10.13.0 255.255.255.128 10.10.10.1

ip route 10.10.13.0 255.255.255.128 10.10.10.5

ip route 10.10.13.10 255.255.255.255 10.10.10.1

ip route 10.10.14.0 255.255.255.0 10.10.10.2

ip route 10.10.14.0 255.255.255.0 10.10.10.6

ip route 10.10.14.10 255.255.255.255 10.10.10.6

R1

R2

R3

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

ip route 10.10.13.0 255.255.255.128 10.10.10.1

ip route 10.10.13.0 255.255.255.128 10.10.10.5

ip route 10.10.13.10 255.255.255.255 10.10.10.1

ip route 10.10.14.0 255.255.255.0 10.10.10.2

ip route 10.10.14.0 255.255.255.0 10.10.10.6

ip route 10.10.14.10 255.255.255.255 10.10.10.6

R1

ip route 10.10.13.10 255.255.255.255 10.10.10.1

R2

ip route 10.10.13.0 255.255.255.128 10.10.10.5

ip route 10.10.14.0 255.255.255.0 10.10.10.2

R3

ip route 10.10.14.0 255.255.255.0 10.10.10.6

NEW QUESTION 630

- (Topic 4)
What is a specification for SSIDS?

- A. They are a Cisco proprietary security feature.
- B. They must include one number and one letter.
- C. They define the VLAN on a switch.
- D. They are case sensitive.

Answer: B

NEW QUESTION 634

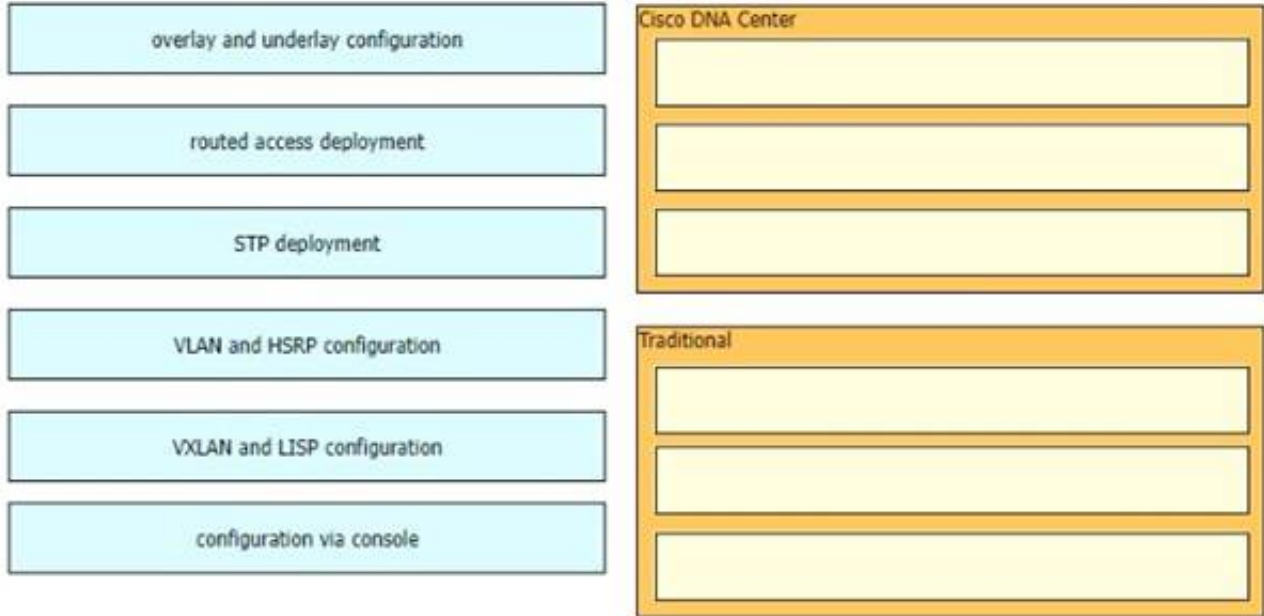
- (Topic 4)
A Cisco engineer notices that two OSPF neighbors are connected using a crossover Ethernet cable. The neighbors are taking too long to become fully adjacent. Which command must be issued under the interface configuration on each router to reduce the time required for the adjacency to reach the FULL state?

- A. ip ospf network broadcast
- B. ip ospf dead-interval 40
- C. ip ospf network point-to-point
- D. ip ospf priority 0

Answer: C

NEW QUESTION 637

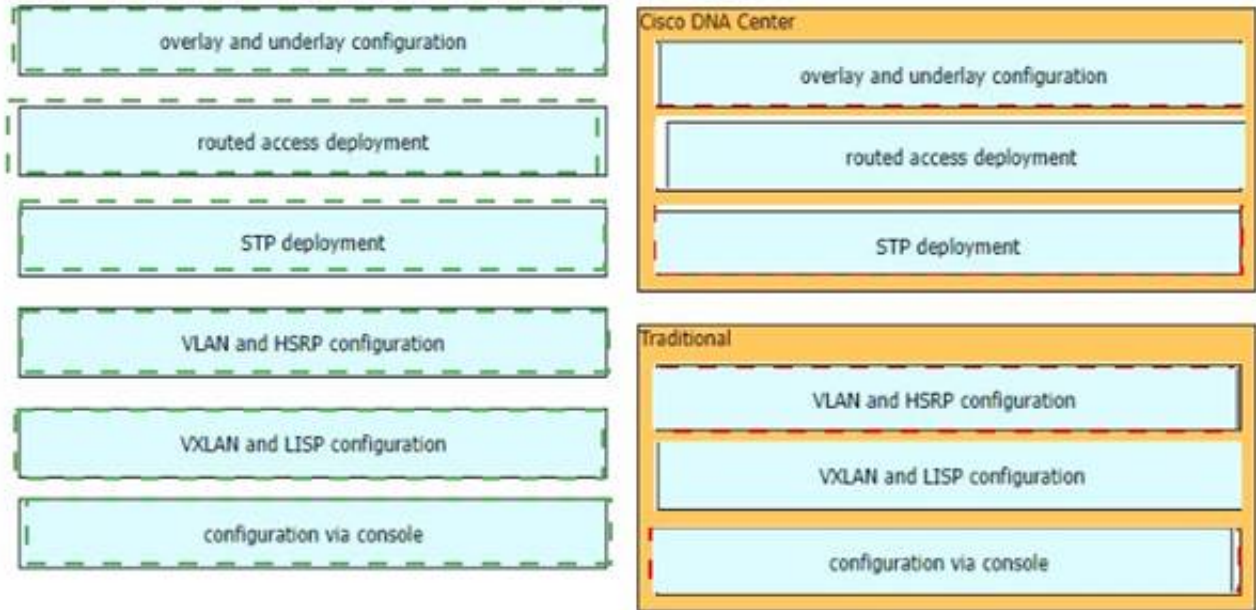
DRAG DROP - (Topic 4)
Drag and drop the use cases for device-management technologies from the left onto the corresponding.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 639

- (Topic 4)
What are two features of the DHCP relay agent? (Choose two.)

- A. assigns DNS locally and then forwards request to DHCP server
- B. permits one IP helper command under an individual Layer 3 interface
- C. allows only MAC-to-IP reservations to determine the local subnet of a client
- D. minimizes the necessary number of DHCP servers
- E. configured under the Layer 3 interface of a router on the client subnet

Answer: BE

NEW QUESTION 642

- (Topic 4)
Refer to the exhibit.

Entry #	
1	192.168.10.0 255.255.254.0
2	192.168.10.0 255.255.255.192
3	192.168.10.0 255.255.0.0
4	192.168.10.0 255.255.224.0

Which entry is the longest prefix match for host IP address 192.168.10.5?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: B

NEW QUESTION 643

- (Topic 4)

When the LAG configuration is updated on a Cisco WLC which additional task must be performed when changes are complete?

- A. Flush all MAC addresses from the WLC
- B. Re-associate the WLC with the access point.
- C. Re-enable the WLC interfaces
- D. Reboot the WLC

Answer: C

NEW QUESTION 647

- (Topic 4)

Refer to the exhibit.

```
{
  "myCar": {
    "name": "thunder",
    "wheels": ["good", "good", "pressureLow", "warning"],
    "gasLight": false
  },
  "oldCar": {
    "name": "sleepy",
    "wheels": ["pressureLow", "pressureLow", "pressureLow", "pressureLow"],
    "color": "rust",
    "gasLight": true
  },
  "newCar": {
    "name": "lightning",
    "wheels": ["pressureLow", "good", "pressureLow", "good"],
    "color": "blue",
    "gasLight": true
  }
}
```

In which structure does the word "warning" directly reside?

- A. array
- B. object
- C. Boolean
- D. string

Answer: A

NEW QUESTION 648

- (Topic 4)

Refer to the exhibit.

```
Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.1.1.0/30 is directly connected, GigabitEthernet0/0
L    10.1.1.2/32 is directly connected, GigabitEthernet0/0
S    192.168.0.0/20 [1/0] via 10.1.1.1
     192.168.1.0/30 is subnetted, 1 subnets
S    192.168.1.0/30 [1/0] via 10.1.1.1
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
S    192.168.2.0/28 [1/0] via 10.1.1.1
S    192.168.2.0/29 [1/0] via 10.1.1.1
```

An engineer is checking the routing table in the main router to identify the path to a server on the network. Which route does the router use to reach the server at 192.168.2.2?

- A. S 192.168.0.0/20 [1/0] via 10.1.1.1
- B. S 192.168.2.0/29 [1/0] via 10.1.1.1
- C. S 192.168.2.0/28 [1/0] via 10.1.1.1
- D. S 192.168.1.0/30 [1/0] via 10.1.1.1

Answer: B

NEW QUESTION 650

- (Topic 4)

```
Cat9300-1# show interface gi1/0/1 switchport
Name: Gi1/0/1
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 321 (VLAN0321)
Administrative Native VLAN tagging: enabled
Trunking VLANs Enabled: 100,200,300
Pruning VLANs Enabled: 2-1001
```

Refer to the exhibit.

A network administrator configures an interface control re switch so that it connects to interface Gi1/0/1 on switch Cat9300-1. Which configuration must be applied to the new interface?

A)

```
switchport mode trunk
switchport trunk native vian 321
switchport trunk allowed vian 100,200,300
```

B)

```
switchport trunk encapsulation dot1q
switchport trunk native vian 321
switchport trunk allowed vian 100-300
```

C)

```
switchport mode dynamic desirable
switchport trunk native vian 321
switchport trunk allowed vian 100,200,300
```

D)

```
switchport nonegotiate
switchport access vian 321
switchport trunk allowed vian except 2-1001
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 655

- (Topic 4)

Two switches have been implemented and all interfaces are at the default configuration level. A trunk link must be implemented between two switches with these requirements:

- using an industry-standard trunking protocol
- permitting VLANs 1 -10 and denying other VLANs

How must the interconnecting ports be configured?

A)

```
switchport mode dynamic
channel-protocol lacp
switchport trunk allowed vlans 1-10
```

B)

```
switchport mode trunk
switchport trunk encapsulation dot1q
switchport trunk allowed vlans 1-10
```

C)

switchport mode trunk
switchport trunk allowed vlans 1-10
switchport trunk native vlan 11

D)

switchport mode dynamic desirable
channel-group 1 mode desirable
switchport trunk encapsulation isl
switchport trunk allowed vlan except 11-4094

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 658

- (Topic 4)
Which signal frequency appears 60 times per minute?

- A. 1 Hz signal
- B. 1 GHz signal
- C. 60 Hz signal
- D. 60 GHz signal

Answer: B

NEW QUESTION 661

DRAG DROP - (Topic 4)
Drag and drop the wireless architecture benefits from the left onto the architecture types on the right.
Drag and drop the wireless architecture benefits from the left onto the architecture types on the right.

Appropriate for a small-business environment.

Work is divided between the access point and the controller.

The access points transmit beacon frames.

Supports per device configuration and management.

Uses the CAPWAP tunneling protocol.

Split-MAC

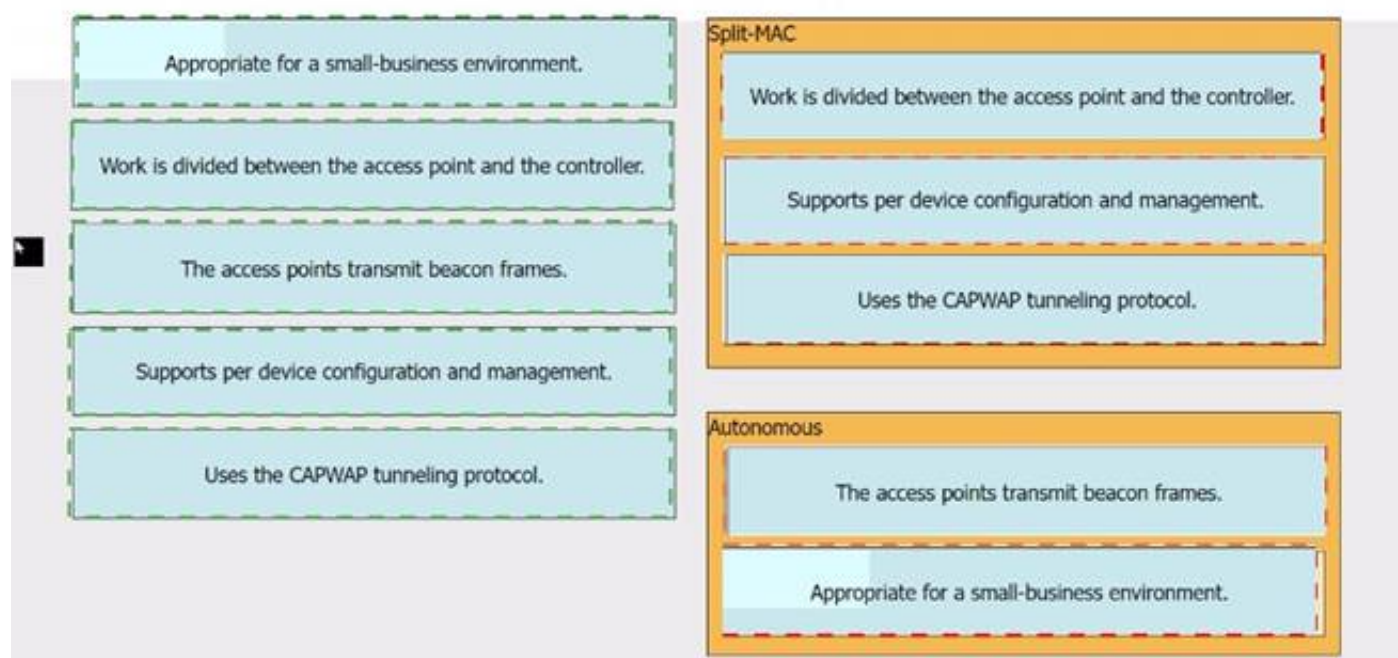
Autonomous

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Drag and drop the wireless architecture benefits from the left onto the architecture types on the right.



NEW QUESTION 666

- (Topic 4)

What is a purpose of traffic shaping?

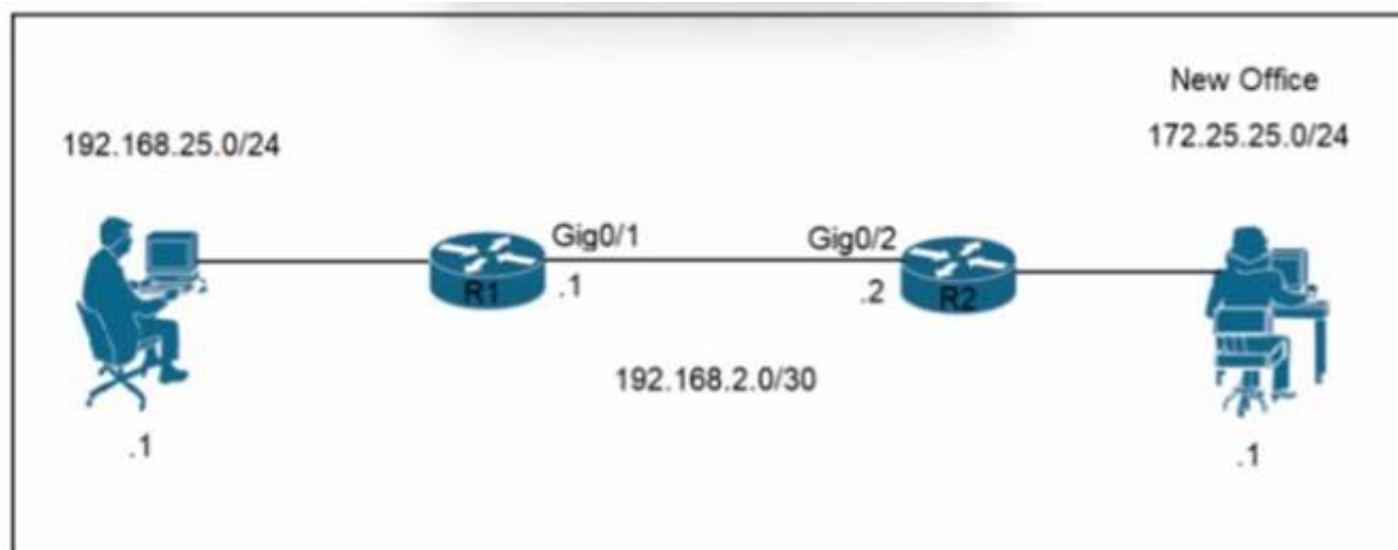
- A. It enables dynamic flow identification.
- B. It enables policy-based routing.
- C. It provides best-effort service.
- D. It limits bandwidth usage.

Answer: A

NEW QUESTION 669

- (Topic 4)

Refer to the exhibit.



A network engineer is updating the configuration on router R1 to connect a new branch office to the company network R2 has been configured correctly. Which command must the engineer configure so that devices at the new site communicate with the main office?

- A. ip route 172.25.25 0 255 255 255.0 192.168.2.1
- B. ip route 172.25.25 1 255 255 255 255 g0/1
- C. ip route 172.25.25.0.255.255.255.0.192.168.2.2

Answer: C

NEW QUESTION 673

- (Topic 4)

What is a benefit of a point-to-point leased line?

- A. flexibility of design
- B. simplicity of configurator
- C. low cost
- D. full-mesh capability

Answer: B

NEW QUESTION 674

- (Topic 4)

Which properly is shared by 10GBase-SR and 10GBase-LR interfaces?

- A. Both require fiber cable media for transmission.
- B. Both require UTP cable media for transmission.
- C. Both use the single-mode fiber type.
- D. Both use the multimode fiber type.

Answer: A

NEW QUESTION 679

- (Topic 4)

Refer to the exhibit.

```

Connection-specific DNS Suffix . :
Description . . . . . : Intel(R) Ethernet Connection (2) I218-V
Physical Address. . . . . : D0-50-99-47-A9-7F
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::8809:9772:c583:6b18%15 (Preferred)
IPv4 Address. . . . . : 192.168.69.132 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Thursday, January 21, 2021 11:10:46 PM
Lease Expires . . . . . : Wednesday, February 3, 2021 11:27:29 AM
Default Gateway . . . . . : 192.168.69.1
DHCP Server . . . . . : 192.168.69.1
DHCPv6 IAID . . . . . : 231755929
DHCPv6 Client DUID. . . . . : 00-01-00-01-26-D7-BB-3F-D0-50-99-47-A9-7F
DNS Servers . . . . . : 192.168.69.1
NetBIOS over Tcpip. . . . . : Enabled
  
```

What does the host do when using the IPv4 Preferred function?

- A. It continues to use a statically assigned IPv4 address
- B. It forces the DNS server to provide the same IPv4 address at each renewal.
- C. It requests the same IPv4 address when it renews its lease with the DHCP server.
- D. It prefers a pool of addresses when renewing the IPv4 host IP address

Answer: C

NEW QUESTION 682

- (Topic 4)

Refer to the exhibit.



An architect is managing a wireless network with APs from several branch offices connecting to the WLC in the data center. There is a new requirement for a single WLAN to process the client data traffic without sending it to the WLC. Which action must be taken to complete the request?

- A. Enable local HTTP profiling.
- B. Enable Disassociation Imminent.
- C. Enable FlexConnect Local Switching.
- D. Enable local DHCP Profiling.

Answer: C

NEW QUESTION 684

- (Topic 4)

Under which condition is TCP preferred over UDP?

- A. UDP is used when low latency is optimal, and TCP is used when latency is tolerable.
- B. TCP is used when dropped data is more acceptable, and UDP is used when data is accepted out- of-order.
- C. TCP is used when data reliability is critical, and UDP is used when missing packets are acceptable.
- D. UDP is used when data is highly interactive, and TCP is used when data is time- sensitive.

Answer: C

NEW QUESTION 685

.....

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