

Exam Questions 200-301

Cisco Certified Network Associate

<https://www.2passeasy.com/dumps/200-301/>



NEW QUESTION 1

- (Exam Topic 2)

Refer to the exhibit.

```
Designated Router (ID) 10.11.11.11, Interface address 10.10.10.1
Backup Designated router (ID) 10.3.3.3, Interface address 10.10.10.3
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
oob-resync timeout 40
Hello due in 00:00:08
Supports Link-local Signaling (LLS)
Cisco NSF helper support enabled
IETF NSF helper support enabled
Index 1/1/1, flood queue length 0
Next 0x0(0)/0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 6
Last flood scan time is 0 msec, maximum is 1 msec
Neighbor Count is 3, Adjacent neighbor count is 3
Adjacent with neighbor 10.1.1.4
Adjacent with neighbor 10.2.2.2
Adjacent with neighbor 10.3.3.3 (Backup Designated Router)
Suppress hello for 0 neighbor(s)
```

The show ip ospf interface command has been executed on R1. How is OSPF configured?

- A. The interface is not participating in OSPF
- B. A point-to-point network type is configured
- C. The default Hello and Dead timers are in use
- D. There are six OSPF neighbors on this interface

Answer: C**Explanation:**<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13689-17.html>**NEW QUESTION 2**

- (Exam Topic 2)

Refer to the exhibit.

```
Switch(config)#hostname R1
R1(config)#interface FastEthernet0/1
R1(config-if)#no switchport
R1(config-if)#ip address 10.100.20.42 255.255.255.0
R1(config-if)#line vty 0 4
R1(config-line)#login
```

An engineer booted a new switch and applied this configuration via the console port. Which additional configuration must be applied to allow administrators to authenticate directly to enable privilege mode via Telnet using a local username and password?

- R1(config)#username admin privilege 15 secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local
- R1(config)#username admin secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local
R1(config)#enable secret p@ss1234
- R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234
R1(config-line)#transport input telnet
- R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234

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

Answer: A

NEW QUESTION 3

- (Exam Topic 2)

Refer to Exhibit.

```
SW2
vtp domain cisco
vtp mode transparent
vtp password ciscotest
interface fastethernet0/1
  description connection to sw1
  switchport mode trunk
  switchport trunk encapsulation dot1q
```

How does SW2 interact with other switches in this VTP domain?

- A. It processes VTP updates from any VTP clients on the network on its access ports.
- B. It receives updates from all VTP servers and forwards all locally configured VLANs out all trunk ports
- C. It forwards only the VTP advertisements that it receives on its trunk ports.
- D. It transmits and processes VTP updates from any VTP Clients on the network on its trunk ports

Answer: C

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/lan-switching/vtp/10558-21.html>

The VTP mode of SW2 is transparent so it only forwards the VTP updates it receives to its trunk links without processing them.

NEW QUESTION 4

- (Exam Topic 2)

Where does a switch maintain DHCP snooping information?

- A. in the MAC address table
- B. in the CAM table
- C. in the binding database
- D. in the frame forwarding database

Answer: C

NEW QUESTION 5

- (Exam Topic 2)

Router A learns the same route from two different neighbors, one of the neighbor routers is an OSPF neighbor and the other is an EIGRP neighbor. What is the administrative distance of the route that will be installed in the routing table?

- A. 20
- B. 90
- C. 110
- D. 115

Answer: B

Explanation:

The Administrative distance (AD) of EIGRP is 90 while the AD of OSPF is 110 so EIGRP route will be chosen to install into the routing table.

NEW QUESTION 6

- (Exam Topic 2)

Which command must be entered when a device is configured as an NTP server?

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

Answer: D

Explanation:

To configure a Cisco device as an Authoritative NTP Server, use the ntp master [stratum] command. To configure a Cisco device as a NTP client, use the command ntp server <IP address>. For example: Router(config)#ntp server 192.168.1.1. This command will instruct the router to query 192.168.1.1 for the time.

NEW QUESTION 7

- (Exam Topic 2)

Which set of action satisfy the requirement for multifactor authentication?

- A. The user swipes a key fob, then clicks through an email link
- B. The user enters a user name and password, and then clicks a notification in an authentication app on a mobile device
- C. The user enters a PIN into an RSA token, and then enters the displayed RSA key on a login screen
- D. The user enters a user name and password and then re-enters the credentials on a second screen

Answer: B

Explanation:

This is an example of how two-factor authentication (2FA) works: 1. The user logs in to the website or service with their username and password. 2. The password is validated by an authentication server and, if correct, the user becomes eligible for the second factor. 3. The authentication server sends a unique code to the user's second-factor method (such as a smartphone app). 4. The user confirms their identity by providing the additional authentication for their second-factor method.

NEW QUESTION 8

- (Exam Topic 2)

Refer to the exhibit.

```
Switch1#show etherchannel summary
Flags: D - down          P - in port-channel
       I - stand-alone  s - suspended
       H - Hot-standby (LACP only)
       R - Layer3       S - Layer2
       U - in use       f - failed to allocate aggregator
       u - unsuitable for bundling
       w - waiting to be aggregated
       d - default port

Number of channel-groups in use: 1
Number of aggregators:          1
Group  Port-channel  Protocol    Ports
-----+-----+-----+-----
 1      Po1 (SD)          LACP        Fa0/2 (I) Fa0/1 (I)

Switch1#show run
Building configuration...
interface Port-channel1
!
interface FastEthernet0/1
 channel-group 1 mode passive
!
interface FastEthernet0/2
 channel-group 1 mode passive

Switch2#show run
Building configuration...
interface Port-channel1
!
interface FastEthernet0/1
 channel-group 1 mode passive
!
interface FastEthernet0/2
 channel-group 1 mode passive
```

Which change to the configuration on Switch? allows the two switches to establish an EtherChannel?

- A. Change the protocol to EtherChannel mode on.
- B. Change the LACP mode to active
- C. Change the LACP mode to desirable
- D. Change the protocol to PAqP and use auto mode

Answer: B

NEW QUESTION 9

- (Exam 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 10

- (Exam 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 10

- (Exam Topic 2)

Which two primary drivers support the need for network automation? (Choose two.)

- A. Eliminating training needs
- B. Increasing reliance on self-diagnostic and self-healing
- C. Policy-derived provisioning of resources
- D. Providing a ship entry point for resource provisioning
- E. Reducing hardware footprint

Answer: CD

NEW QUESTION 12

- (Exam Topic 2)

What are two descriptions of three-tier network topologies? (Choose two)

- A. The core and distribution layers perform the same functions
- B. The access layer manages routing between devices in different domains
- C. The network core is designed to maintain continuous connectivity when devices fail.
- D. The core layer maintains wired connections for each host
- E. The distribution layer runs Layer 2 and Layer 3 technologies

Answer: CE

NEW QUESTION 17

- (Exam Topic 1)

Which MAC address is recognized as a VRRP virtual address?

- A. 0000.5E00.010a
- B. 0005.3711.0975
- C. 0000.0C07.AC99
- D. 0007.C070/AB01

Answer: A

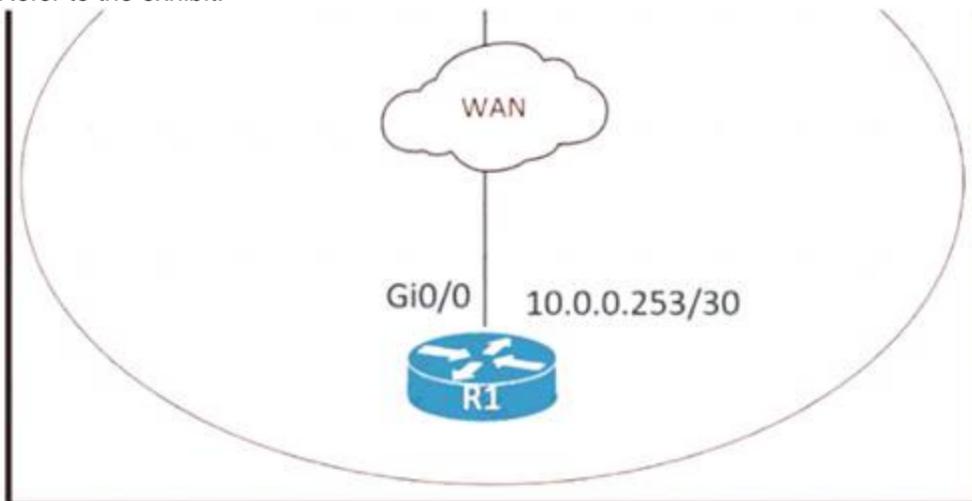
Explanation:

With VRRP, the virtual router's MAC address is 0000.5E00.01xx , in which xx is the VRRP group.

NEW QUESTION 22

- (Exam Topic 1)

Refer to the exhibit.



An administrator must turn off the Cisco Discovery Protocol on the port configured with address last usable address in the 10.0.0.0/30 subnet. Which command set meets the requirement?

- A. interface gi0/1 no cdp enable
- B. interface gi0/1 clear cdp table
- C. interface gi0/0 no cdp advertise-v2
- D. interface gi0/0 no cdp run

Answer: D

NEW QUESTION 24

- (Exam Topic 1)

Which device controls the forwarding of authentication requests for users when connecting to the network using a lightweight access point?

- A. TACACS server
- B. wireless access point
- C. RADIUS server
- D. wireless LAN controller

Answer: B

NEW QUESTION 29

- (Exam Topic 1)

What are network endpoints?

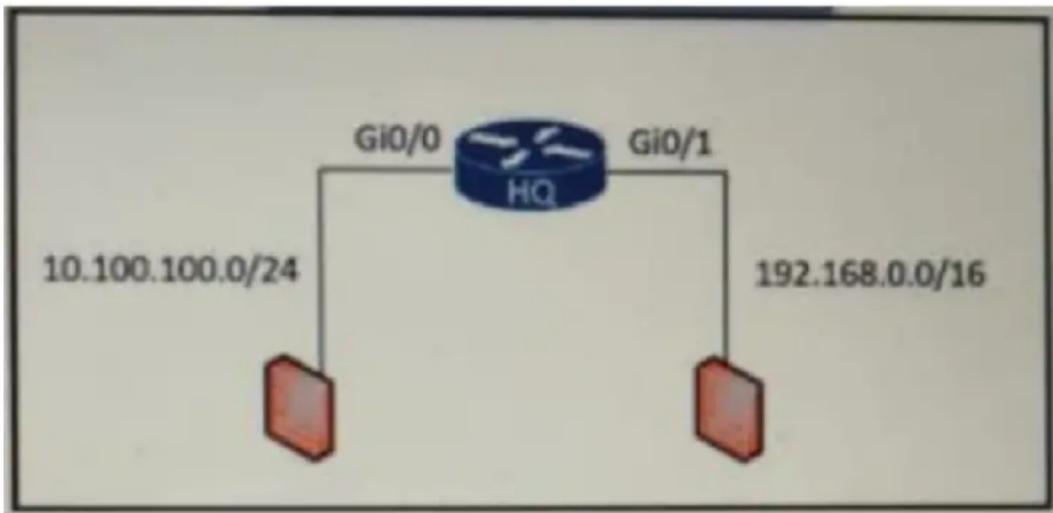
- A. act as routers to connect a user to the service prowler network
- B. a threat to the network if they are compromised
- C. support inter-VLAN connectivity
- D. enforce policies for campus-wide traffic going to the internet

Answer: B

NEW QUESTION 34

- (Exam Topic 1)

Refer to the exhibit.



An access list is required to permit traffic from any host on interface G0/0 and deny traffic from interface G/0/1. Which access list must be applied?

- ip access-list standard 99
 permit 10.100.100.0 0.0.0.255
 deny 192.168.0.0 0.0.255.255
- ip access-list standard 99
 permit 10.100.100.0 0.0.0.255
 deny 192.168.0.0 0.255.255.255
- ip access-list standard 199
 permit 10.100.100.0 0.0.0.255
 deny 192.168.0.0 0.255.255.255
- ip access-list standard 199
 permit 10.100.100.0 0.0.0.255
 deny 192.168.0.0 0.0.255.255

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

Answer: A

NEW QUESTION 38

- (Exam Topic 1)

Drag and drop the QoS congestion management terms from the left onto the description on the right.

CBWQ	places packets into one of four priority-based queues
CQ	provides guaranteed bandwidth to a specified class of traffic
FIFO	provides minimum guaranteed bandwidth to one or more flows
PQ	services a specified number of bytes in one queue before continuing to the next queue
WFQ	uses store-and-forward queuing

- A. Mastered
- B. Not Mastered

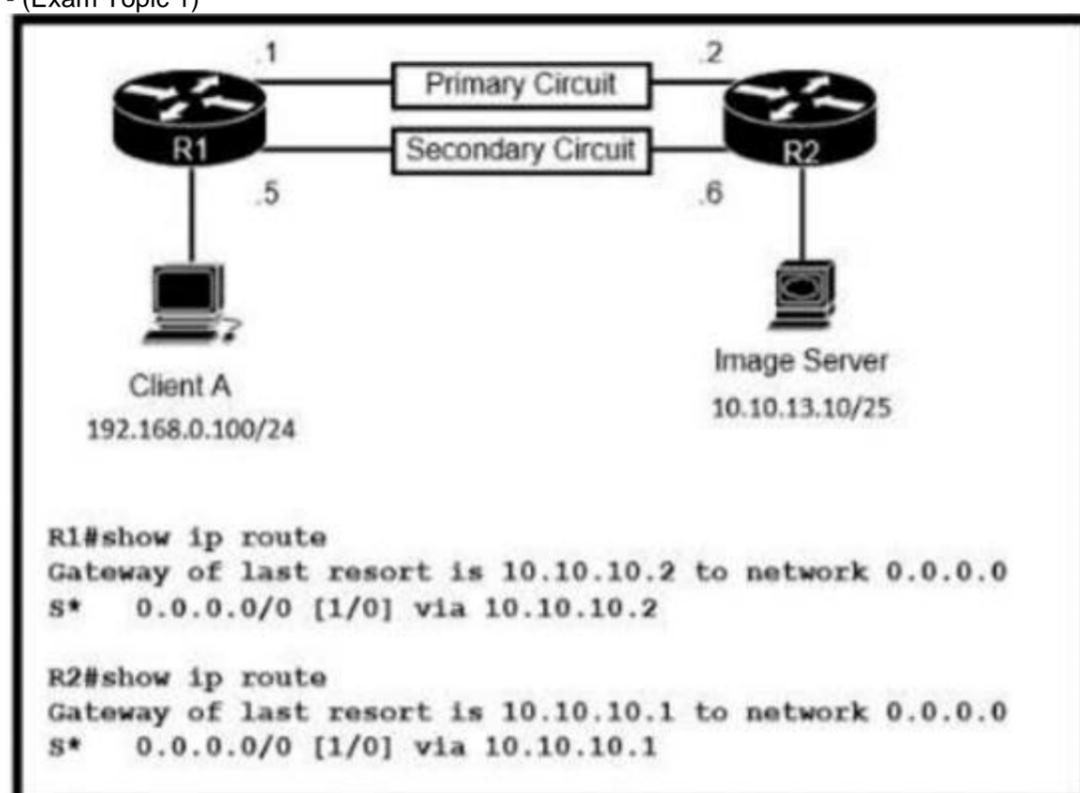
Answer: A

Explanation:



NEW QUESTION 40

- (Exam 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 43

- (Exam Topic 1)

What is a practice that protects a network from VLAN hopping attacks?

- A. Enable dynamic ARP inspection
- B. Configure an ACL to prevent traffic from changing VLANs
- C. Change native VLAN to an unused VLAN ID
- D. Implement port security on internet-facing VLANs

Answer: C

NEW QUESTION 44

- (Exam Topic 1)

What is the difference regarding reliability and communication type between TCP and UDP?

- A. TCP is reliable and is a connection-oriented protocol UDP is not reliable and is a connectionless protocol
- B. TCP is not reliable and is a connection-oriented protocol; UDP is reliable and is a connectionless protocol
- C. TCP is not reliable and is a connectionless protocol; UDP is reliable and is a connection-oriented protocol
- D. TCP is reliable and is a connectionless protocol; UDP is not reliable and is a connection-oriented protocol

Answer: A

NEW QUESTION 47

- (Exam 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 52

- (Exam Topic 1)

Drag and drop the functions of DHCP from the left onto any of the positions on the right Not all functions are used

provides local control for network segments using a client-server scheme	1
reduces the administrative burden for onboarding end users	2
associates hostnames to IP addresses	3
maintains an address pool	4
assigns IP addresses to local hosts for a configurable lease time	
offers domain name server configuration	
uses authoritative servers for record keeping	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, email Description automatically generated

NEW QUESTION 55

- (Exam Topic 1)

In which situation is private IPv4 addressing appropriate for a new subnet on the network of an organization?

- A. There is limited unique address space, and traffic on the new subnet will stay local within the organization.
- B. The network has multiple endpoint listeners, and it is desired to limit the number of broadcasts.
- C. Traffic on the subnet must traverse a site-to-site VPN to an outside organization.
- D. The ISP requires the new subnet to be advertised to the internet for web services.

Answer: A

NEW QUESTION 56

- (Exam Topic 1)

Drag and drop the 802.11 wireless standards from the left onto the matching statements on the right

802.11a	Operates in the 2,4 GHz and 5 GHz bands.
802.11ac	Operates in the 2.4 GHz band only and supports a maximum data rate of 54 Mbps.
802.11b	Operates in the 5 GHz band only and supports a maximum data rate that can exceed 100 Mbps.
802.11g	Supports a maximum data rate of 11 Mbps.
802.11n	Operates in the 5 GHz band only and supports a maximum data rate of 54 Mbps.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

802.11a	802.11n
802.11ac	802.11g
802.11b	802.11ac
802.11g	802.11b
802.11n	802.11a

NEW QUESTION 59

- (Exam Topic 4)

Which command configures the Cisco WLC to prevent a serial session with the WLC CLI from being automatical toggged out?

- A. config sessions maxsessions 0
- B. config sessions timeout 0
- C. config serial timeout 0
- D. config serial timeout 9600

Answer: B

NEW QUESTION 60

- (Exam Topic 4)

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

- It grants access to network assets, such as FTP servers.
- It limits the services available to a user.
- It performs user validation via TACACS+.
- It records the duration of each connection.
- It supports User Access Reporting.
- It verifies "who you are".

Accounting
Authentication

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

1&6 authentication
 2&4 authorization

NEW QUESTION 64

- (Exam Topic 4)

How does frame switching function on a switch?

- A. forwards frames to a neighbor port using CDP
- B. modifies frames that contain a known source VLAN
- C. inspects and drops frames from unknown destinations
- D. forwards known destinations to the destination port

Answer: D

NEW QUESTION 66

- (Exam Topic 4)

What is the purpose of classifying network traffic in QoS?

- A. services traffic according to its class
- B. identifies the type of traffic that will receive a particular treatment
- C. writes the class identifier of a packet to a dedicated field in the packet header
- D. configures traffic-matching rules on network devices

Answer: B

NEW QUESTION 70

- (Exam 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 73

- (Exam Topic 4)

Which 802.11 frame type is Association Response?

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

Answer: A

NEW QUESTION 76

- (Exam 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 runts, 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 81

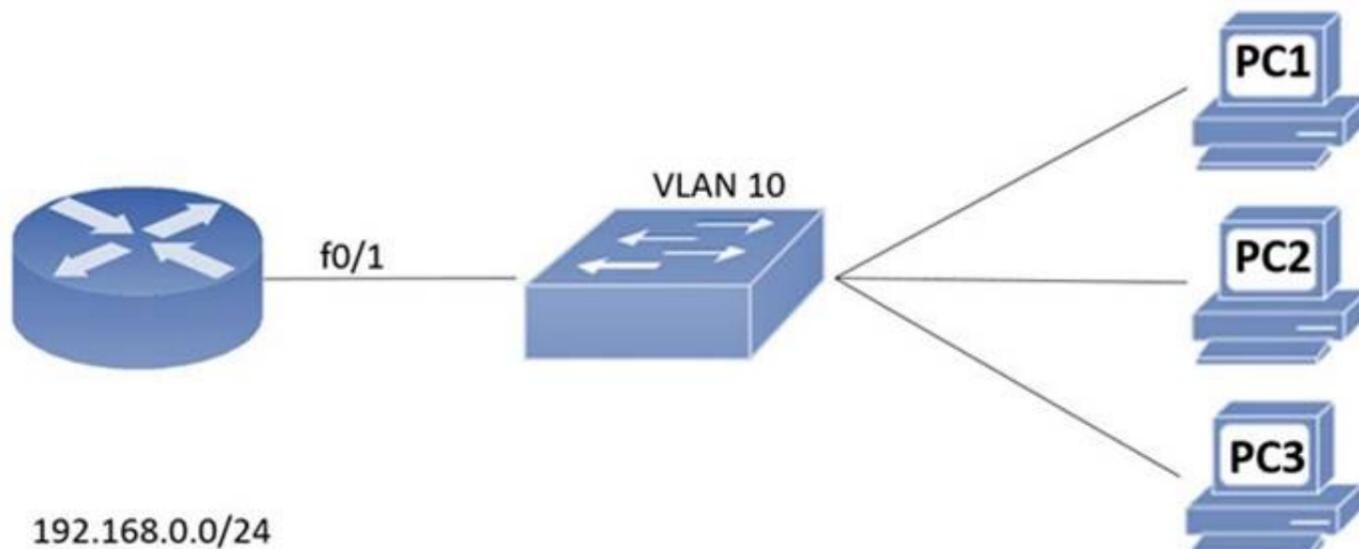
- (Exam Topic 4)
 What are two differences between WPA2 and WPA3 wireless security? (Choose two.)

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

Answer: CE

NEW QUESTION 83

- (Exam 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 84

- (Exam 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.	Split-MAC
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.	
	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.

Appropriate for a small-business environment.	Split-MAC Work is divided between the access point and the controller. Supports per device configuration and management. Uses the CAPWAP tunneling protocol.
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.	Autonomous The access points transmit beacon frames. Appropriate for a small-business environment.

NEW QUESTION 88

- (Exam Topic 4)

Which command do you enter so that a switch configured with Rapid PVST + listens and learns for a specific time period?

- A. switch(config)#spanning-tree vlan 1 max-age 6
- B. switch(config)#spanning-tree vlan 1 hello-time 10
- C. switch(config)#spanning-tree vlan 1 priority 4096
- D. switch(config)#spanning-tree vlan 1 forward-time 20

Answer: D

Explanation:

Forward time : Determines how long each of the listening and learning states last before the port begins forwarding.

Switch(config)# [no] spanning-tree vlan vlan_ID forward-time forward_time Configures the forward time of a VLAN. The forward_time value can be from 4 to 30 seconds.
<https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/15-02SG/configuration/guide/config/spantree.html#56177>

NEW QUESTION 92

- (Exam Topic 4)

A network engineer must migrate a router loopback interface to the IPv6 address space. If the current IPv4 address of the interface is 10.54.73.1/32, and the engineer configures IPv6 address 0.0.0.0:fff:a36:4901, which prefix length must be used?

- A. /64
- B. /96
- C. /124
- D. /128

Answer: D

NEW QUESTION 95

- (Exam Topic 4)

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

enables aggregation of routing prefixes	Global Unicast Address
provides for one-to-one communication	
provides one-to-many communications	
sends packets to a group address rather than a single address	
Multicast	

- A. Mastered
- B. Not Mastered

Answer: A

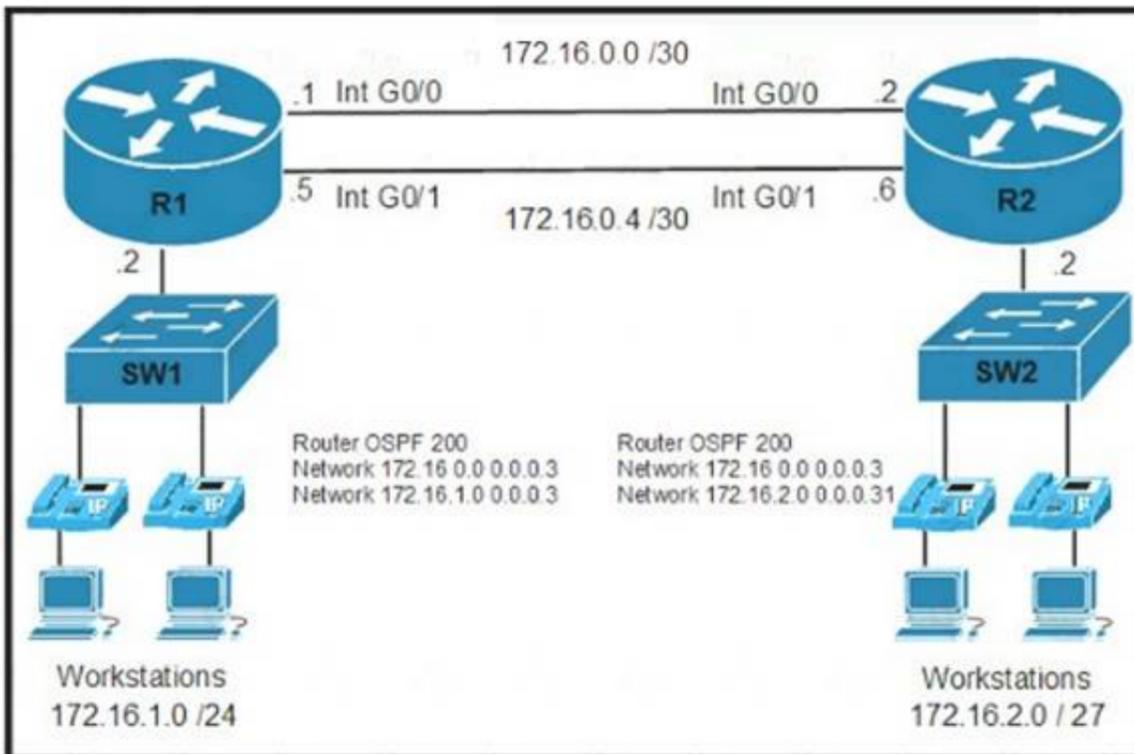
Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 99

- (Exam Topic 4)

Refer to the exhibit.



The primary route across Gi0/0 is configured on both routers. A secondary route must be configured to establish connectivity between the workstation networks. Which command set must be configured to complete this task?

A)

```

R1
ip route 172.16.2.0 255.255.255.240 172.16.0.2 113

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.1 114

B)
R1
ip route 172.16.2.0 255.255.255.240 172.16.0.5 89

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.6 89

C)
R1
ip route 172.16.2.0 255.255.255.248 172.16.0.5 110

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.6 110

D)
R1
ip route 172.16.2.0 255.255.255.224 172.16.0.6 111

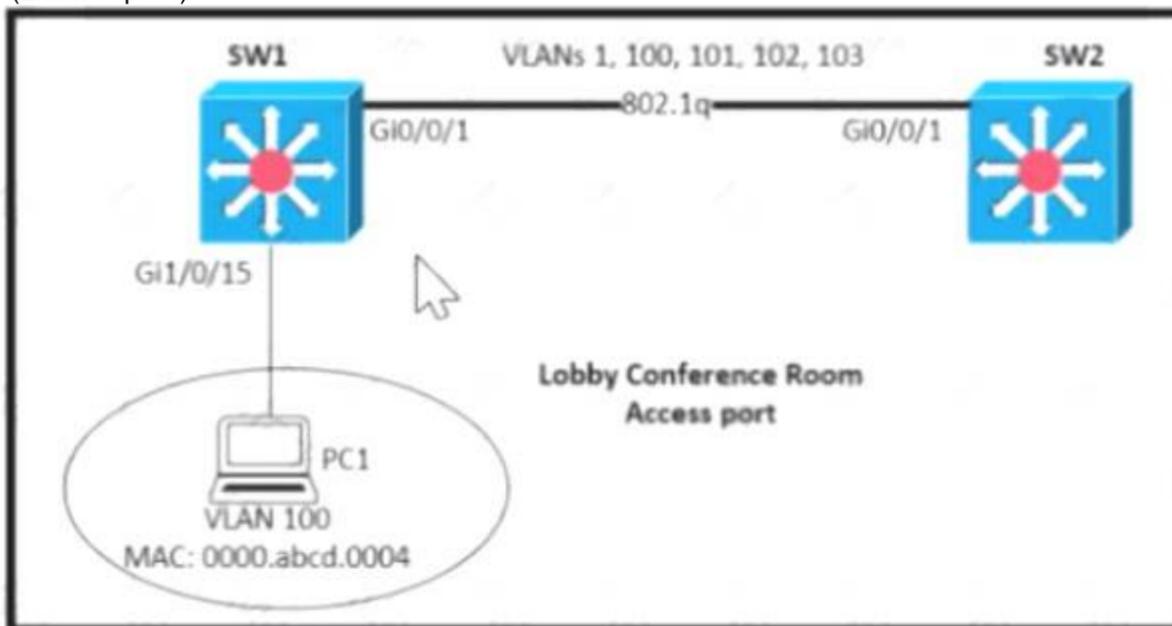
R2
ip route 172.16.1.0 255.255.255.0 172.16.0.5 112
    
```

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

Answer: D

NEW QUESTION 101

- (Exam Topic 4)



SW1 supports connectivity for a lobby conference room and must be secured. The engineer must limit the connectivity from PC1 to the SW1 and SW2 network. The MAC addresses allowed must be limited to two. Which configuration secures the conference room connectivity?

```

A)
> interface gi1/0/15
  switchport port-security mac-address 0000.abcd.0004 vlan 100

B)
> interface gi1/0/15
  switchport port-security
  switchport port-security maximum 2

C)
> interface gi1/0/15
  switchport port-security mac-address 0000.abcd.0004 vlan 100
  interface switchport secure-mac limit 2

D)
> interface gi1/0/15
  switchport port-security
  switchport port-security mac-address 0000.abcd.0004 vlan 100
    
```

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

Answer: B

NEW QUESTION 104

- (Exam Topic 4)

Which WAN topology has the highest degree of reliability?

- A. full mesh
- B. Point-to-point
- C. hub-and-spoke
- D. router-on-a-stick

Answer: A

NEW QUESTION 105

- (Exam Topic 4)

Which type of IPv4 address type helps to conserve the globally unique address classes?

- A. multicast
- B. private
- C. loopback
- D. public

Answer: B

NEW QUESTION 108

- (Exam Topic 4)

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

confined to a single link
required on all IPv6 devices
is publicly routable in the same way as IPv4 addresses
provides for one-to-one communication

Global Unicast Address
Link-Local Address

- A. Mastered
- B. Not Mastered

Answer: A

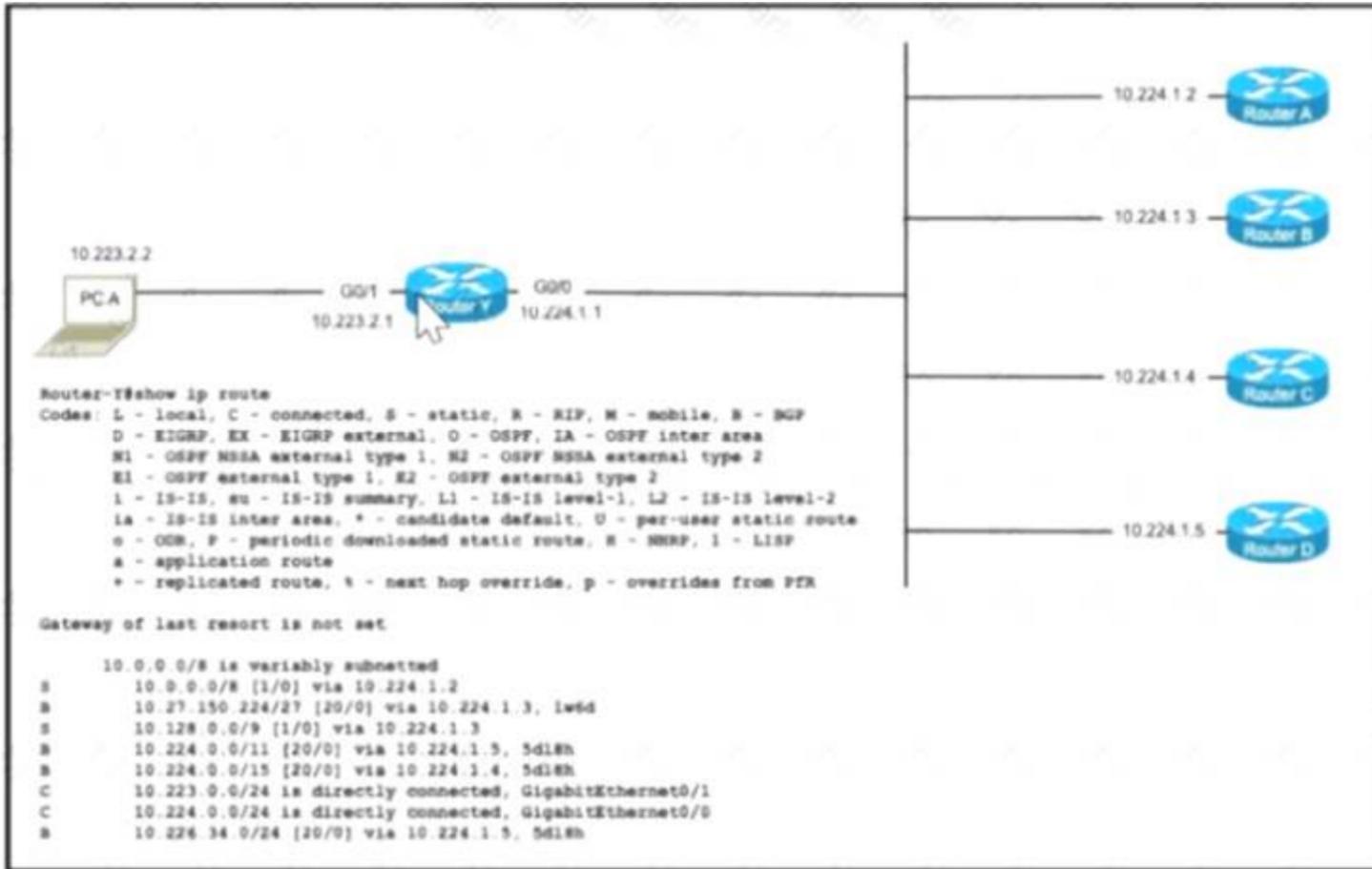
Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 109

- (Exam Topic 4)

Refer to the exhibit.



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 113

- (Exam Topic 4)

Refer to the exhibit.



Host A switch interface is configured in VLAN 2. Host D sends a unicast packet destined for the IP address of host A.

```
Sw1#show mac-address table
Mac Address Table
```

Vlan	Mac Address	Type	Ports
2	000c.859c.bb7b	DYNAMIC	e0/1
3	000c.859c.bb7b	DYNAMIC	e0/1
2	0010.11dc.3e91	DYNAMIC	e0/2
3	0010.11dc.3e91	DYNAMIC	e0/2
2	0043.49d4.c383	DYNAMIC	e0/3

What does the switch do when it receives the frame from host D?

- A. It creates a broadcast storm.
- B. It drops the frame from the MAC table of the switch.
- C. It shuts down the source port and places it in err-disable mode.
- D. It floods the frame out of every port except the source port.

Answer: C

NEW QUESTION 117

- (Exam Topic 4)

What are two disadvantages of a full-mesh topology? (Choose two.)

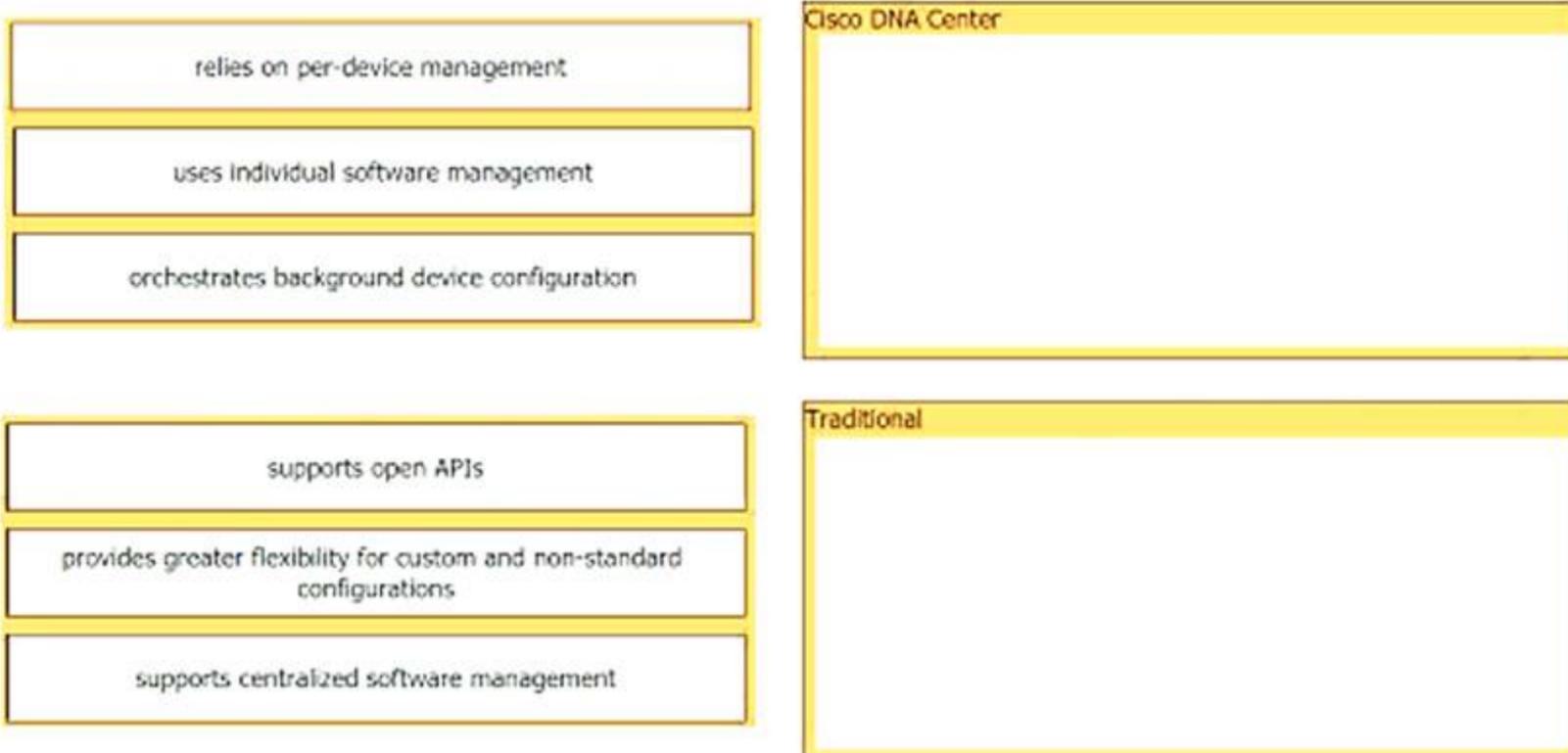
- A. It needs a high MTU between sites.
- B. It has a high implementation cost.
- C. It must have point-to-point communication.
- D. It requires complex configuration.
- E. It works only with BGP between sites.

Answer: BD

NEW QUESTION 122

- (Exam Topic 4)

Drag and drop each characteristic of device-management technologies from the left onto the deployment type on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A picture containing diagram Description automatically generated

NEW QUESTION 123

- (Exam Topic 4)

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

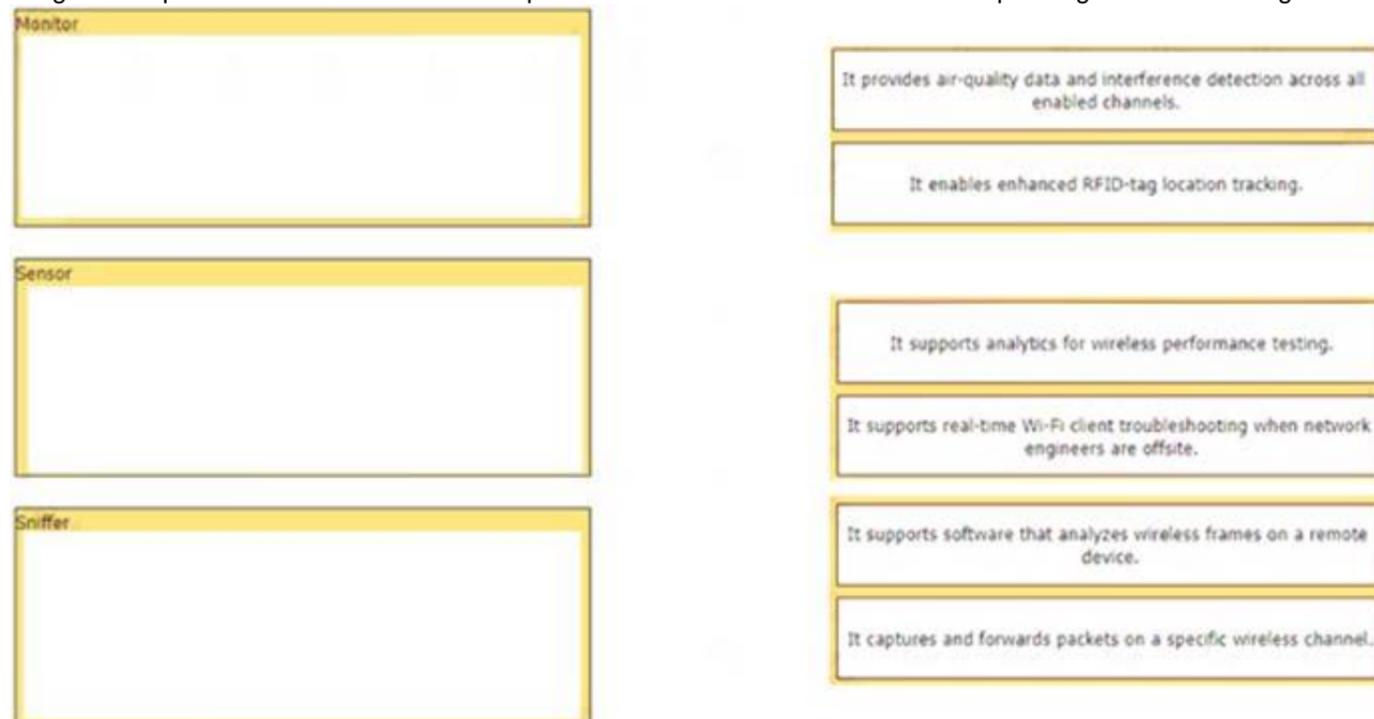
- A. per-device
- B. centralized
- C. device-by-device hands-on
- D. CLI-oriented device

Answer: B

NEW QUESTION 128

- (Exam Topic 4)

Drag and drop the statements about access-point modes from the left onto the corresponding modes on the right.



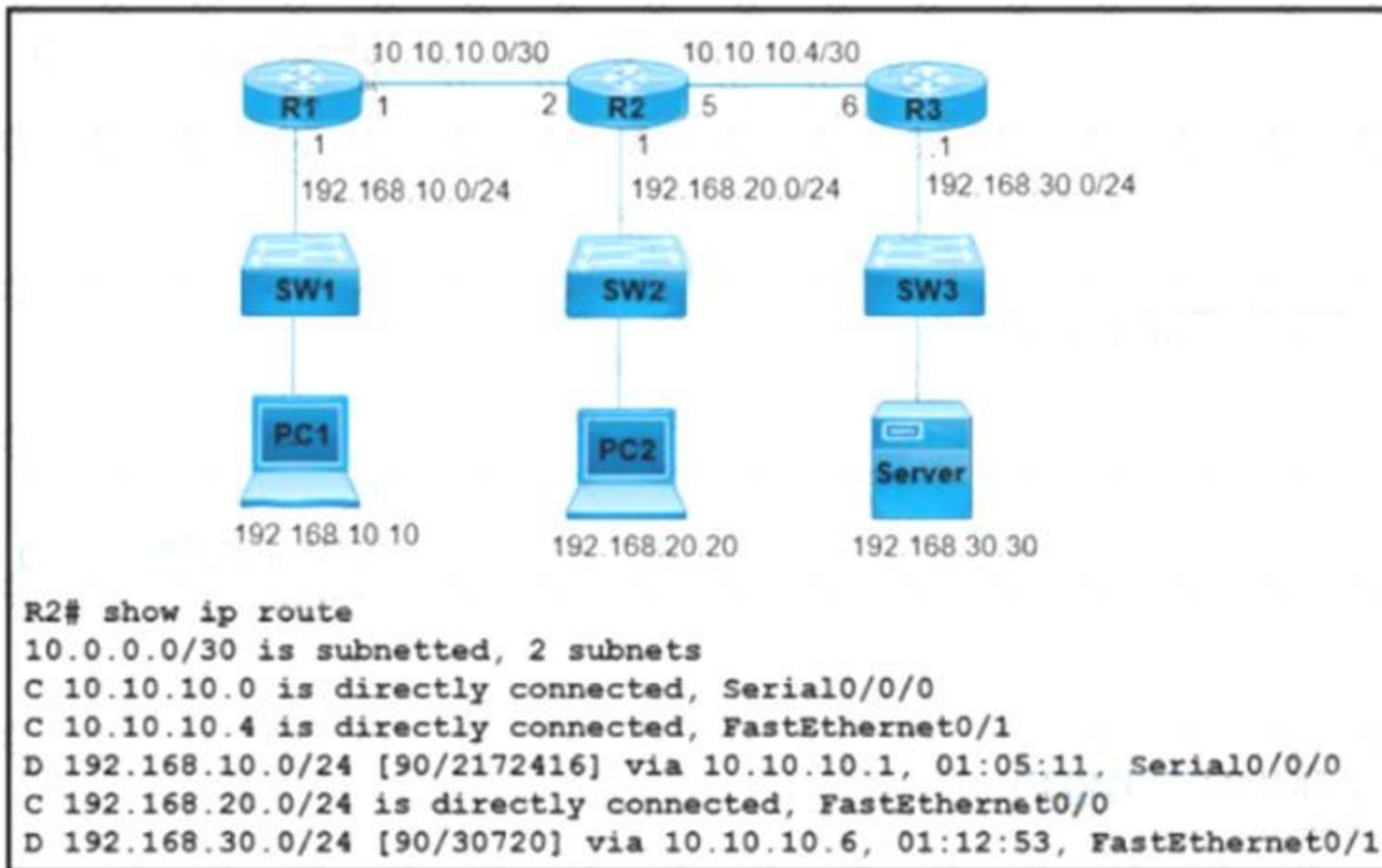
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A picture containing diagram Description automatically generated

NEW QUESTION 130
 - (Exam Topic 4)



Refer to the exhibit. What is the next-hop P address for R2 so that PC2 reaches the application server via EIGRP?

- A. 192.168.30.1
- B. 10.10.105
- C. 10.10.10.6
- D. 192.168.201

Answer: D

NEW QUESTION 131

- (Exam Topic 4)

Which QoS queuing method discards or marks packets that exceed the desired bit rate of traffic flow?

- A. shaping
- B. policing
- C. CBWFQ
- D. LLQ

Answer: B

NEW QUESTION 134

- (Exam Topic 4)

What is a function of MAC address learning?

- A. It is enabled by default on all VLANs and interfaces
- B. It increases the potential for MAC address flooding.
- C. It is disabled by default on all interfaces connected to trunks
- D. It increases security on the management VLAN

Answer: A

NEW QUESTION 137

- (Exam Topic 4)

SIP-based Call Admission Control must be configured in the Cisco WLC GUI. SIP call-snooping ports are configured. Which two actions must be completed next? (Choose two.)

- A. Set the QoS level to silver or greater for voice traffic.
- B. Set the QoS level to platinum for voice traffic.
- C. Enable Media Session Snooping on re WLAN.
- D. Enable traffic shaping for the LAN interlace of the WLC.
- E. Configure two different QoS rotes tor data and voice traffic.

Answer: DE

NEW QUESTION 142

- (Exam Topic 4)

A Cisco engineer at a new branch office is configuring a wireless network with access points that connect to a controller that is based at corporate headquarters Wireless client traffic must terminate at the branch office and access-point survivability is required in the event of a WAN outage Which access point mode must be

selected?

- A. Lightweight with local switching disabled
- B. Local with AP fallback enabled
- C. OfficeExtend with high availability disabled
- D. FlexConnect with local switching enabled

Answer: C

NEW QUESTION 143

- (Exam 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 147

- (Exam Topic 4)

Drag and drop the characteristics of transport layer protocols from the left onto the corresponding protocols on the right.

guarantees packet delivery	TCP
uses a 32-bit sequence number	
ideal for voice traffic	
provides support for retransmission of lost packets	UDP
offers minimal overhead within a packet	
requires less computer resources	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

guarantees packet delivery	TCP
uses a 32-bit sequence number	
ideal for voice traffic	
provides support for retransmission of lost packets	UDP
offers minimal overhead within a packet	
requires less computer resources	

NEW QUESTION 151

- (Exam 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 154

- (Exam Topic 4)

What is the advantage of separating the control plane from the data plane within an SDN network?

- A. decreases overall network complexity
- B. limits data queries to the control plane
- C. reduces cost
- D. offloads the creation of virtual machines to the data plane

Answer: A

NEW QUESTION 156

- (Exam 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 160

- (Exam Topic 4)

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

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

Answer: B

NEW QUESTION 165

- (Exam 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 166

- (Exam Topic 4)

How do TCP and UDP fit into a query-response model?

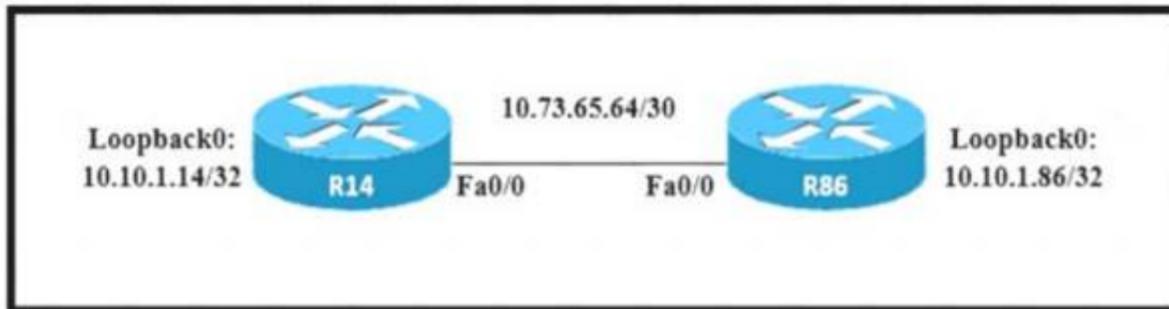
- A. TCP establishes a connection prior to sending data, and UDP sends immediately.
- B. TCP uses error detection for packets, and UDP uses error recovery.
- C. TCP avoids using sequencing, and UDP avoids using acknowledgments.
- D. TCP encourages out-of-order packet delivery, and UDP prevents re-ordering.

Answer: A

NEW QUESTION 168

- (Exam Topic 4)

Refer to the exhibit.



All interfaces are configured with duplex auto and ip ospf network broadcast. Which configuration allows routers R14 and R86 to form an OSPFv2 adjacency and act as a central point for exchanging OSPF information between routers?

 R14#

```
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf priority 0
ip mtu 1500
```

```
router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
```

R86#

```
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip mtu 1500
```

```
router ospf 10
router-id 10.10.1.86
network 10.10.1.86 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
```

 R14#

```
interface Loopback0
ip ospf 10 area 0
```

```
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf priority 255
ip ospf 10 area 0
ip mtu 1500
```

```
router ospf 10
router-id 10.10.1.14
```

R86#

```
interface Loopback0
ip ospf 10 area 0
```

```
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf 10 area 0
ip mtu 1500
```

```
router ospf 10
router-id 10.10.1.86
```

R14#
 interface FastEthernet0/0
 ip address 10.73.65.65 255.255.255.252
 ip ospf priority 255
 ip mtu 1500

 router ospf 10
 router-id 10.10.1.14
 network 10.10.1.14 0.0.0.0 area 0
 network 10.73.65.64 0.0.0.3 area 0
 R86#
 interface FastEthernet0/0
 ip address 10.73.65.66 255.255.255.252
 ip mtu 1400

 router ospf 10
 router-id 10.10.1.86
 network 10.10.1.86 0.0.0.0 area 0
 network 10.73.65.64 0.0.0.3 area 0

R14#
 interface Loopback0
 ip ospf 10 area 0

 interface FastEthernet0/0
 ip address 10.73.65.65 255.255.255.252
 ip ospf 10 area 0
 ip mtu 1500

 router ospf 10
 ip ospf priority 255
 router-id 10.10.1.14
 R86#
 interface Loopback0
 ip ospf 10 area 0

 interface FastEthernet0/0
 ip address 10.73.65.66 255.255.255.252
 ip ospf 10 area 0
 ip mtu 1500

 router ospf 10
 router-id 10.10.1.86

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

Answer: B

NEW QUESTION 169

- (Exam 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 173

- (Exam Topic 4)

Which benefit does Cisco ONA Center provide over traditional campus management?

- A. Cisco DNA Center leverages SNMPv3 for encrypted management, and traditional campus management uses SNMPv2.
- B. Cisco DNA Center automates HTTPS for secure web access, and traditional campus management uses HTTP.
- C. Cisco DNA Center leverages APIs, and traditional campus management requires manual data gathering.
- D. Cisco DNA Center automates SSH access for encrypted entry, and SSH is absent from traditional campus management.

Answer: B

NEW QUESTION 174

- (Exam Topic 4)

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 configuring on switch2 so that it sends LLDP packets.

A)

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

B)

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

C)

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

D)

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

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

Answer: C

NEW QUESTION 177

- (Exam Topic 4)

Which component controls and distributes physical resources for each virtual machine?

- A. OS
- B. hypervisor
- C. CPU
- D. physical enclosure

Answer: B

NEW QUESTION 178

- (Exam Topic 4)

How does authentication differ from authorization?

- A. Authentication verifies the identity of a person accessing a network, and authorization determines what resource a user can access.
- B. Authentication is used to record what resource a user accesses, and authorization is used to determine what resources a user can access
- C. Authentication is used to determine what resources a user is allowed to access, and authorization is used to track what equipment is allowed access to the network
- D. Authentication is used to verify a person's identity, and authorization is used to create syslog messages for logins.

Answer: A

NEW QUESTION 180

- (Exam 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 183

- (Exam Topic 4)

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

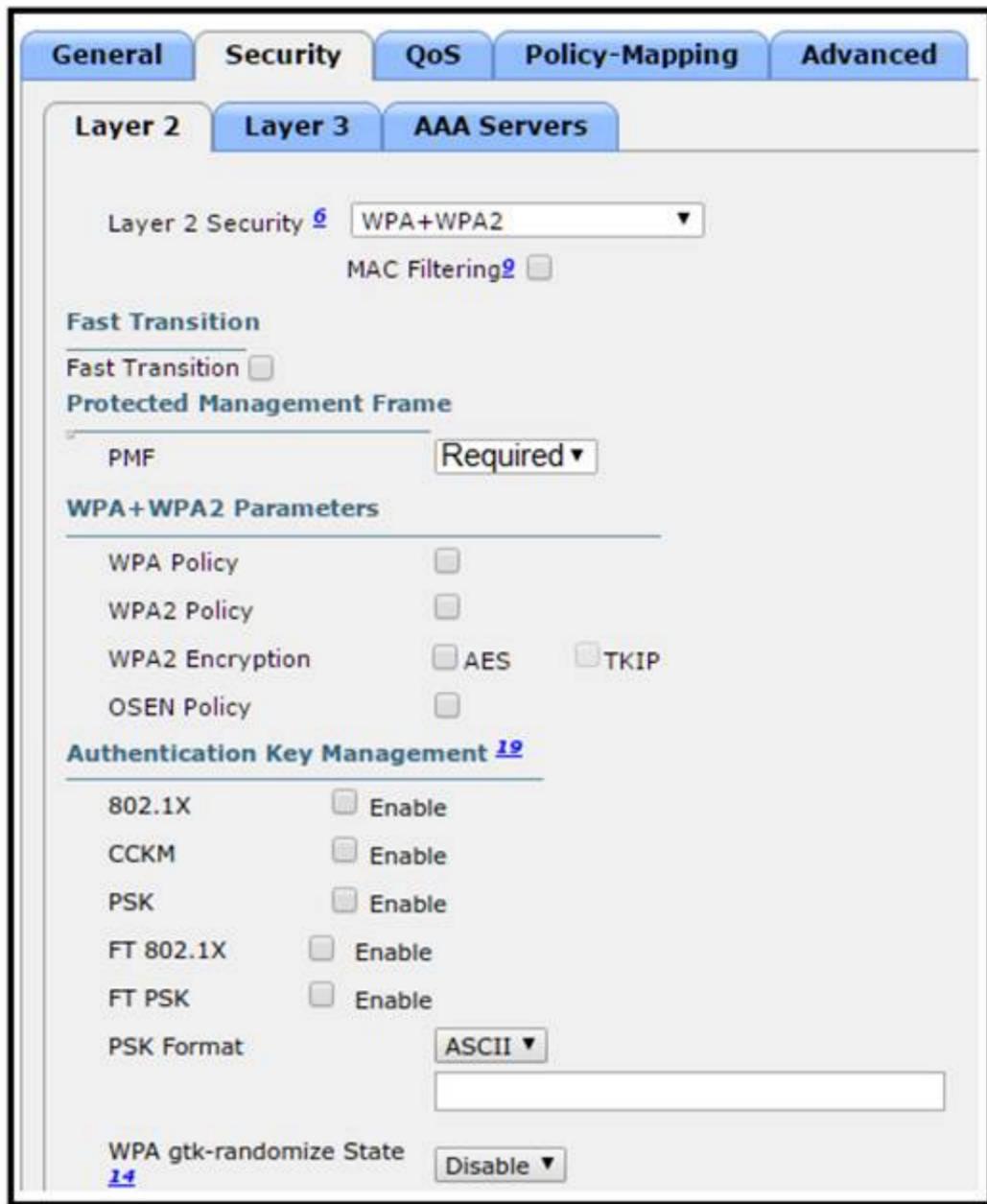
- A. Both require fiber cable media for transmission.
- B. Both require UTP cable media for transmission.
- C. Both use the single-mode fiber type.
- D. Both use the multimode fiber type.

Answer: A

NEW QUESTION 185

- (Exam Topic 4)

Refer to the exhibit.



The network engineer is configuring a new WLAN and is told to use a setup password for authentication instead of the RADIUS servers. Which additional set of tasks must the engineer perform to complete the configuration?

- A. Disable PMF Enable PSK Enable 802.1x
- B. Select WPA Policy Enable CCKM Enable PSK
- C. Select WPA Policy Select WPA2 Policy Enable FT PSK
- D. Select WPA2 Policy Disable PMF Enable PSK

Answer: D

NEW QUESTION 188

- (Exam 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    10.0.0.0/8 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 10.0.1.100, 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, Gigabit Ethernet 0/0
D    10.0.1.4/32 [110/10] via 10.0.1.4, 00:39:08, Gigabit Ethernet 0/0
    
```

What does route 10.0.1.3/32 represent in the routing table?

- A. the 10.0.0.0 network
- B. a single destination address
- C. the source 10.0.1.100
- D. all hosts in the 10.0.1.0 subnet

Answer: A

NEW QUESTION 192

- (Exam Topic 4)

A network engineer is replacing the switches that belong to a managed-services client with new Cisco Catalyst switches. The new switches will be configured for updated security standards, including replacing Telnet services with encrypted connections and doubling the modulus size from 1024. Which two commands must the engineer configure on the new switches? (Choose two.)

- A. crypto key generate rsa general-keys modulus 1024
- B. transport input all
- C. crypto key generate rsa usage-keys
- D. crypto key generate rsa modulus 2048
- E. transport Input ssh

Answer: AE

NEW QUESTION 193

- (Exam Topic 4)

Refer to the exhibit.

```

R1#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
Internet address is 192.168.1.2/24, Area 0
Process ID 1, Router ID 192.168.1.2, Network Type POINT-TO-POINT, Cost: 1
Transmit Delay is 1 sec, State POINT-TO-POINT,
Timer intervals configured, Hello 15, Dead 20, Wait 20, Retransmit 5
Hello due in 00:00:08
Index 1/1, flood queue length 0
Next 0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 1
Last flood scan time is 0 msec, maximum is 0 msec
Suppress hello for 0 neighbor(s)

R2#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
Internet address is 192.168.1.1/24, Area 0
Process ID 1, Router ID 10.1.1.1, Network Type POINT-TO-POINT, Cost: 1
Transmit Delay is 1 sec, State POINT-TO-POINT,
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
Hello due in 00:00:11
Index 1/1, flood queue length 0
Next 0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 1
Last flood scan time is 0 msec, maximum is 0 msec
Suppress hello for 0 neighbor(s)
    
```

The network engineer is configuring router R2 as a replacement router on the network After the initial configuration is applied it is determined that R2 failed to show R1 as a neighbor Which configuration must be applied to R2 to complete the OSPF configuration and enable it to establish the neighbor relationship with R1?

- A)


```

R2(config)#router ospf 1
R2(config-router)#network 192.168.1.0 255.255.255.0 area 2
R2(config-router)#network 10.1.1.0 255.255.255.255 area 2
            
```
- B)


```

R2(config)#router ospf 1
R2(config-router)#router-id 192.168.1.2
            
```
- C)

```
R2(config)#interface g0/0/0
R2(config-if)#ip ospf dead-interval 20
```

D)

```
R2(config)#interface g0/0/0
R2(config-if)#ip ospf hello-interval 15
R2(config-if)#ip ospf dead-interval 20
```

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

Answer: D

NEW QUESTION 196

- (Exam Topic 4)

What determines the sequence in which materials are planned during the material requirements planning (MRP) run?

- A. The control parameters of the MRP run
- B. The creation date of the materials
- C. The low-level code of the materials
- D. The replenishment lead time of the materials

Answer: C

NEW QUESTION 200

- (Exam Topic 4)

Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

transmitted based on data contained in the packet without the need for a data channel	TCP
provides best-effort service	
requires the client and the server to establish a connection before sending the packet	UDP
supports reliable data transmission	

- A. Mastered
- B. Not Mastered

Answer: A

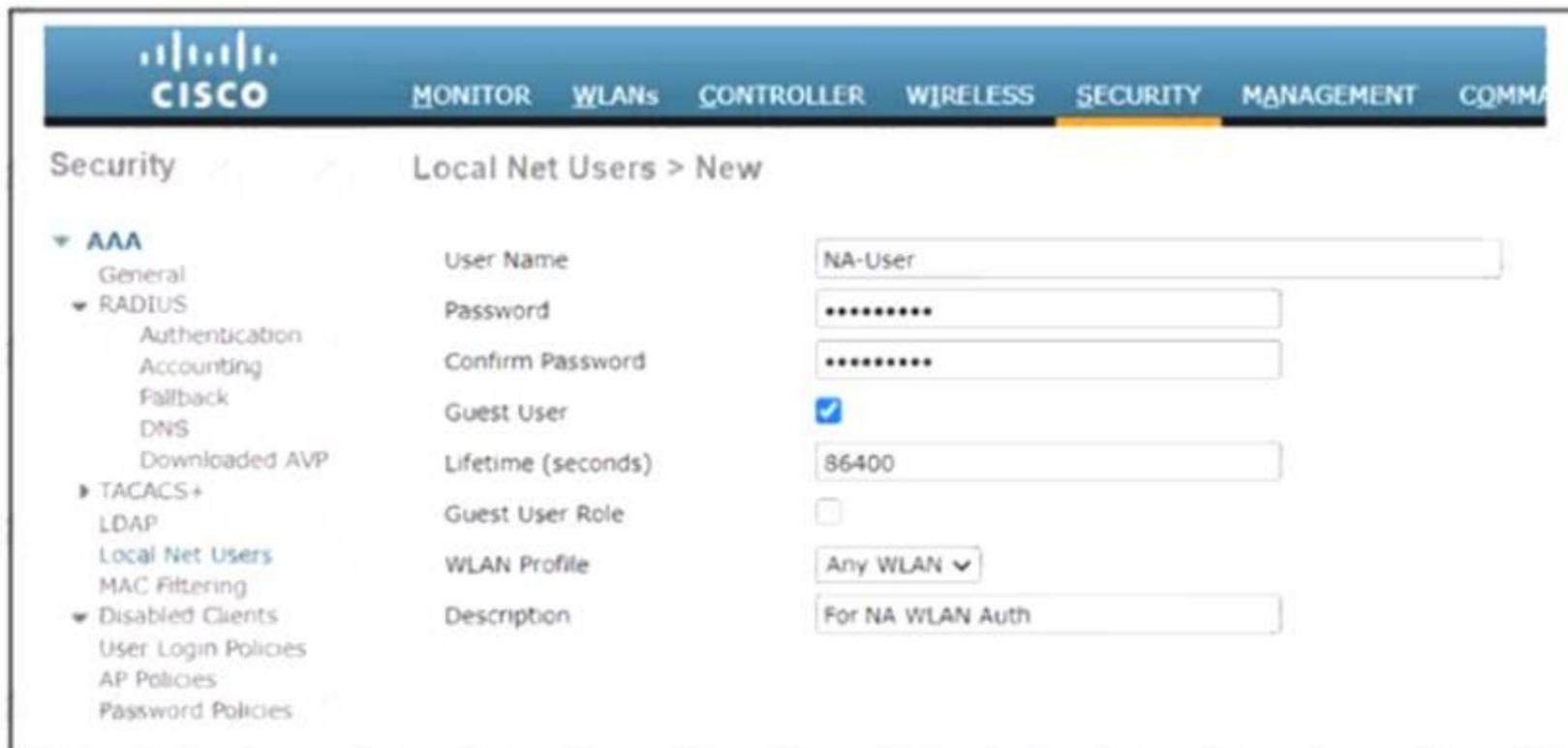
Explanation:

transmitted based on data contained in the packet without the need for a data channel	TCP
provides best-effort service	
requires the client and the server to establish a connection before sending the packet	UDP
supports reliable data transmission	

NEW QUESTION 202

- (Exam Topic 4)

Refer to the exhibit.



Wireless LAN access must be set up to force all clients from the NA WLAN to authenticate against the local database. The WLAN is configured for local EAP authentication. The time that users access the network must not be limited. Which action completes this configuration?

- A. Uncheck the Guest User check box
- B. Check the Guest User Role check box
- C. Set the Lifetime (seconds) value to 0
- D. Clear the Lifetime (seconds) value

Answer: C

NEW QUESTION 206

- (Exam Topic 4)

A client experiences slow throughput from a server that is directly connected to the core switch in a data center. A network engineer finds minimal latency on connections to the server, but data transfers are unreliable, and the output of the show Interfaces counters errors command shows a high FCS-Err count on the interface that is connected to the server. What is the cause of the throughput issue?

- A. high bandwidth usage
- B. a physical cable fault
- C. a speed mismatch
- D. a cable that is too long

Answer: B

NEW QUESTION 207

- (Exam Topic 4)

Drag and chop the TCP/IP protocols from the left onto their primary transmission protocols on the right.

DNS

HTTP

RTP

SMTP

SNMP

Telnet

TCP

UDP

- A. Mastered
- B. Not Mastered

Answer: A

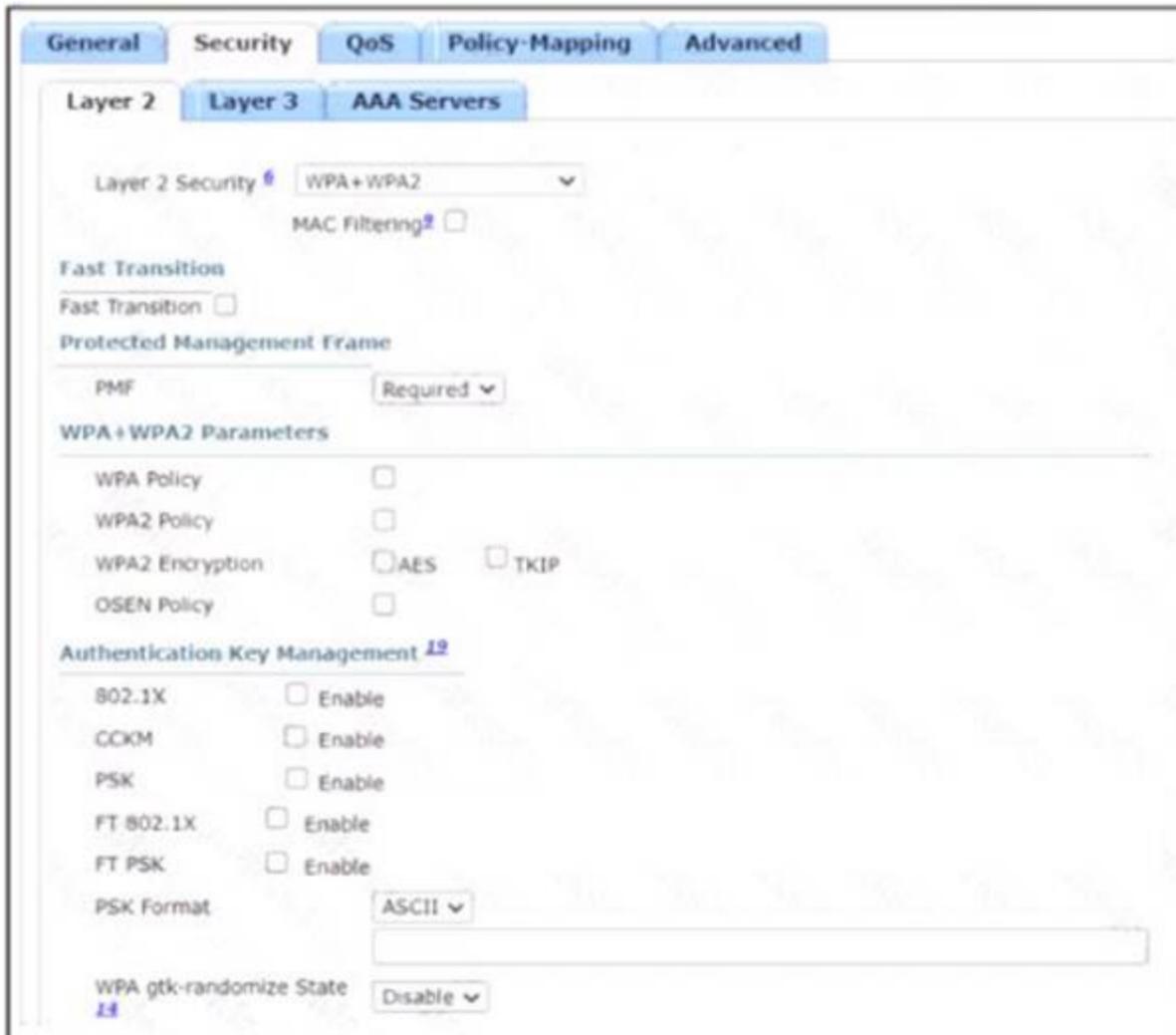
Explanation:



NEW QUESTION 212

- (Exam Topic 4)

Refer to the exhibit.



- A) Select **WPA Policy**
 Select **WPA2 Policy**
 Enable **FT PSK**
- B) Select **WPA2 Policy**
 Disable **PMF**
 Enable **PSK**
- C) Select **WPA Policy**
 Enable **CCKM**
 Enable **PSK**
- D) Disable **PMF**
 Enable **PSK**
 Enable **802.1x**

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

Answer: C

NEW QUESTION 217

- (Exam Topic 4)

A switch is forwarding a frame out of an interface except the interface that received the frame. What is the technical term for this process?

- A. ARP
- B. CDP
- C. flooding
- D. multicast

Answer: C

NEW QUESTION 218

- (Exam 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 vian except 11-4094
```

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

Answer: D

NEW QUESTION 222

- (Exam Topic 4)

Refer to the exhibit.

```
router# show ip route
....
D 172.18.32.0/26 [90/25789217] via 10.1.1.1
R 172.18.32.0/24 [120/4] via 10.1.1.2
O 172.18.32.0/19 [110/229840] via 10.1.1.3
C 172.18.32.32/32 is directly connected, Loopback0
C 172.18.32.36/30 is directly connected, GigabitEthernet0/0
L 172.18.32.37/32 is directly connected, GigabitEthernet0/0
```

A packet sourced from 172.18.33.2 is destined for 172.18.32.38. Where does the router forward the packet?

- A. GigabitEthernet0/0
- B. Loopback0
- C. 10.1.1.1
- D. 10.1.1.3

Answer: B

NEW QUESTION 227

- (Exam Topic 4)

Refer to the exhibit. User traffic originating within site 0 is failing to reach an application hosted on IP address 192.168.0.10. Which is located within site A What is determined by the routing table?

- A. The default gateway for site B is configured incorrectly
- B. The lack of a default route prevents delivery of the traffic
- C. The traffic is blocked by an implicit deny in an ACL on router2
- D. The traffic to 192.168.0.10 requires a static route to be configured in router 1.

Answer: B

NEW QUESTION 228

- (Exam 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 229

- (Exam Topic 4)

Refer to the exhibit.

```

R1# 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, E - EGP
       i - IS-IS, 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

Gateway of last resort is not set
10.0.0.0/24 is subnetted, 5 subnets
D    10.1.2.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D    10.1.3.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D    10.1.2.0/25 [90/2170112] via 10.165.20.126, 00:01:30, Serial0/0
D    10.1.3.0/25 [90/2170112] via 10.165.20.146, 00:01:30, Serial0/0
D    10.1.4.0/25 [90/2170112] via 10.165.20.156, 00:01:30, Serial0/0
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.18.10.0/24 is directly connected, GigabitEthernet0/0
    192.168.21.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.11.0/24 is directly connected, GigabitEthernet0/1
10.165.20.0/24 is variably subnetted, 2 subnets, 2 masks
C    10.165.20.224/24 is directly connected, Serial0/0
S    10.1.2.112/28 [1/0] via 10.165.20.166
    
```

What is the next hop for traffic entering R1 with a destination of 10.1.2.126?

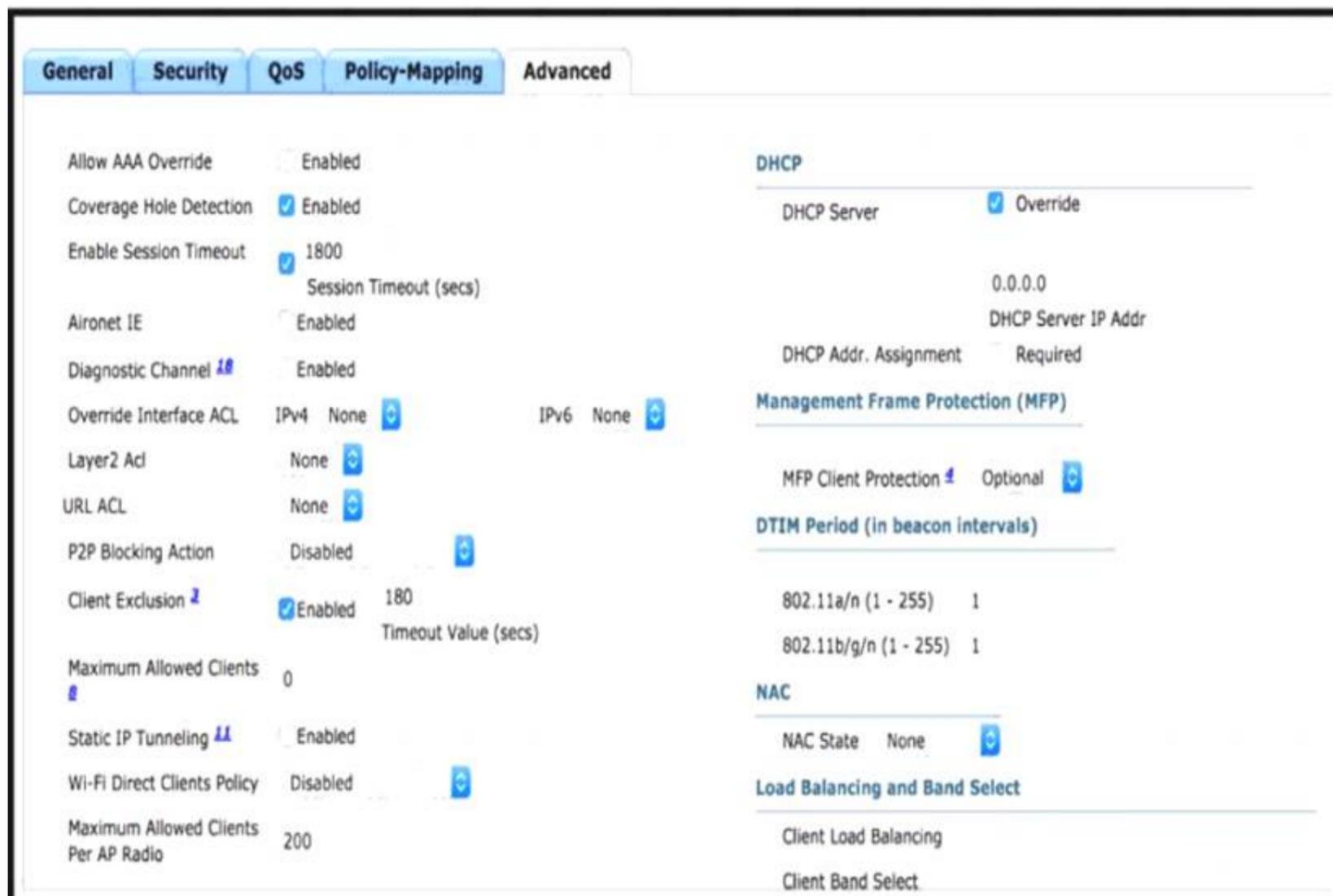
- A. 10.165.20.126
- B. 10.165.20.146
- C. 10.165.20.166
- D. 10.165.20.226

Answer: D

NEW QUESTION 230

- (Exam 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 Assignment check box.
- D. Assignment check box.
- E. Set the P2P Blocking Action option to Forward-UpStream.

Answer: A

NEW QUESTION 231

- (Exam Topic 4)

Refer to the exhibit.

```

Last clearing of "show interface" counters never
Input queue: 1/75/1/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: random early detection(RED)
Output queue :0/40 (size/max)
5 minute input rate 1000 bits/sec, 2 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 7558065 packets input, 783768942 bytes, 1 no buffer
Received 8280963 broadcasts, 0 runts, 0 giants, 1 throttles
 15 input errors, 14278 CRC, 0 frame, 0 overrun, 3 ignored
 0 input packets with dribble condition detected
798092 packets output, 50280266 bytes, 0 underruns
 0 output errors, 15000 collisions, 0 interface resets
 0 babbles, 0 late collision, 179 deferred
 0 lost carrier, 0 no carrier
 0 output buffer failures, 0 output buffers swapped out
    
```

An administrator received a call from a branch office regarding poor application performance hosted at the headquarters. Ethernet 1 is connected between Router1 and the LAN switch. What identifies the issue?

- A. The QoS policy is dropping traffic.
- B. There is a duplex mismatch.
- C. The link is over utilized.
- D. The MTU is not set to the default value.

Answer: C

NEW QUESTION 232

- (Exam Topic 4)

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

cannot be used as a source address
sends packets to a group address rather than a single address
confined to a single link
required on all IPv6 devices

Multicast
Link-Local Address

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 233

- (Exam Topic 4)

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

class-based weighted fair queuing	categorizes packets based on the value of a traffic descriptor
classification	guarantees minimum bandwidth to specific traffic classes when an interface is congested
congestion	prevents congestion by reducing the flow of outbound traffic
policing	outcome of overutilization
shaping	uses defined criteria to limit the transmission of one or more classes of traffic

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated

NEW QUESTION 236

- (Exam Topic 4)

Refer to the exhibit.

```
{
  "SW1" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"],
  "SW2" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"],
  "SW3" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"],
  "SW4" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"]
}
```

How many JSON objects are represented?

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

Answer: D

NEW QUESTION 238

- (Exam Topic 4)

Refer to the exhibit.

When router R1 receives a packet with destination IP address 10.56.0 62. through which interface does it route the packet?

- A. Null0
- B. Vlan58
- C. Vlan60
- D. Vlan59

Answer: B

NEW QUESTION 239

- (Exam Topic 4)

Which IP header field is changed by a Cisco device when QoS marking is enabled?

- A. Header Checksum
- B. Type of service
- C. DSCP
- D. ECN

Answer: B

NEW QUESTION 244

- (Exam Topic 4)

An engineer must configure a core router with a floating static default route to the backup router at 10.200.0.2.

DNS
HTTP
RTP
SMTP
SNMP
Telnet

TCP
UDP

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

DNS
HTTP
RTP
SMTP
SNMP
Telnet

TCP
HTTP
SMTP
Telnet
UDP
DNS
SNMP
RTP

NEW QUESTION 246

- (Exam Topic 4)

What must be considered for a locally switched FlexConnect AP if the VLANs that are used by the AP and client access are different?

- A. The APs must be connected to the switch with multiple links in LAG mode
- B. The switch port mode must be set to trunk

- C. The native VLAN must match the management VLAN of the AP
- D. IEEE 802.10 trunking must be disabled on the switch port.

Answer: C

NEW QUESTION 250

- (Exam Topic 4)

What is the role of nonoverlapping channels in a wireless environment?

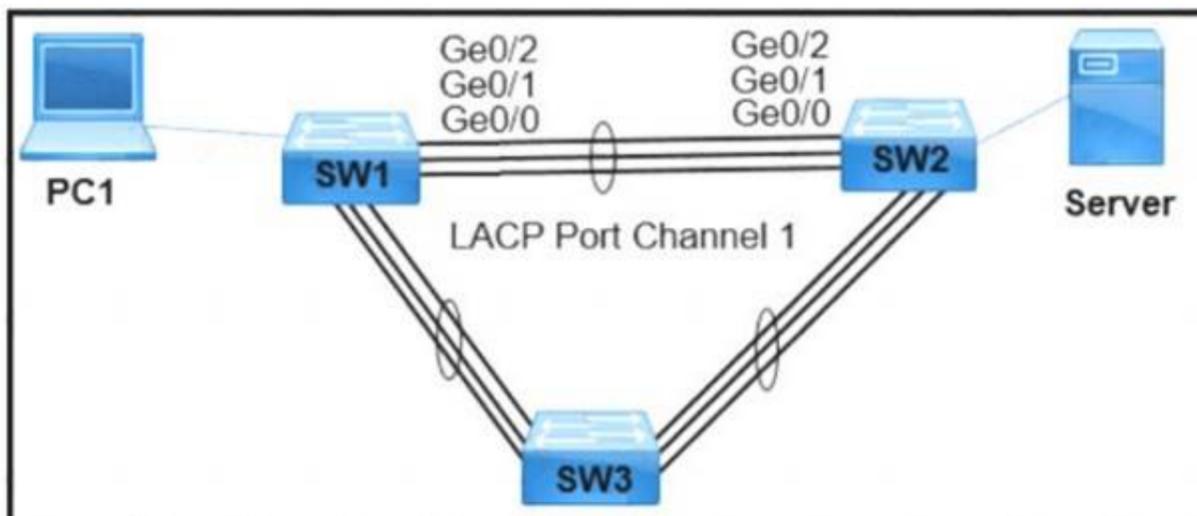
- A. to reduce interference
- B. to allow for channel bonding
- C. to stabilize the RF environment
- D. to increase bandwidth

Answer: A

NEW QUESTION 251

- (Exam Topic 4)

Refer to the exhibit.



PC1 regularly sends 1800 Mbps of traffic to the server. A network engineer needs to configure the EtherChannel to disable Port Channel 1 between SW1 and SW2 when the Ge0/0 and Ge0/1 ports on SW2 go down. Which configuration must the engineer apply to the switch?

- A)


```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# lacp port-priority 32000
```
- B)


```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# lacp max-bundle 2
```
- C)


```
SW2# configure terminal
SW2(config)# lacp system-priority 32000
```
- D)


```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# port-channel min-links 2
```

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

Answer: D

NEW QUESTION 254

- (Exam Topic 4)

Drag and drop the steps in a standard DNS lookup operation from the left into the order on the right.

An endpoint submits a request for the IP address of a domain name.	1
The DNS receives a reply from the domain DNS server.	2
The DNS responds to the endpoint.	3
The DNS submits a request to a root DNS server.	4
The DNS submits a request to the domain DNS server.	5

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

An endpoint submits a request for the IP address of a domain name.	An endpoint submits a request for the IP address of a domain name.
The DNS receives a reply from the domain DNS server.	The DNS submits a request to the domain DNS server.
The DNS responds to the endpoint.	The DNS submits a request to a root DNS server.
The DNS submits a request to a root DNS server.	The DNS receives a reply from the domain DNS server.
The DNS submits a request to the domain DNS server.	The DNS responds to the endpoint.

NEW QUESTION 256

- (Exam Topic 4)

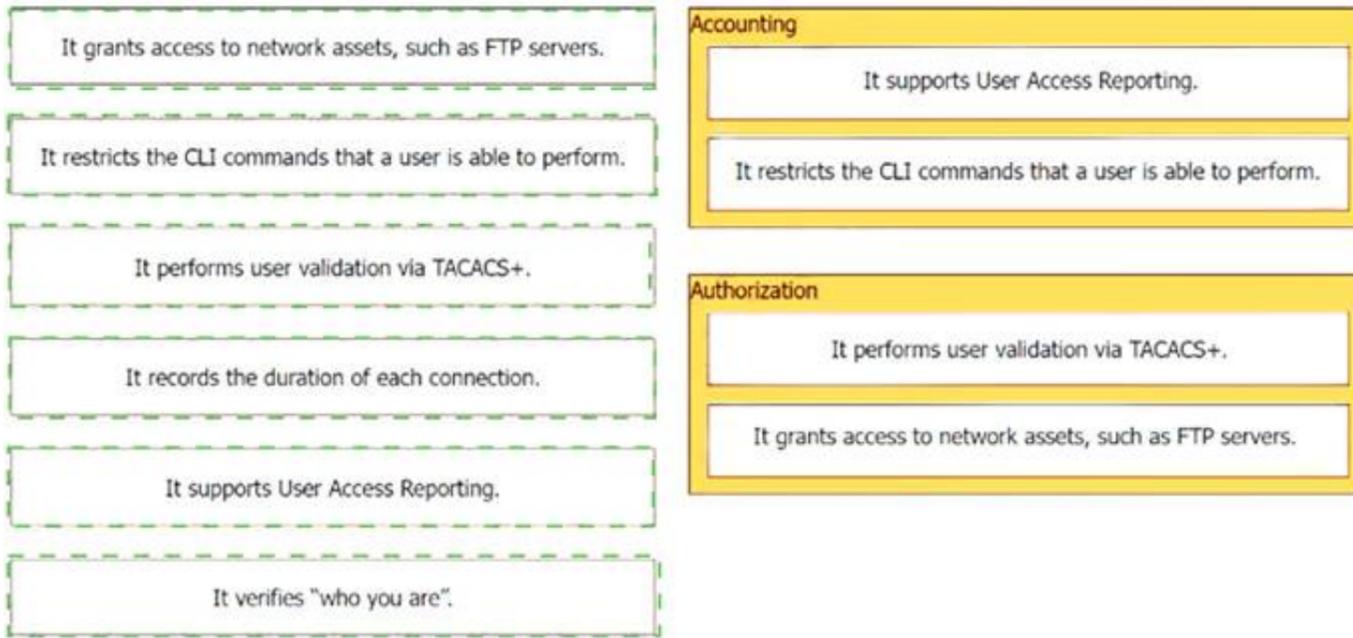
Drag and drop the statement about AAA services from the left to the corresponding AAA services on the right.

It grants access to network assets, such as FTP servers.	Accounting
It restricts the CLI commands that a user is able to perform.	
It performs user validation via TACACS+.	Authorization
It records the duration of each connection.	
It supports User Access Reporting.	
It verifies "who you are".	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 258

- (Exam Topic 4)

A network engineer is upgrading a small data center to host several new applications, including server backups that are expected to account for up to 90% of the bandwidth during peak times. The data center connects to the MPLS network provider via a primary circuit and a secondary circuit. How does the engineer inexpensively update the data center to avoid saturation of the primary circuit by traffic associated with the backups?

- A. Assign traffic from the backup servers to a dedicated switch.
- B. Configure a dedicated circuit for the backup traffic.
- C. Place the backup servers in a dedicated VLAN.
- D. Advertise a more specific route for the backup traffic via the secondary circuit.

Answer: A

NEW QUESTION 262

- (Exam Topic 4)

An engineer is configuring a switch port that is connected to a VoIP handset. Which command must the engineer configure to enable port security with a manually assigned MAC address of abcd-bod on voice VLAN 4?

- A. switchport port-security mac-address abcd.abcd.abcd
- B. switchport port-security mac-address abed.abed.abed vlan 4
- C. switchport port-security mac-address sticky abcd.abcd.abcd vlan 4
- D. switchport port-security mac-address abcd.abcd.abcd vlan voice

Answer: A

NEW QUESTION 263

- (Exam Topic 4)

Refer to the exhibit.

```

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix  :
Description . . . . . : Realtek PCIe GBE Family
Controller
Physical Address. . . . . : 3C-52-82-33-F3-8F
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . : Yes

Wireless LAN adapter Wi-Fi:
Connection-specific DNS Suffix  : arcep.se
Description . . . . . : Intel(R) Dual Band
Wireless-AC 7265
Physical Address. . . . . : C8-21-58-B4-F3-EF
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . : Yes
Link-local IPv6 Address . . . . : fe80::45a1:b3fa:2f37:bf37%2(Preferred)
IPv4 Address. . . . . : 192.168.1.226(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : October 3, 2019 12:28:08 PM
Lease Expires . . . . . : October 3, 2019 7:18:37 PM
Default Gateway . . . . . : 192.168.1.100
DHCP Server . . . . . : 192.168.1.254
DHCPv6 IAID . . . . . : 46670168
DHCPv6 Client DUID. . . . . : 00-01-00-01-20-FF-05-55-3C-52-82-33-D3-84
DNS Servers . . . . . : 192.168.1.253
NetBIOS over Tcpip. . . . . : Enabled
Connection-specific DNS Suffix Search List :
                                     arcep.se
    
```

The given Windows PC is requesting the IP address of the host at www.cisco.com. To which IP address is the request sent?

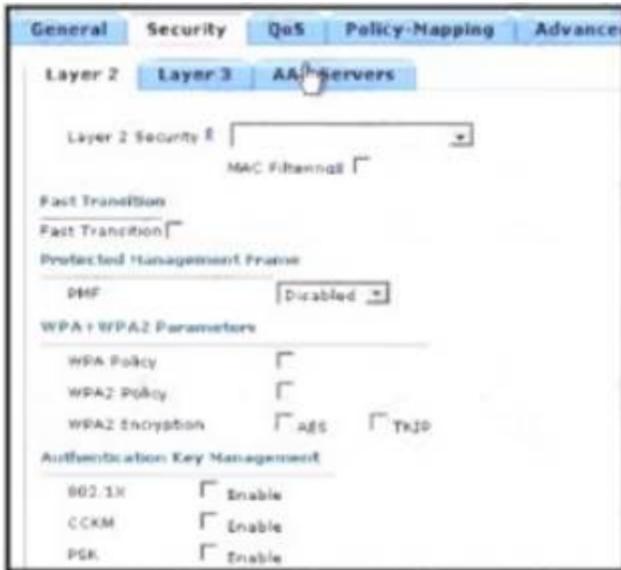
- A. 192.168.1.226
- B. 192.168.1.100
- C. 192.168.1.254
- D. 192.168.1.253

Answer: D

NEW QUESTION 267

- (Exam Topic 4)

Refer to the exhibit.



What are the two steps an engineer must take to provide the highest encryption and authentication using domain credentials from LDAP?

- A. Select PSK under Authentication Key Management
- B. Select WPA+WPA2 on Layer 2 Security
- C. Select Static-WEP + 802.1X on Layer 2 Security
- D. Select WPA Policy with TKIP Encryption
- E. Select 802.1X from under Authentication Key Management

Answer: BE

NEW QUESTION 272

- (Exam Topic 4)

Refer to the exhibit.

```
R1# show ip route
.....
D      172.16.32.0/27 [90/2888597172] via 20.1.1.1
O      172.16.32.0/19 [110/292094] via 20.1.1.10
R      172.16.32.0/24 [120/2] via 20.1.1.3
```

An engineer executed the script and added commands that were not necessary for SSH and now must remove the commands.

- A. metric
- B. cost
- C. longest prefix
- D. administrative distance

Answer: D

NEW QUESTION 273

- (Exam 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
confined to a single link	
serves as the next-hop addresses	Link-Local Address
is routable and reachable via the Internet	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 276

- (Exam Topic 4)

Drag and drop the use cases for device-management technologies from the left onto the corresponding.

overlay and underlay configuration	Cisco DNA Center
routed access deployment	
STP deployment	
VLAN and HSRP configuration	Traditional
VXLAN and LISP configuration	
configuration via console	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

overlay and underlay configuration	Cisco DNA Center
routed access deployment	
STP deployment	
VLAN and HSRP configuration	Traditional
VXLAN and LISP configuration	
configuration via console	

NEW QUESTION 278

- (Exam 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 282

- (Exam Topic 4)

Refer to the exhibit.

```
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, l - LISP
a - application route
+ - replicated route, ! - next hop override, p - overrides from PFR
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
S* 0.0.0.0/0 is directly connected, Null0
    10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C    10.0.12.0/24 is directly connected, GigabitEthernet0/1
L    10.0.12.1/32 is directly connected, GigabitEthernet0/1
C    10.0.13.0/24 is directly connected, GigabitEthernet0/2
L    10.0.13.1/32 is directly connected, GigabitEthernet0/2
C    10.0.14.0/24 is directly connected, GigabitEthernet0/3
L    10.0.14.1/32 is directly connected, GigabitEthernet0/3
D    192.168.0.0/16 [90/130816] via 10.0.13.3, 00:10:09, GigabitEthernet0/2
O    192.168.0.0/23 [110/2] via 10.0.14.4, 00:00:46, GigabitEthernet0/3
S    192.168.0.0/24 [100/0] via 10.0.12.2
```

Which interface is chosen to forward traffic to the host at 192.168.0.55?

- A. GigabitEthernet0
- B. GigabitEthernet0/1
- C. Null0
- D. GigabitEthernet0/3

Answer: B

NEW QUESTION 285

- (Exam Topic 4)

Drag and drop the characteristics of device-management technologies from the left onto the corresponding deployment types on the right.

orchestrates background device configuration	Cisco DNA Center
provides greater flexibility for custom and non-standard configurations	
relies on per-device management	
supports centralized software management	Traditional
supports open APIs	
uses individual software management	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

orchestrates background device configuration	Cisco DNA Center
provides greater flexibility for custom and non-standard configurations	
relies on per-device management	
supports centralized software management	Traditional
supports open APIs	
uses individual software management	

NEW QUESTION 288

- (Exam Topic 3)

Which QoS traffic handling technique retains excess packets in a queue and reschedules these packets for later transmission when the configured maximum bandwidth has been surpassed?

- A. weighted random early detection
- B. traffic policing
- C. traffic shaping
- D. traffic prioritization

Answer: C

NEW QUESTION 289

- (Exam 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 292

- (Exam Topic 4)

What is the function of "off-the-shell" switches in a controller-based network?

- A. providing a central view of the deployed network
- B. forwarding packets
- C. making routing decisions
- D. setting packet-handling policies

Answer: D

NEW QUESTION 295

- (Exam 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	Accounting
limits the user's access permissions	
logs session statistics	Authentication
records user commands	
secures access to routers	Authorization
validates user credentials	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

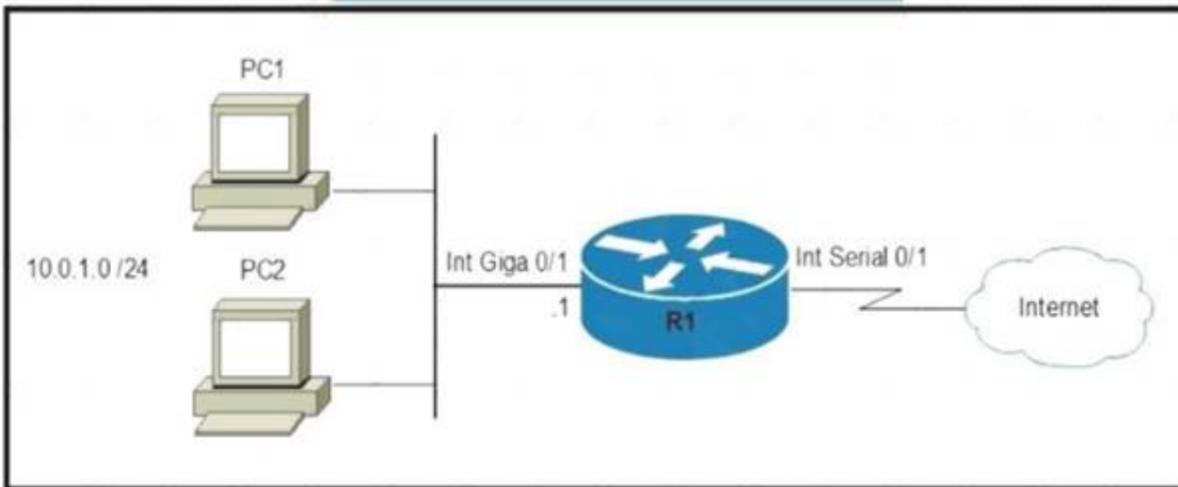
Accounting
records user commands
logs session statistics

Authentication
validates user credentials
allows the user to change to enable mode

Authorization
limits the user's access permissions
secures access to routers

NEW QUESTION 297

- (Exam Topic 3)
 Refer to the exhibit.



Which two commands must be configured on router R1 to enable the router to accept secure remote-access connections? (Choose two)

- A. transport input telnet
- B. crypto key generate rsa
- C. ip ssh pubkey-chain
- D. login console
- E. username cisco password 0 Cisco

Answer: BE

NEW QUESTION 299

- (Exam Topic 3)
 Drag and drop the statements about networking from the left onto the corresponding networking types on the right.

This type allows better control over how networks work and how networks are configured.	Traditional Networking
This type enables networks to integrate with applications through APIs.	
New devices are configured using the physical infrastructure.	Controller-Based Networking
This type provisions resources from a centralized location.	
This type requires a distributed control plane.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A picture containing table Description automatically generated

NEW QUESTION 301

- (Exam Topic 3)

Drag and drop the Rapid PVST+ forwarding slate actions from the left to the right. Not all actions are used.

BPDUs received are forwarded to the system module.	action
BPDUs received from the system module are processed and transmitted.	action
Frames received from the attached segment are discarded.	action
Frames received from the attached segment are processed.	action
Switched frames received from other ports are advanced.	
The port in the forwarding state responds to network management messages.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 306

- (Exam Topic 3)

Refer to the exhibit.

```

SW1#show run
Building configuration...
!
interface FastEthernet0/1
 switchport access vlan 2
 switchport mode access
!
interface FastEthernet0/2
 switchport access vlan 2
 switchport trunk allowed vlan 3
 switchport mode trunk
  
```

```

SW1#show mac-address-table
Mac Address Table
-----
Vlan    Mac Address      Type        Ports
----    -
2       0007.ec53.4289   DYNAMIC     Fa0/1
  
```

An engineer has started to configure replacement switch SW1. To verify part of the configuration, the engineer issued the commands as shown and noticed that the entry for PC2 is missing. Which change must be applied to SW1 so that PC1 and PC2 communicate normally?

- A)

```
SW1(config)#interface fa0/2
SW1(config-if)#no switchport mode trunk
SW1(config-if)#no switchport trunk allowed vlan 3
SW1(config-if)#switchport mode access
```

B)

```
SW1(config)#interface fa0/1
SW1(config-if)#no switchport access vlan 2
SW1(config-if)#switchport trunk native vlan 2
SW1(config-if)#switchport trunk allowed vlan 3
```

C)

```
SW1(config)#interface fa0/1
SW1(config-if)#no switchport access vlan 2
SW1(config-if)#switchport access vlan 3
SW1(config-if)#switchport trunk allowed vlan 2
```

D)

```
SW1(config)#interface fa0/2
SW1(config-if)#no switchport access vlan 2
SW1(config-if)#no switchport trunk allowed vlan 3
SW1(config-if)#switchport trunk allowed vlan 2
```

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

Answer: A

NEW QUESTION 308

- (Exam Topic 3)

Refer to the exhibit.

```
service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption
!
hostname R4
!
boot-start-marker
boot-end-marker
!
ip cef
!
interface FastEthernet0/0
description WAN_INTERFACE
ip address 10.0.1.2 255.255.255.252
ip access-group 100 in
!
interface FastEthernet0/1
description LAN_INTERFACE
ip address 10.148.2.1 255.255.255.0
duplex auto
speed auto
!
ip forward-protocol nd
!
access-list 100 permit eigrp any any
access-list 100 permit icmp any any
access-list 100 permit tcp 10.149.3.0 0.0.0.255 host 10.0.1.2 eq 22
access-list 100 permit tcp any any eq 80
access-list 100 permit tcp any any eq 443
access-list 100 deny ip any any log
```

Which configuration enables DHCP addressing for hosts connected to interface FastEthernetO/1 on router R4?

- A. interface FastEthernet0/0 ip helper-address 10.0.1.1 iaccess-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1
- B. interface FastEthernet0/1 ip helper-address 10.0.1.1!access-list 100 permit tcp host 10.0.1.1 eq 67 host 10.148.2.1
- C. interface FastEthernetO/0 ip helper-address 10.0.1.1 laccess-list 100 permit host 10.0.1.1 host 10.148.2.1 eq bootps
- D. interface FastEthernet0/1 ip helper-address 10.0.1.1!access-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1

Answer: B

NEW QUESTION 312

- (Exam Topic 3)

A network engineer must configure two new subnets using the address block 10.70.128.0/19 to meet these requirements:

- The first subnet must support 24 hosts
- The second subnet must support 472 hosts
- Both subnets must use the longest subnet mask possible from the address block

Which two configurations must be used to configure the new subnets and meet a requirement to use the first available address in each subnet for the router interfaces? (Choose two)

- A. interface vlan 1234 ip address 10.70.159.1 255.255.254.0
- B. interface vlan 1148 ip address 10.70.148.1 255.255.254.0
- C. interface vlan 4722 ip address 10.70.133.17 255.255.255.192
- D. interface vlan 3002 ip address 10.70.147.17 255.255.255.224

E. interface vlan 155ip address 10.70.155.65 255.255.255.224

Answer: BD

NEW QUESTION 317

- (Exam Topic 3)

Which action implements physical access control as part of the security program of an organization?

- A. configuring a password for the console port
- B. backing up syslogs at a remote location
- C. configuring enable passwords on network devices
- D. setting up IP cameras to monitor key infrastructure

Answer: A

NEW QUESTION 322

- (Exam 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

event correlation and aggregation
fault detection
fault diagnosis and isolation
problem resolution
restoration of service

NEW QUESTION 327

- (Exam Topic 3)

Which wireless security protocol relies on Perfect Forward Secrecy?

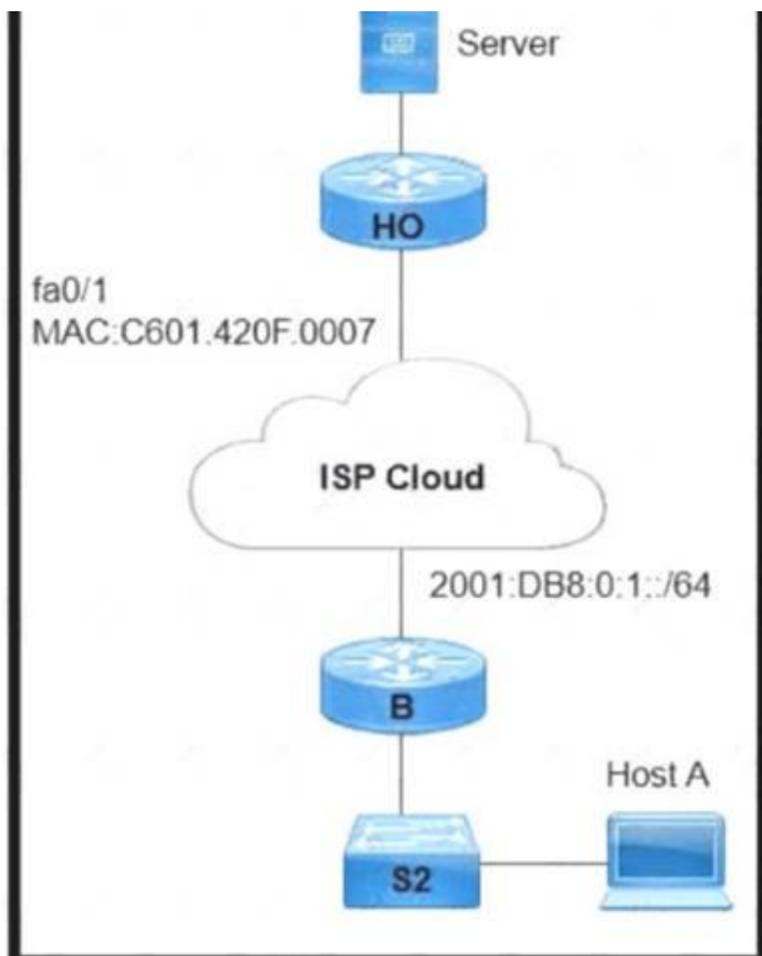
- A. WPA3
- B. WPA
- C. WEP
- D. WPA2

Answer: A

NEW QUESTION 332

- (Exam Topic 3)

Refer to the exhibit.



An engineer is configuring the HO router. Which IPv6 address configuration must be applied to the router fa0/1 interface for the router to assign a unique 64-bit IPv6 address to itself?

- A. ipv6 address 2001:DB8:0:1:C601:42FF:FE0F:7/64
- B. ipv6 address 2001:DB8:0:1:C601:42FE:800F:7/64
- C. ipv6 address 2001 :DB8:0:1:FFFF:C601:420F:7/64
- D. iov6 address 2001 :DB8:0:1:FE80:C601:420F:7/64

Answer: A

NEW QUESTION 335

- (Exam Topic 3)

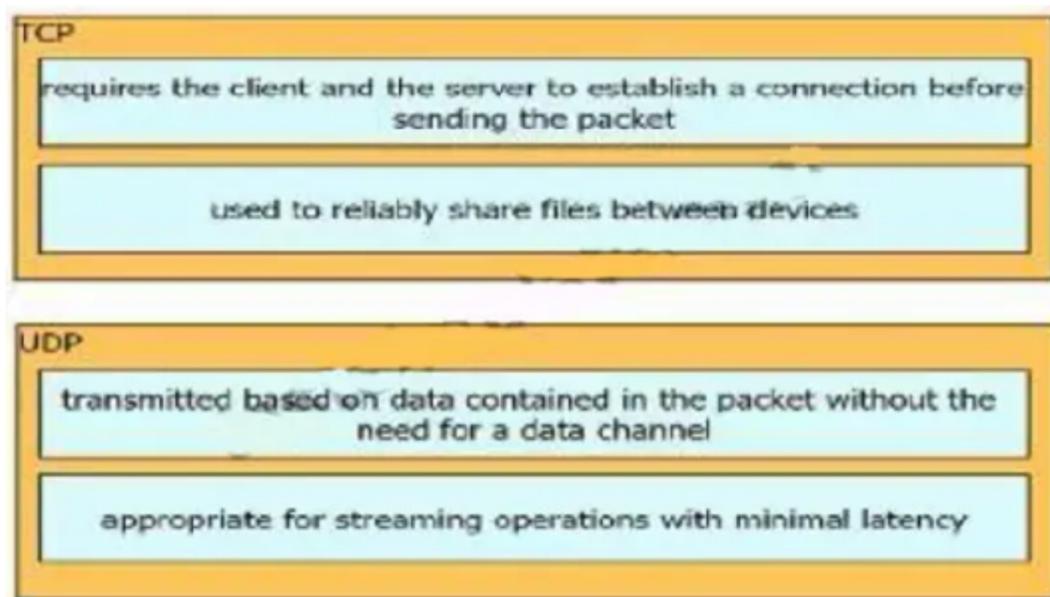
Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

transmitted based on data contained in the packet without the need for a data channel	TCP
requires the client and the server to establish a connection before sending the packet	
used to reliably share files between devices	UDP
appropriate for streaming operations with minimal latency	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 339

- (Exam Topic 3)

How does Rapid PVST+ create a fast loop-free network topology?

- A. It requires multiple links between core switches
- B. It generates one spanning-tree instance for each VLAN
- C. It maps multiple VLANs into the same spanning-tree instance
- D. It uses multiple active paths between end stations.

Answer: A

NEW QUESTION 343

- (Exam Topic 3)

What is one reason to implement LAG on a Cisco WLC?

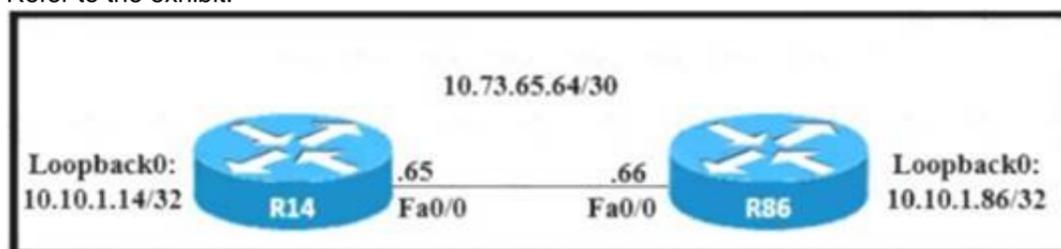
- A. to increase security and encrypt management frames
- B. to provide link redundancy and load balancing
- C. to allow for stateful and link-state failover
- D. to enable connected switch ports to failover and use different VLANs

Answer: B

NEW QUESTION 345

- (Exam Topic 3)

Refer to the exhibit.



A static route must be configured on R14 to forward traffic for the 172.21.34.0/25 network that resides on R86. Which command must be used to fulfill the request?

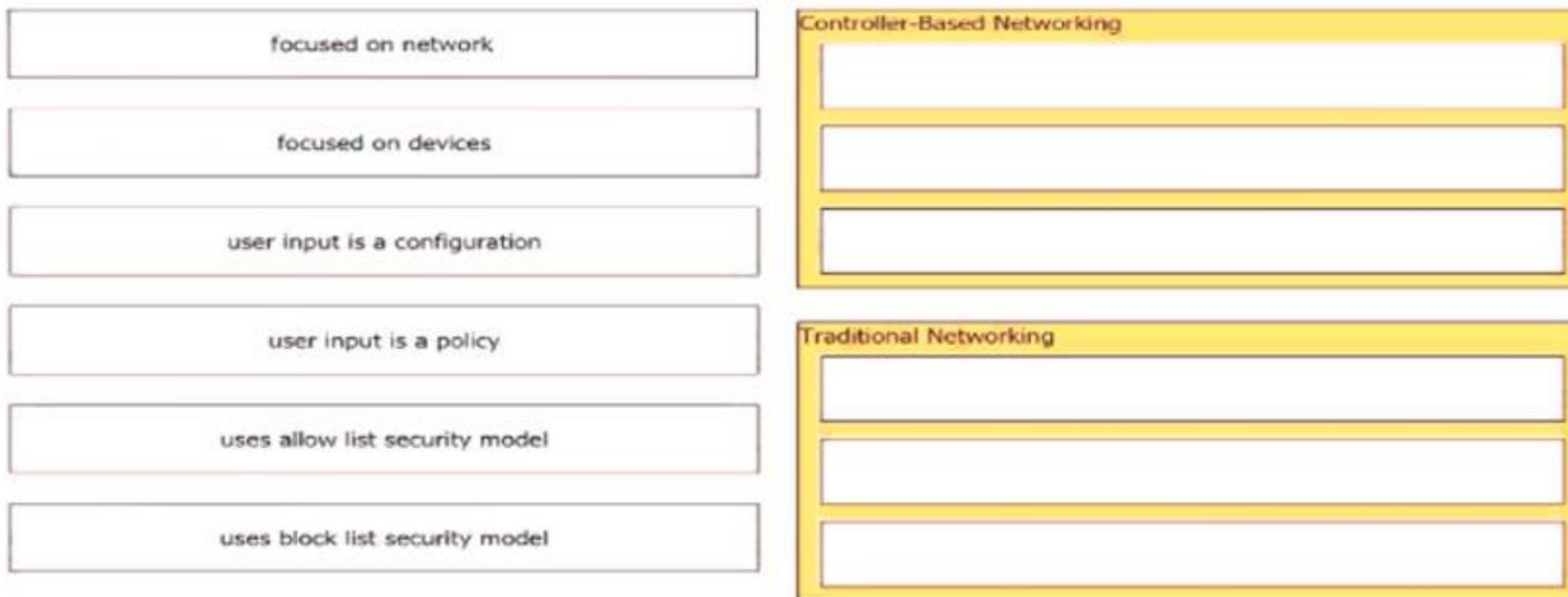
- A. ip route 172.21.34.0 255.255.255.192 10.73.65.65
- B. ip route 172.21.34.0 255.255.255.0 10.73.65.65
- C. ip route 172.21.34.0 255.255.128.0 10.73.65.64
- D. ip route 172.21.34.0 255.255.255.128 10.73.65.66

Answer: D

NEW QUESTION 347

- (Exam Topic 3)

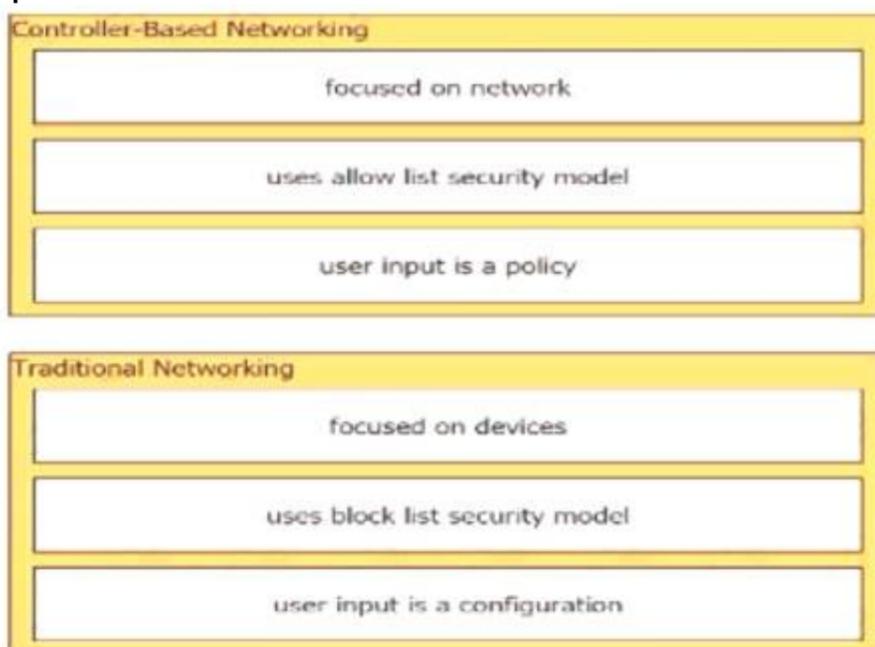
Drag and drop the characteristics of networking from the left onto the networking types on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 348

- (Exam Topic 3)
 Refer to the exhibit.

```
TenGigabitEthernet0/0/0 is up, line protocol is up
Hardware is BUILT-IN-2T+6X1GE, address is 74a0.2f7a.0123 (bia 74a0.2f7a.0123)
Description: Uplink
Internet address is 10.1.1.1/24
MTU 1500 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Full Duplex, 10000Mbps, link type is force-up, media type is unknown media type
output flow-control is on, input flow-control is on
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:00, output 00:05:40, 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 6160000 bits/sec, 1113 packets/sec
5 minute output rate 11213000 bits/sec, 1553 packets/sec
 12662416065 packets input, 12607032232894 bytes, 0 no buffer
    Received 14117163 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 watchdog, 26271385 multicast, 0 pause input
7907779058 packets output, 5073750426832 bytes, 0 underruns
 0 output errors, 8662416065 collisions, 1 interface resets
 0 unknown protocol drops
 0 babbles, 0 late collision, 0 deferred
 0 lost carrier, 0 no carrier, 0 pause output
 0 output buffer failures, 0 output buffers swapped out
 1 carrier transitions
```

Traffic that is flowing over interface TenGigabitEthernet0/0 experiences slow transfer speeds. What is the reason for the issue?

- A. heavy traffic congestion
- B. a duplex incompatibility
- C. a speed conflict
- D. queuing drops

Answer: C

NEW QUESTION 349

- (Exam Topic 3)

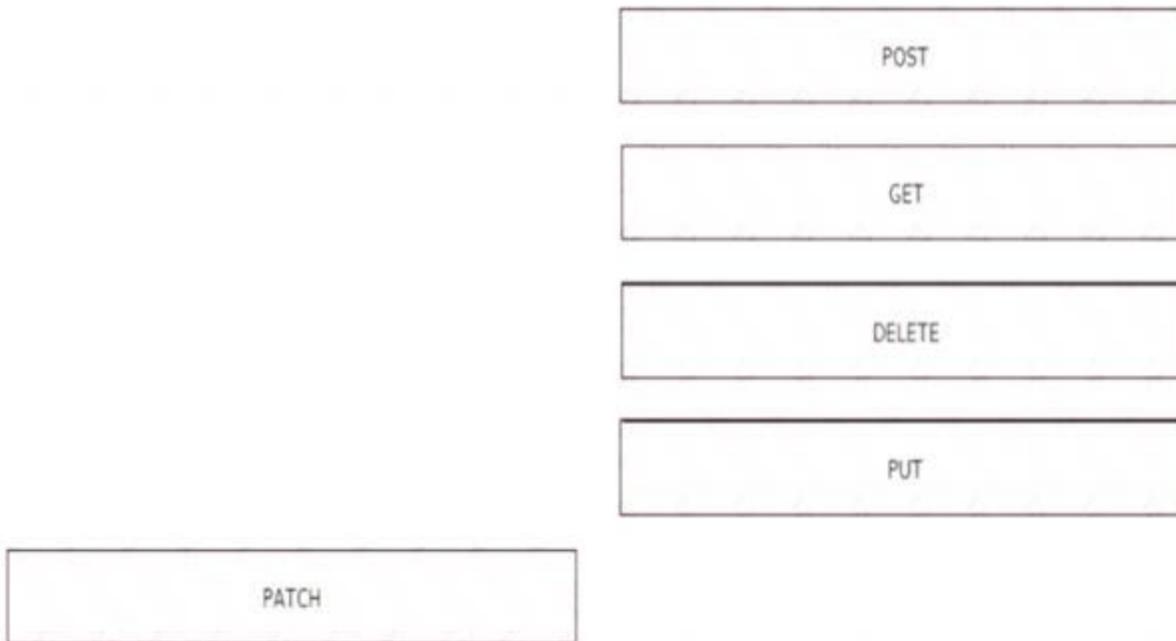
Drag and drop the REST API call methods for HTTP from the left onto the actions they perform on the right Not all methods are used.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Chart, bar chart Description automatically generated



NEW QUESTION 351

- (Exam Topic 3)

Refer to the exhibit.

```

209.165.201.0/27 is subnetted, 1 subnets
B 209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
209.165.202.0/27 is subnetted, 1 subnets
B 209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
10.0.0.0/8 is variably subnetted, 8 subnets, 4 masks
C 10.10.10.0/28 is directly connected, GigabitEthernet0/0
C 10.10.11.0/30 is directly connected, FastEthernet2/0
C 10.10.12.0/30 is directly connected, GigabitEthernet0/1
O 10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.128/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.144/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.160/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.208/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
S* 0.0.0.0/0 [1/0] via 10.10.11.2
    
```

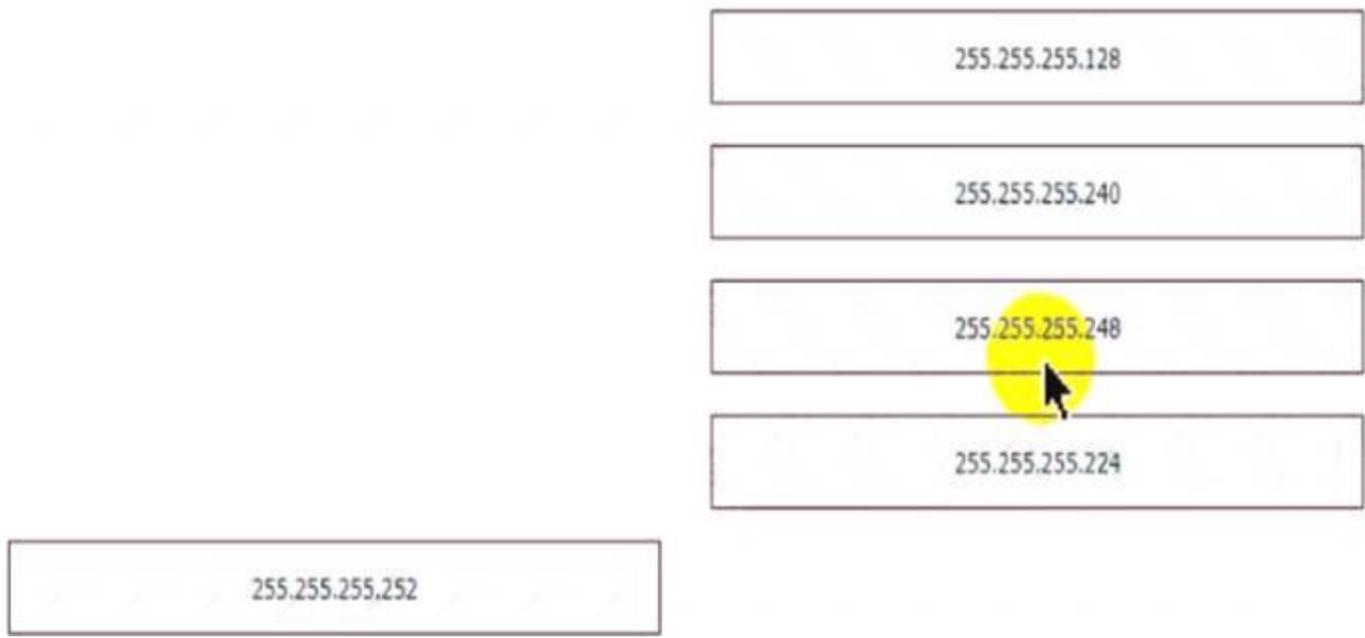
Drag and drop the prefix lengths from the left onto the corresponding prefixes on the right Not all prefixes are used

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Diagram Description automatically generated with low confidence



NEW QUESTION 353

- (Exam Topic 3)

A network engineer is installing an IPv6-only capable device. The client has requested that the device IP address be reachable only from the internal network. Which type of IPv6 address must the engineer assign?

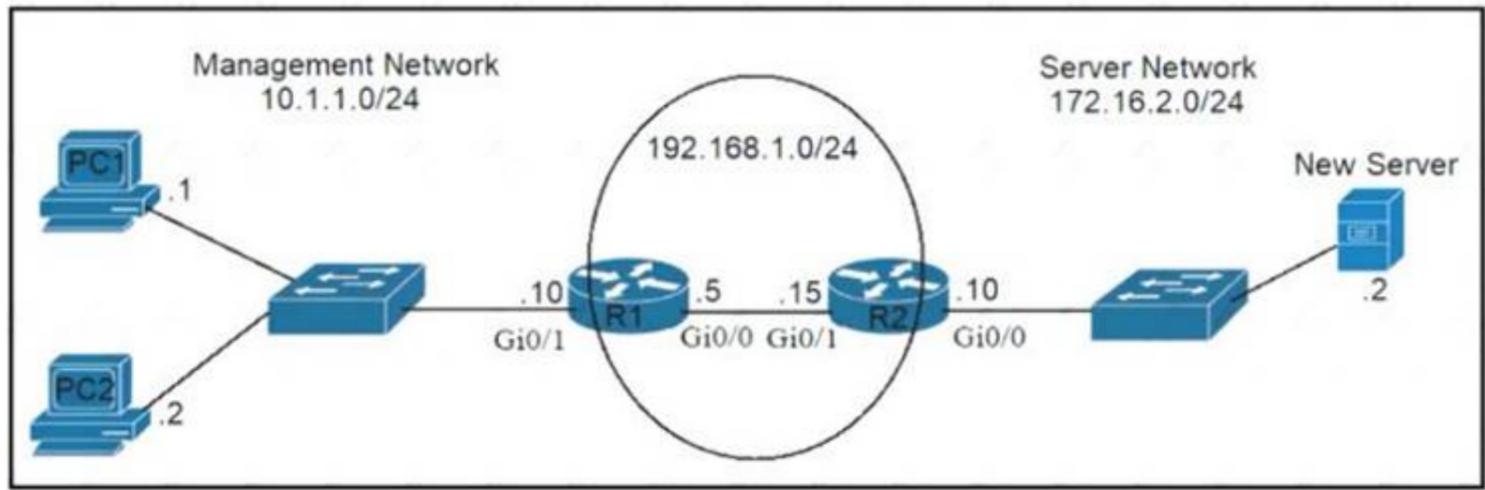
- A. unique local address
- B. link-local address
- C. aggregatable global address
- D. IPv4-compatible IPv6 address

Answer: B

NEW QUESTION 354

- (Exam Topic 3)

Refer to the exhibit.



An engineer is updating the R1 configuration to connect a new server to the management network. The PCs on the management network must be blocked from pinging the default gateway of the new server. Which command must be configured on R1 to complete the task?

- A. R1(config)#ip route 172.16.2.2 255.255.255.248 gi0/1
- B. R1(config)#ip route 172.16.2.2 255.255.255.255 gi0/0
- C. R1(config)#ip route 172.16.2.0 255.255.255.0 192.168.1.15
- D. R1(config)#ip route 172.16.2.0 255.255.255.0 192.168.1.5

Answer: C

NEW QUESTION 357

- (Exam Topic 3)

What is the function of the controller in a software-defined network?

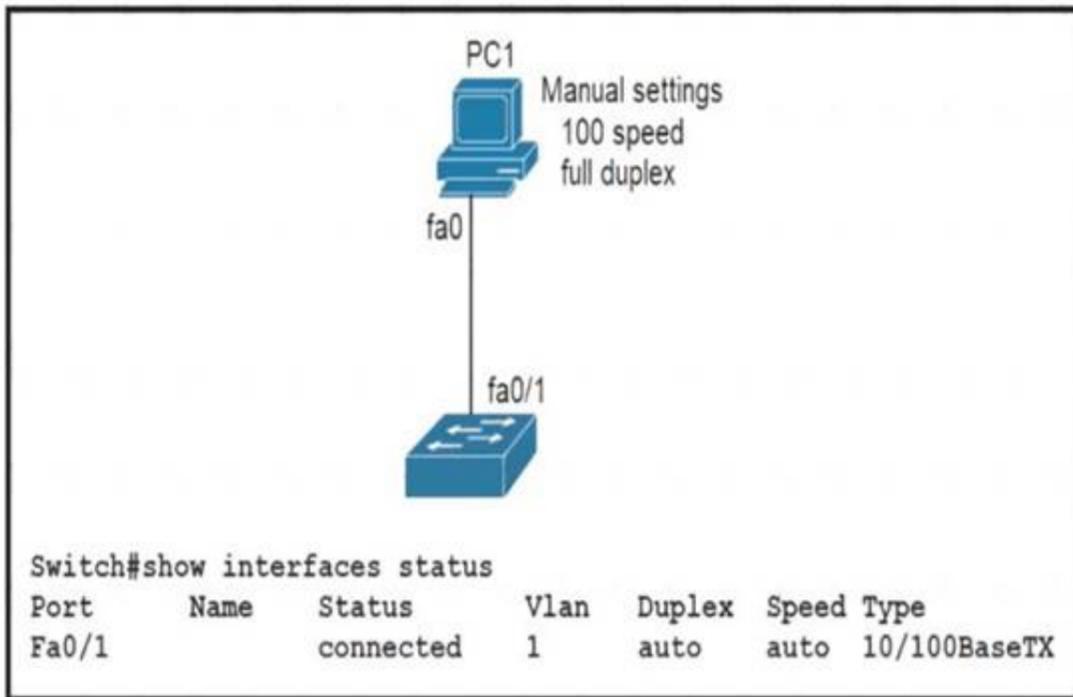
- A. multicast replication at the hardware level
- B. fragmenting and reassembling packets
- C. making routing decisions
- D. forwarding packets

Answer: C

NEW QUESTION 359

- (Exam Topic 3)

Refer to the exhibit.



The link between PC1 and the switch is up, but it is performing poorly. Which interface condition is causing the performance problem?

- A. There is a duplex mismatch on the interface
- B. There is an issue with the fiber on the switch interface.
- C. There is a speed mismatch on the interface.
- D. There is an interface type mismatch

Answer: A

NEW QUESTION 364

- (Exam 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 368

- (Exam Topic 3)

Which protocol uses the SSL?

- A. HTTP

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

Answer: C

NEW QUESTION 372

- (Exam Topic 3)
 Refer to the exhibit.

EIGRP	10.10.10.0/24[90/1441]	via	F0/10
EIGRP	10.10.10.0/24[90/144]	via	F0/11
EIGRP	10.10.10.0/24[90/1441]	via	F0/12
OSPF	10.10.10.0/24[110/20]	via	F0/13
OSPF	10.10.10.0/24[110/30]	via	F0/14

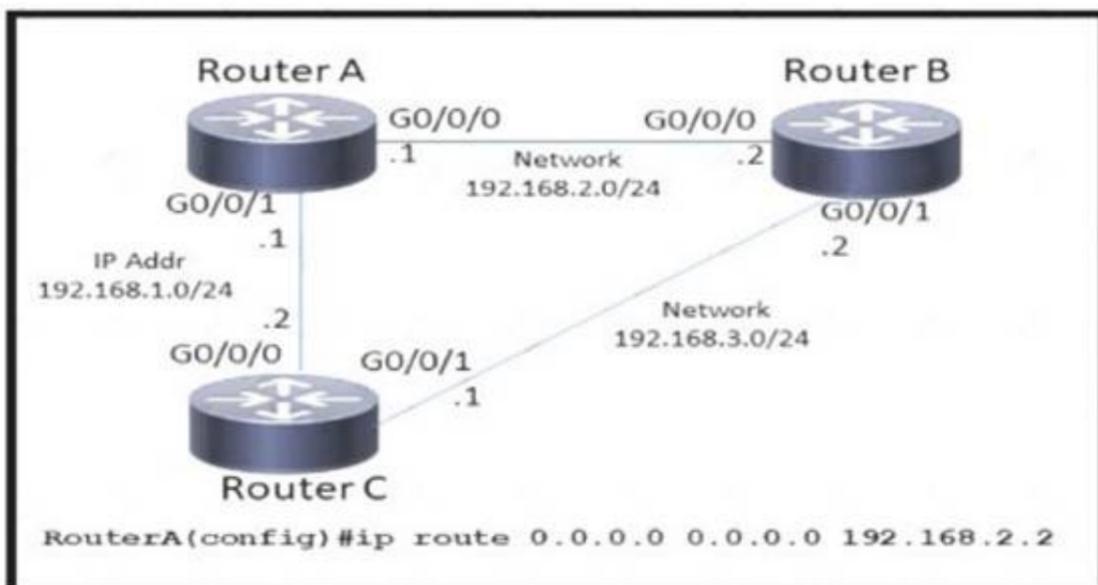
Packets received by the router from BGP enter via a serial interface at 209.165.201.10. Each route is present within the routing table. Which interface is used to forward traffic with a destination IP of 10.10.10.24?

- A. F0/10
- B. F0/11
- C. F0/12
- D. F0/13

Answer: B

NEW QUESTION 374

- (Exam Topic 3)
 Refer to the exhibit.



Which command must be issued to enable a floating static default route on router A?

- A. ip route 0.0.0.0 0.0.0.0 192.168.1.2
- B. ip default-gateway 192.168.2.1
- C. ip route 0.0.0.0 0.0.0.0 192.168.2.1 10
- D. ip route 0.0.0.0 0.0.0.0 192.168.1.2 10

Answer: D

NEW QUESTION 375

- (Exam Topic 2)
 What is a role of access points in an enterprise network?

- A. connect wireless devices to a wired network
- B. support secure user logins to devices or the network
- C. integrate with SNMP in preventing DDoS attacks
- D. serve as a first line of defense in an enterprise network

Answer: A

NEW QUESTION 377

- (Exam 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 378

- (Exam Topic 2)

Which two QoS tools provides congestion management? (Choose two)

- A. CAR
- B. CBWFQ
- C. PQ
- D. PBR
- E. FRTS

Answer: BC

Explanation:

Type of queuing methods are available:• First-In-First-Out (FIFO)• Priority Queuing (PQ)• Custom Queuing (CQ)• Weighted Fair Queuing (WFQ)• Class-Based Weighted Fair Queuing (CBWFQ)• Low-Latency Queuing (LLQ)

<https://www.orbit-computer-solutions.com/qos-congestion-management-tools/>

NEW QUESTION 381

- (Exam Topic 2)

Refer to the exhibit.

```

10.0.0.0/24 is subnetted, 1 subnets
C       10.0.0.0 is directly connected, FastEthernet0/1
C       172.160.0/16 is directly connected, FastEthernet0/0
D       192.168.0.0/24 [90/30720] via 172.16.0.2, 00:00:03, FastEthernet0/0
    
```

Which route type does the routing protocol Code D represent in the output?

- A. internal BGP route
- B. /24 route of a locally configured IP
- C. statically assigned route
- D. route learned through EIGRP

Answer: D

NEW QUESTION 385

- (Exam Topic 2)

What is the primary different between AAA authentication and authorization?

- A. Authentication verifies a username and password, and authorization handles the communication between the authentication agent and the user database.
- B. Authentication identifies a user who is attempting to access a system, and authorization validates the users password
- C. Authentication identifies and verifies a user who is attempting to access a system, and authorization controls the tasks the user can perform.
- D. Authentication controls the system processes a user can access and authorization logs the activities the user initiates

Answer: C

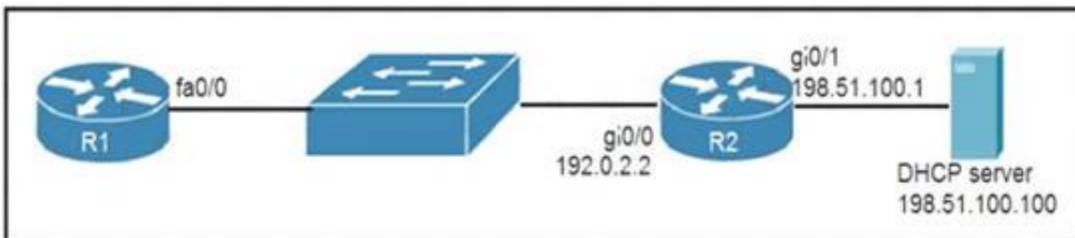
Explanation:

AAA stands for Authentication, Authorization and Accounting.+ Authentication: Specify who you are (usually via login username & password)+ Authorization: Specify what actions you can do, what resource you can access+ Accounting: Monitor what you do, how long you do it (can be used for billing and auditing)An example of AAA is shown below:+ Authentication: "I am a normal user. My username/password is user_tom/learnforever"+ Authorization: "user_tom can access LearnCCNA server via HTTP and FTP"+ Accounting: "user_tom accessed LearnCCNA server for 2 hours". This user only uses "show" commands.

NEW QUESTION 389

- (Exam Topic 2)

Refer to the exhibit.



An engineer deploys a topology in which R1 obtains its IP configuration from DHCP. If the switch and DHCP server configurations are complete and correct. Which two sets of commands must be configured on R1 and R2 to complete the task? (Choose two)

- A. R1(config)# interface fa0/0R1(config-if)# ip helper-address 198.51.100.100
- B. R2(config)# interface gi0/0R2(config-if)# ip helper-address 198.51.100.100
- C. R1(config)# interface fa0/0 R1(config-if)# ip address dhcp R1(config-if)# no shutdown
- D. R2(config)# interface gi0/0 R2(config-if)# ip address dhcp
- E. R1(config)# interface fa0/0R1(config-if)# ip helper-address 192.0.2.2

Answer: BC

NEW QUESTION 391

- (Exam 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 392

- (Exam Topic 2)

What benefit does controller-based networking provide versus traditional networking?

- A. moves from a two-tier to a three-tier network architecture to provide maximum redundancy
- B. provides an added layer of security to protect from DDoS attacks
- C. allows configuration and monitoring of the network from one centralized port
- D. combines control and data plane functionality on a single device to minimize latency

Answer: C

NEW QUESTION 395

- (Exam Topic 2)

What are two reasons that cause late collisions to increment on an Ethernet interface? (Choose two)

- A. when the sending device waits 15 seconds before sending the frame again
- B. when the cable length limits are exceeded
- C. when one side of the connection is configured for half-duplex
- D. when Carrier Sense Multiple Access/Collision Detection is used
- E. when a collision occurs after the 32nd byte of a frame has been transmitted

Answer: BC

Explanation:

The usual possible causes are full-duplex/half-duplex mismatch, exceeded Ethernet cable length limits, or defective hardware such as incorrect cabling, non-compliant number of hubs in the network, or a bad NIC.

NEW QUESTION 396

- (Exam Topic 2)

Refer to the exhibit.

```
SW1#show run int gig 0/1
interface GigabitEthernet0/1
  switchport access vlan 11
  switchport trunk allowed vlan 1-10
  switchport trunk encapsulation dot1q
  switchport trunk native vlan 5
  switchport mode trunk
  speed 1000
  duplex full
```

Which action is expected from SW1 when the untagged frame is received on the GigabitEthernet0/1 interface?

- A. The frame is processed in VLAN 5.
- B. The frame is processed in VLAN 11
- C. The frame is processed in VLAN 1
- D. The frame is dropped

Answer: A

NEW QUESTION 400

- (Exam 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 405

- (Exam Topic 2)

Which two outcomes are predictable behaviors for HSRP? (Choose two)

- A. The two routers share a virtual IP address that is used as the default gateway for devices on the LAN.
- B. The two routers negotiate one router as the active router and the other as the standby router
- C. Each router has a different IP address both routers act as the default gateway on the LAN, and traffic is load balanced between them.
- D. The two routers synchronize configurations to provide consistent packet forwarding
- D. The two routers share the same IP address, and default gateway traffic is load-balanced between them

Answer: AB

NEW QUESTION 410

- (Exam Topic 2)

A corporate office uses four floors in a building

- Floor 1 has 24 users
- Floor 2 has 29 users
- Floor 3 has 28 users
- Floor 4 has 22 users

Which subnet summarizes and gives the most efficient distribution of IP addresses for the router configuration?

- A. 192.168.0.0/26 as summary and 192.168.0.0/29 for each floor
- B. 192.168.0.0/24 as summary and 192.168.0.0/28 for each floor
- C. 192.168.0.0/23 as summary and 192.168.0.0/25 for each floor
- D. 192.168.0.0/25 as summary and 192.168.0.0/27 for each floor

Answer: D

NEW QUESTION 415

- (Exam Topic 2)

A network engineer must configure the router R1 GigabitEthernet1/1 interface to connect to the router R2 GigabitEthernet1/1 interface. For the configuration to be applied the engineer must compress the address 2001:0db8:0000:0000:0500:000a:400F:583B. Which command must be issued on the interface?

- A. ipv6 address 2001:0db8::5: a: 4F 583B
- B. ipv6 address 2001:db8::500:a:400F:583B
- C. ipv6 address 2001 db8:0::500:a:4F:583B
- D. ipv6 address 2001::db8:0000::500:a:400F:583B

Answer: B

NEW QUESTION 420

- (Exam Topic 2)

What are two characteristics of an SSID? (Choose Two)

- A. It can be hidden or broadcast in a WLAN
- B. It uniquely identifies an access point in a WLAN
- C. It uniquely identifies a client in a WLAN
- D. It is at most 32 characters long.
- E. It provides secured access to a WLAN

Answer: BE

NEW QUESTION 424

- (Exam Topic 2)

Which mode must be set for APs to communicate to a Wireless LAN Controller using the Control and Provisioning of Wireless Access Points (CAPWAP) protocol?

- A. bridge
- B. route
- C. autonomous
- D. lightweight

Answer: D

NEW QUESTION 429

- (Exam Topic 2)

Refer to the exhibit.

```
R2#show ip route
C    192.168.1.0/26 is directly connected, FastEthernet0/1
```

Which two prefixes are included in this routing table entry? (Choose two.)

- A. 192.168.1.17
- B. 192.168.1.61

- C. 192.168.1.64
- D. 192.168.1.127
- E. 192.168.1.254

Answer: BC

NEW QUESTION 430

- (Exam Topic 2)

What is the primary function of a Layer 3 device?

- A. to analyze traffic and drop unauthorized traffic from the Internet
- B. to transmit wireless traffic between hosts
- C. to pass traffic between different networks
- D. forward traffic within the same broadcast domain

Answer: C

NEW QUESTION 431

- (Exam Topic 2)

What is the expected outcome when an EUI-64 address is generated?

- A. The seventh bit of the original MAC address of the interface is inverted
- B. The interface ID is configured as a random 64-bit value
- C. The characters FE80 are inserted at the beginning of the MAC address of the interface
- D. The MAC address of the interface is used as the interface ID without modification

Answer: A

NEW QUESTION 435

- (Exam Topic 2)

How does the dynamically-learned MAC address feature function?

- A. The CAM table is empty until ingress traffic arrives at each port
- B. Switches dynamically learn MAC addresses of each connecting CAM table.
- C. The ports are restricted and learn up to a maximum of 10 dynamically-learned addresses
- D. It requires a minimum number of secure MAC addresses to be filled dynamically

Answer: A

NEW QUESTION 437

- (Exam Topic 2)

Refer to the exhibit.

```
R1#show ip route
#output suppressed

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

C    172.16.1.128/25 is directly connected, GigabitEthernet1/1/0
C    192.168.12.0/24 is directly connected, FastEthernet0/0
C    192.168.13.0/24 is directly connected, FastEthernet0/1
C    192.168.14.0/24 is directly connected, FastEthernet1/0
C    172.16.16.1 is directly connected, Loopback1
     192.168.10.0/24 is variably subnetted, 3 subnets, 3 masks
O    192.168.10.0.24 [110/2] via 192.168.14.4, 00:02:01, FastEthernet1/0
O    192.168.10.32/27 [110/11] via 192.168.13.3, 00:00:52, FastEthernet0/1
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet1/1
D    192.168.10.1/32 [90/52778] via 192.168.12.2, 00:03:44, FastEthernet0/0
O*E2 0.0.0.0/0 [110/1] via 192.168.14.4, 00:00:10, FastEthernet1/0
```

If R1 receives a packet destined to 172.161.1, to which IP address does it send the packet?

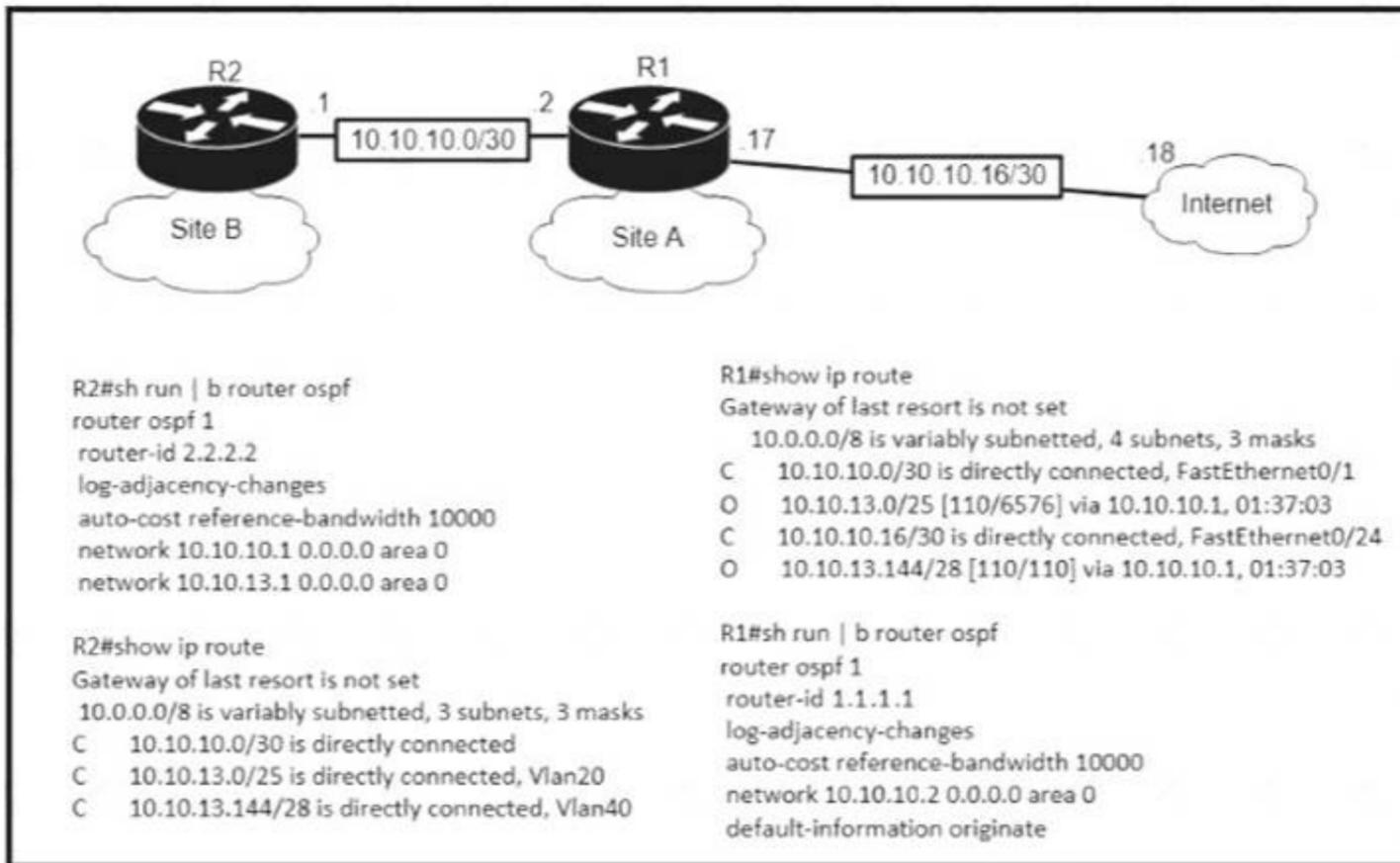
- A. 192.168.12.2
- B. 192.168.13.3
- C. 192.168.14.4
- D. 192.168.15.5

Answer: C

NEW QUESTION 439

- (Exam 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?

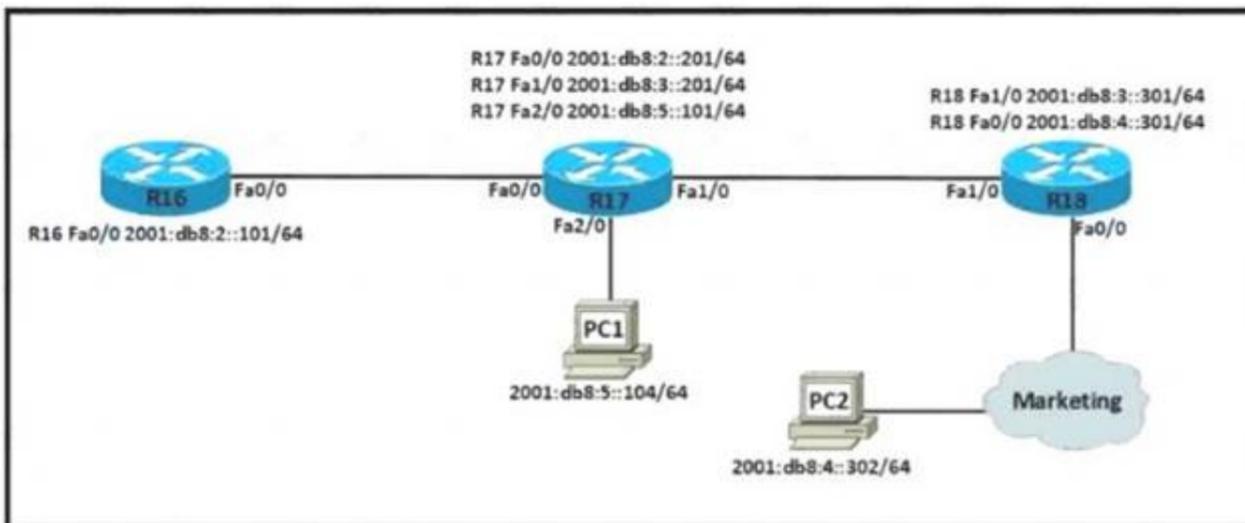
- A. Traffic to 10.10.13.0/25 is load balanced out of multiple interfaces
- B. Route 10.10.13.0/25 is updated in the routing table as being learned from interface Gi0/1.
- C. Traffic to 10.10.13.0/25 is asymmetrical
- D. Route 10.10.13.0/25 learned via the Gi0/0 interface remains in the routing table

Answer: D

NEW QUESTION 442

- (Exam 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

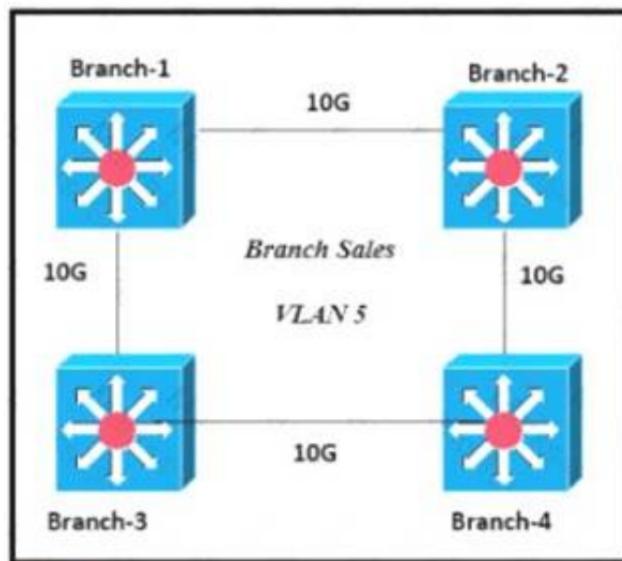
Explanation:

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 446

- (Exam Topic 2)

Refer to the exhibit.



Only four switches are participating in the VLAN spanning-tree process.

Branch-1 priority 614440

Branch-2: priority 39082416

Branch-3: priority 0

Branch-4: root primary

Which switch becomes the permanent root bridge for VLAN 5?

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

Answer: C

Explanation:

Dynamic ARP inspection is an ingress security feature; it does not perform any egress checking.

NEW QUESTION 449

- (Exam 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 451

- (Exam 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 453

- (Exam 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, 2 subnets, 2 masks
S   172.16.3.0/24 [1/0] via 209.165.200.250, Serial0/0/0
O   172.16.3.0/28 [110/1] via 209.165.200.254, 00:00:28, Serial0/0/1
    209.165.200.0/24 is variably subnetted, 6 subnets, 2 masks
C   209.165.200.244/30 is directly connected, Serial0/1/0
L   209.165.200.245/32 is directly connected, Serial0/1/0
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
```

A packet is being sent across router R1 to host 172.16.0.14. What is the destination route for the packet?

- A. 209.165.200.254 via Serial0/0/1
- B. 209.165.200.254 via Serial0/0/0
- C. 209.165.200.246 via Serial0/1/0
- D. 209.165.200.250 via Serial0/0/0

Answer: A

NEW QUESTION 455

- (Exam Topic 2)

While examining excessive traffic on the network, it is noted that all incoming packets on an interface appear to be allowed even though an IPv4 ACL is applied to the interface.

Which two misconfigurations cause this behavior? (Choose two)

- A. The packets fail to match any permit statement
- B. A matching permit statement is too high in the access test
- C. A matching permit statement is too broadly defined
- D. The ACL is empty
- E. A matching deny statement is too high in the access list

Answer: BC

NEW QUESTION 460

- (Exam 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?

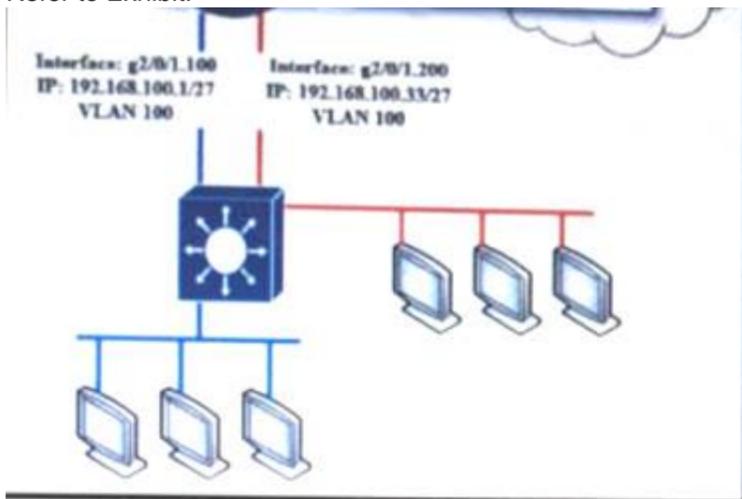
- A. Enable Security Association Teardown Protection and set the SA Query timeout to 10
- B. Enable MAC filtering and set the SA Query timeout to 10
- C. Enable 802.1x Layer 2 security and set the Comeback timer to 10
- D. Enable the Protected Management Frame service and set the Comeback timer to 10

Answer: C

NEW QUESTION 464

- (Exam Topic 2)

Refer to Exhibit.



Which configuration must be applied to the router that configures PAT to translate all addresses in VLAN 200 while allowing devices on VLAN 100 to use their own IP addresses?

```

Router1(config)#access-list 99 permit 209.165.201.2 0.0.0.0
Router1(config)#ip nat inside source list 99 interface gi1/0/0 overload
Router1(config)#interface gi2/0/1.200
Router1(config-if)#ip nat inside
Router1(config)#interface gi1/0/0
Router1(config-if)#ip nat outside

Router1(config)#access-list 99 permit 209.165.201.2 255.255.255.255
Router1(config)#ip nat inside source list 99 interface gi1/0/0 overload
Router1(config)#interface gi2/0/1.200
Router1(config-if)#ip nat inside
Router1(config)#interface gi1/0/0
Router1(config-if)#ip nat outside

Router1(config)#access-list 99 permit 192.168.100.0 0.0.0.255
Router1(config)#ip nat inside source list 99 interface gi1/0/0 overload
Router1(config)#interface gi2/0/1.200
Router1(config-if)#ip nat inside
Router1(config)#interface gi1/0/0
Router1(config-if)#ip nat outside

Router1(config)#access-list 99 permit 192.168.100.32 0.0.0.31
Router1(config)#ip nat inside source list 99 interface gi1/0/0 overload
Router1(config)#interface gi2/0/1.200
Router1(config-if)#ip nat inside
Router1(config)#interface gi1/0/0
Router1(config-if)#ip nat outside
    
```

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

Answer: D

NEW QUESTION 465

- (Exam Topic 2)

Which statement correctly compares traditional networks and controller-based networks?

- A. Only traditional networks offer a centralized control plane
- B. Only traditional networks natively support centralized management
- C. Traditional and controller-based networks abstract policies from device configurations
- D. Only controller-based networks decouple the control plane and the data plane

Answer: D

Explanation:

Most traditional devices use a distributed architecture, in which each control plane is resided in a networking device. Therefore they need to communicate with each other via messages to work correctly. In contrast to distributed architecture, centralized (or controller-based) architectures centralizes the control of networking devices into one device, called SDN controller

NEW QUESTION 467

- (Exam Topic 2)

Which two tasks must be performed to configure NTP to a trusted server in client mode on a single network device? (Choose two)

- A. Enable NTP authentication.
- B. Verify the time zone.
- C. Disable NTP broadcasts
- D. Specify the IP address of the NTP server
- E. Set the NTP server private key

Answer: AD

Explanation:

<https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4000/8-2glx/configuration/guide/ntp.html>

To configure authentication, perform this task in privileged mode: Step 1: Configure an authentication key pair for NTP and specify whether the key will be trusted or untrusted. Step 2: Set the IP address of the NTP server and the public key. Step 3: Enable NTP client mode. Step 4: Enable NTP authentication. Step 5: Verify the NTP configuration.

NEW QUESTION 469

- (Exam Topic 2)

The SW1 interface g0/1 is in the down/down state. Which two configurations are valid reasons for the interface conditions?(choose two)

- A. There is a duplex mismatch
- B. There is a speed mismatch
- C. There is a protocol mismatch
- D. The interface is shut down
- E. The interface is error-disabled

Answer: BE

NEW QUESTION 470

- (Exam Topic 2)

What are two characteristics of a controller-based network? (Choose two)

- A. The administrator can make configuration updates from the CLI
- B. It uses northbound and southbound APIs to communicate between architectural layers
- C. It moves the control plane to a central point.
- D. It decentralizes the control plane, which allows each device to make its own forwarding decisions
- E. It uses Telnet to report system issues.

Answer: BC

NEW QUESTION 474

- (Exam Topic 2)

A network administrator enabled port security on a switch interface connected to a printer. What is the next configuration action in order to allow the port to learn the MAC address of the printer and insert it into the table automatically?

- A. enable dynamic MAC address learning
- B. implement static MAC addressing.
- C. enable sticky MAC addressing
- D. implement auto MAC address learning

Answer: C

NEW QUESTION 475

- (Exam Topic 2)

An engineer needs to configure LLDP to send the port description time length value (TLV). What command sequence must be implemented?

- A. switch(config-line)#lldp port-description
- B. switch(config)#lldp port-description
- C. switch(config-if)#lldp port-description
- D. switch#lldp port-description

Answer: B

NEW QUESTION 476

- (Exam 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

NEW QUESTION 479

- (Exam Topic 2)

Why does a switch flood a frame to all ports?

- A. The frame has zero destination MAC addresses.
- B. The source MAC address of the frame is unknown
- C. The source and destination MAC addresses of the frame are the same
- D. The destination MAC address of the frame is unknown.

Answer: B

NEW QUESTION 481

- (Exam Topic 2)

Which action is taken by a switch port enabled for PoE power classification override?

- A. When a powered device begins drawing power from a PoE switch port a syslog message is generated
- B. As power usage on a PoE switch port is checked data flow to the connected device is temporarily paused
- C. If a switch determines that a device is using less than the minimum configured power it assumes the device has failed and disconnects
- D. Should a monitored port exceeds the maximum administrative value for power, the port is shutdown and err-disabled

Answer: D

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/12-2SX/configuration/guide/book/power_o

PoE monitoring and policing compares the power consumption on ports with the administrative maximum value (either a configured maximum value or the port's default value). If the power consumption on a monitored port exceeds the administrative maximum value, the following actions occur:– A syslog message is issued.– The monitored port is shut down and error-disabled.– The allocated power is freed.

NEW QUESTION 486

- (Exam Topic 2)

Which result occurs when PortFast is enabled on an interface that is connected to another switch?

- A. Spanning tree may fail to detect a switching loop in the network that causes broadcast storms
- B. VTP is allowed to propagate VLAN configuration information from switch to switch automatically.
- C. Root port choice and spanning tree recalculation are accelerated when a switch link goes down
- D. After spanning tree converges PortFast shuts down any port that receives BPDUs.

Answer: A

Explanation:

Enabling the PortFast feature causes a switch or a trunk port to enter the STP forwarding-state immediately or upon a linkup event, thus bypassing the listening and learning states.

Note: To enable portfast on a trunk port you need the trunk keyword "spanning-tree portfast trunk"

NEW QUESTION 490

- (Exam Topic 2)

Refer to me 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
```

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 491

- (Exam Topic 2)

Which unified access point mode continues to serve wireless clients after losing connectivity to the Cisco Wireless LAN Controller?

- A. sniffer
- B. mesh
- C. flexconnect

D. local

Answer: C

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-5/config-guide/b_cg85/flexconnect.html

NEW QUESTION 495

- (Exam Topic 2)

Refer to the exhibit.

```
ip arp inspection vlan 2
interface fastethernet 0/1
switchport mode access
switchport access vlan 2
```

What is the effect of this configuration?

- A. The switch port interface trust state becomes untrusted
- B. The switch port remains administratively down until the interface is connected to another switch
- C. Dynamic ARP inspection is disabled because the ARP ACL is missing
- D. The switch port remains down until it is configured to trust or untrust incoming packets

Answer: A

Explanation:

Dynamic ARP inspection (DAI) is a security feature that validates ARP packets in a network. It intercepts, logs, and discards ARP packets with invalid IP-to-MAC address bindings. This capability protects the network from certain man-in-the-middle attacks. After enabling DAI, all ports become untrusted ports.

NEW QUESTION 498

- (Exam Topic 2)

Refer to the exhibit.



An engineer configured the New York router with state routes that point to the Atlanta and Washington sites. When command must be configured on the Atlanta and Washington routers so that both sites are able to reach the loopback2 interface on the New York router?

- A. ipv6 route ::0 Serial 0/0/1
- B. ipv6 route 0/0 Serial 0/0/0
- C. ipv6 route ::0 Serial 0/0/0
- D. ip route 0.0.0.0.0.0.0.0 Serial 0/0/0
- E. ipv6 route ::0 2000::2

Answer: C

NEW QUESTION 500

- (Exam Topic 2)

A device detects two stations transmitting frames at the same time. This condition occurs after the first 64 bytes of the frame is received interface counter increments?

- A. collision
- B. CRC
- C. runt
- D. late collision

Answer: D

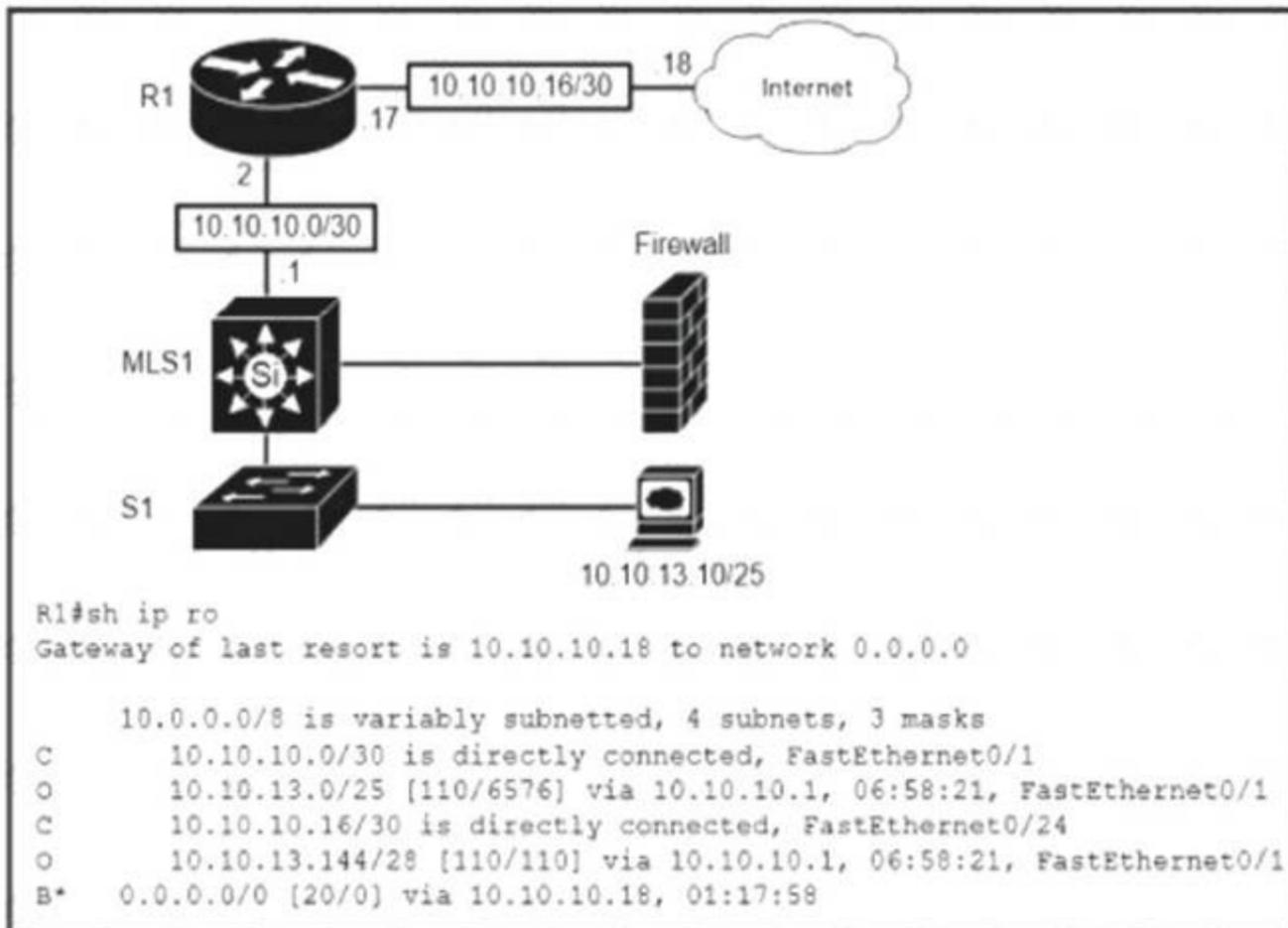
Explanation:

<https://www.cisco.com/c/en/us/support/docs/interfaces-modules/port-adapters/12768-eth-collisions.html>

NEW QUESTION 504

- (Exam Topic 2)

Refer to the exhibit.



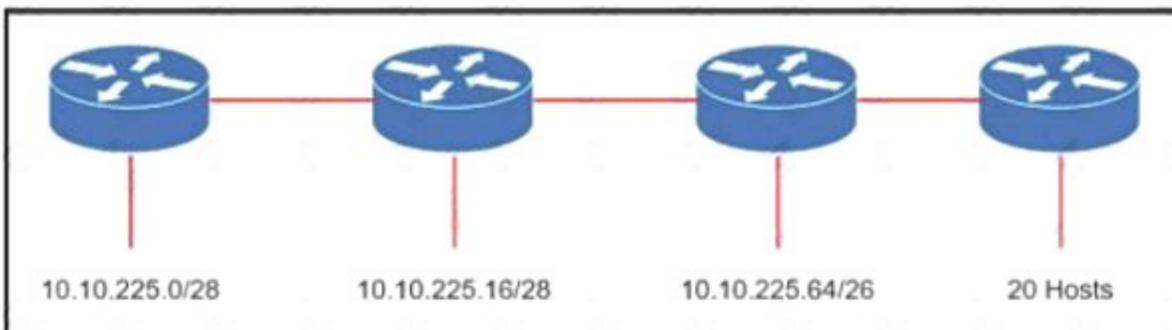
Which route type is configured to reach the internet?

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

Answer: B

NEW QUESTION 506

- (Exam Topic 2)



Refer to the exhibit. An engineer must add a subnet for a new office that will add 20 users to the network. Which IPv4 network and subnet mask combination does the engineer assign to minimize wasting addresses?

- A. 10.10.225.48 255.255.255.240
- B. 10.10.225.32 255.255.255.240
- C. 10.10.225.48 255.255.255.224
- D. 10.10.225.32 255.255.255.224

Answer: D

NEW QUESTION 510

- (Exam Topic 1)

Refer to the exhibit.

```

Router#
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater, P - Phone,
                  D - Remote, C - CVTA, M - Two-port Mac Relay

Device ID   Local Intrfce Holdtme  Capability Platform Port ID
10.1.1.2   Gig 37/3     176                R I CPT 600 Gig 36/41
10.1.1.2   Gig 37/1     174                R I CPT 600 Gig 36/43
10.1.1.2   Gig 36/41    134                R I CPT 600 Gig 37/3
10.1.1.2   Gig 36/43    134                R I CPT 600 Gig 37/1
10.1.1.2   Ten 3/2      132                R I CPT 600 Ten 4/2
10.1.1.2   Ten 4/2      174                R I CPT 600 Ten 3/2
    
```

Which command provides this output?

- A. show ip route
- B. show ip interface
- C. show interface
- D. show cdp neighbor

Answer: D

NEW QUESTION 514

- (Exam 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 519

- (Exam Topic 1)

Which two encoding methods are supported by REST APIs? (Choose two)

- A. YAML
- B. JSON
- C. EBCDIC
- D. SGML
- E. XML

Answer: BE

Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/rest_cfg/2_1_x/b_Cisco_APIC_RES Reference:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus1000/sw/5_x/rest_api_config/b_Cisco_N1KV_

The Application Policy Infrastructure Controller (APIC) REST API is a programmatic interface that uses REST architecture. The API accepts and returns HTTP (not enabled by default) or HTTPS messages that contain JavaScript Object Notation (JSON) or Extensible Markup Language (XML) documents.

NEW QUESTION 522

- (Exam Topic 1)

Drag and drop the SNMP components from the left onto the descriptions on the right.

MIB	collection of variables that can be monitored
SNMP agent	unsolicited message
SNMP manager	responds to status requests and requests for information about a device
SNMP trap	resides on an NMS

A. Mastered

B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 526

- (Exam Topic 1)

How do TCP and UDP differ in the way that they establish a connection between two endpoints?

- A. TCP uses synchronization packets, and UDP uses acknowledgment packets.
- B. UDP uses SYN, SYN ACK and FIN bits in the frame header while TCP uses SYN, SYN ACK and ACK bits
- C. UDP provides reliable message transfer and TCP is a connectionless protocol
- D. TCP uses the three-way handshake and UDP does not guarantee message delivery

Answer: D

NEW QUESTION 531

- (Exam Topic 1)

What is a DHCP client?

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

Answer: A

NEW QUESTION 533

- (Exam 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 537

- (Exam Topic 1)

What are two functions of a server on a network? (Choose two)

- A. achieves redundancy by exclusively using virtual server clustering
- B. runs applications that send and retrieve data for workstations that make requests
- C. handles requests from multiple workstations at the same time
- D. runs the same operating system in order to communicate with other servers
- E. housed solely in a data center that is dedicated to a single client

Answer: BC

NEW QUESTION 540

- (Exam Topic 1)

When configuring IPv6 on an interface, which two IPv6 multicast groups are joined? (Choose two)

- A. 2000::3
- B. 2002::5
- C. FC00::7
- D. FF02::1
- E. FF02::2

Answer: DE

Explanation:

Reference:

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6/configuration/xe-3s/ipv6-xe-36s-book/ip6-multicast.htm>

When an interface is configured with IPv6 address, it automatically joins the all nodes (FF02::1) and solicited-node (FF02::1:FFxx:xxx) multicast groups. The all-node group is used to communicate with all interfaces on the local link, and the solicited-nodes multicast group is required for link-layer address resolution. Routers also join a third multicast group, the all-routers group (FF02::2).

NEW QUESTION 545

- (Exam 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 546

- (Exam 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 547

- (Exam Topic 1)

Which action does the router take as it forwards a packet through the network?

- A. The router replaces the original source and destination MAC addresses with the sending router MAC address as the source and neighbor MAC address as the destination
- B. The router encapsulates the original packet and then includes a tag that identifies the source router MAC address and transmits it transparently to the destination
- C. The router encapsulates the source and destination IP addresses with the sending router IP address as the source and the neighbor IP address as the destination
- D. The router replaces the source and destination labels with the sending router interface label as a source and the next hop router label as a destination

Answer: A

NEW QUESTION 551

- (Exam 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 555

- (Exam 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 557

- (Exam 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 562

- (Exam 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 566

- (Exam 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 569

- (Exam Topic 1)

What are two similarities between UTP Cat 5e and Cat 6a cabling? (Choose two.)

- A. Both operate at a frequency of 500 MHz.
- B. Both support runs of up to 55 meters.
- C. Both support runs of up to 100 meters.
- D. Both support speeds of at least 1 Gigabit.
- E. Both support speeds up to 10 Gigabit.

Answer: CD

NEW QUESTION 570

- (Exam Topic 1)

Which configuration ensures that the switch is always the root for VLAN 750?

- A. Switch(config)#spanning-tree vlan 750 priority 38003685
- B. Switch(config)#spanning-tree vlan 750 root primary
- C. Switch(config)#spanning-tree vlan 750 priority 614440
- D. Switch(config)#spanning-tree vlan 750 priority 0

Answer: D

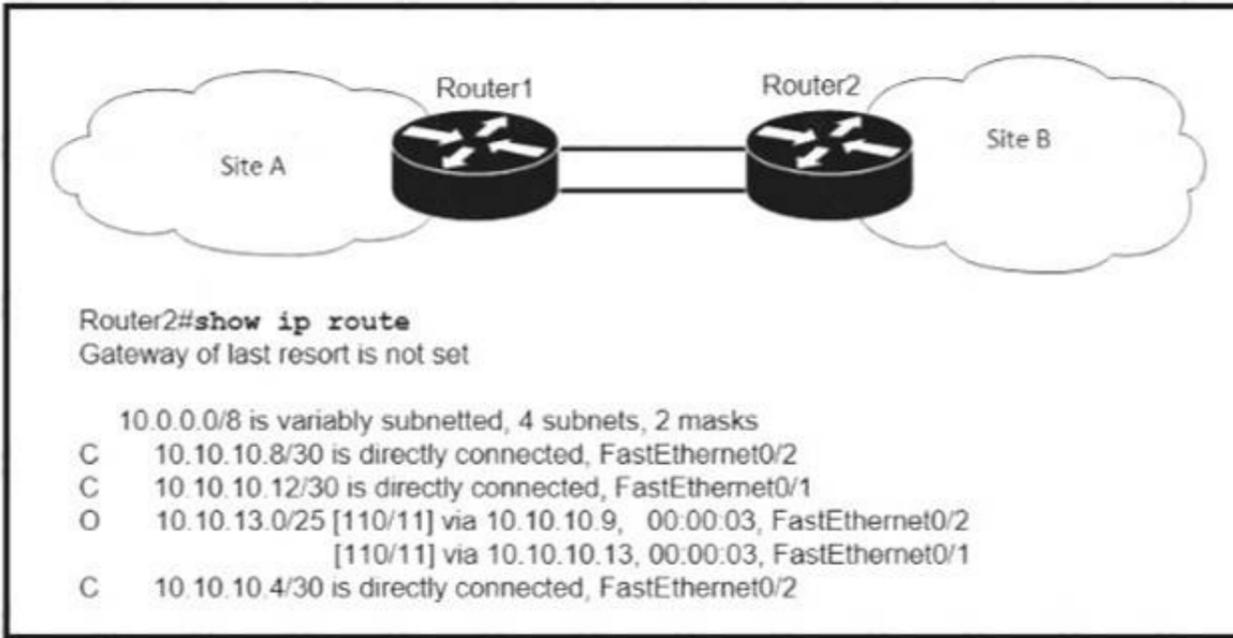
Explanation:

Although the spanning-tree vlan 10 root primary command will ensure a switch will have a bridge priority value lower than other bridges introduced to the network, the spanning-tree vlan 10 priority 0 command ensures the bridge priority takes precedence over all other priorities.

NEW QUESTION 574

- (Exam 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 576

- (Exam Topic 1)

How do servers connect to the network in a virtual environment?

- A. wireless to an access point that is physically connected to the network
- B. a cable connected to a physical switch on the network
- C. a virtual switch that links to an access point that is physically connected to the network
- D. a software switch on a hypervisor that is physically connected to the network

Answer: D

NEW QUESTION 579

- (Exam Topic 1)

Drag and drop the functions from the left onto the correct network components on the right

holds the TCP/IP settings to be distributed to the clients

resolves web URLs to IP addresses

stores a list of IP addresses mapped to names

assigns a default gateway to a client

assigns IP addresses to enabled clients

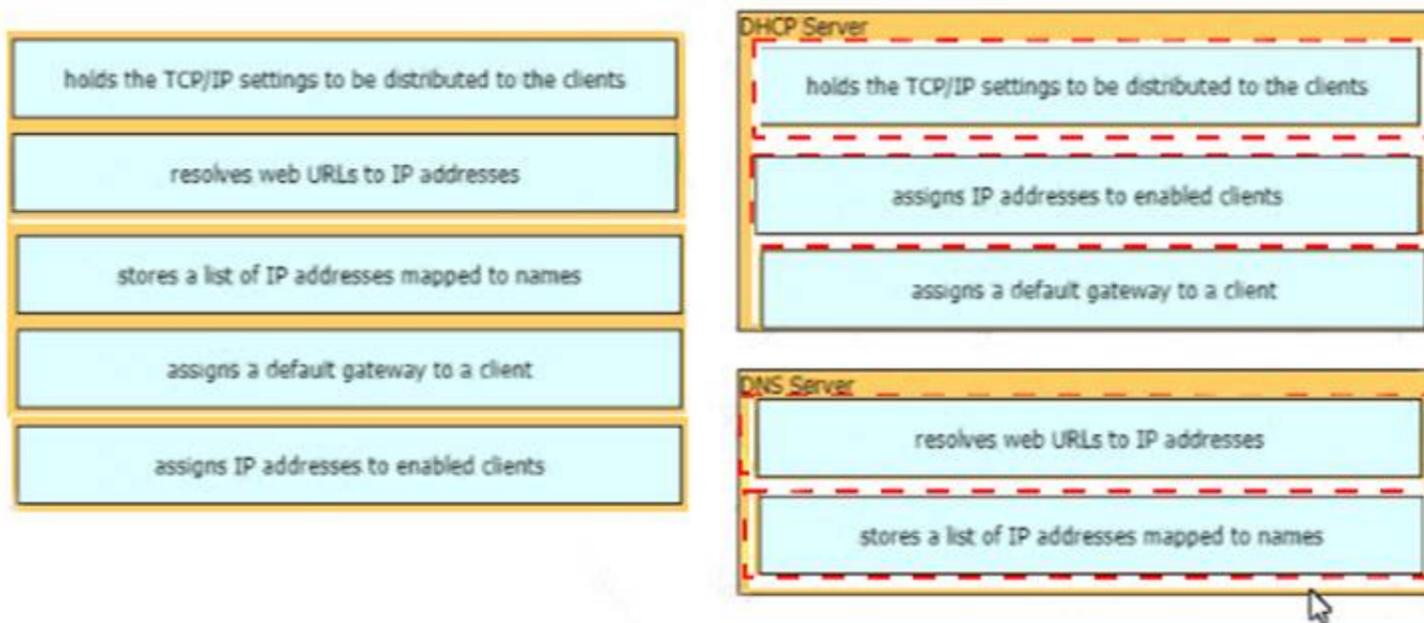
DHCP Server

DNS Server

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 581

- (Exam Topic 1)

Which output displays a JSON data representation?

- A.

```
{
  "response": {
    "taskId": {},
    "url": "string"
  },
  "version": "string"
}
```
- B.

```
{
  "response"- {
    "taskId"- {},
    "url"- "string"
  },
  "version"- "string"
}
```
- C.

```
{
  "response": {
    "taskId": {},
    "url": "string"
  },
  "version": "string"
}
```
- D.

```
{
  "response". {
    "taskId". {},
    "url". "string"
  },
  "version". "string"
}
```

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

Answer: C

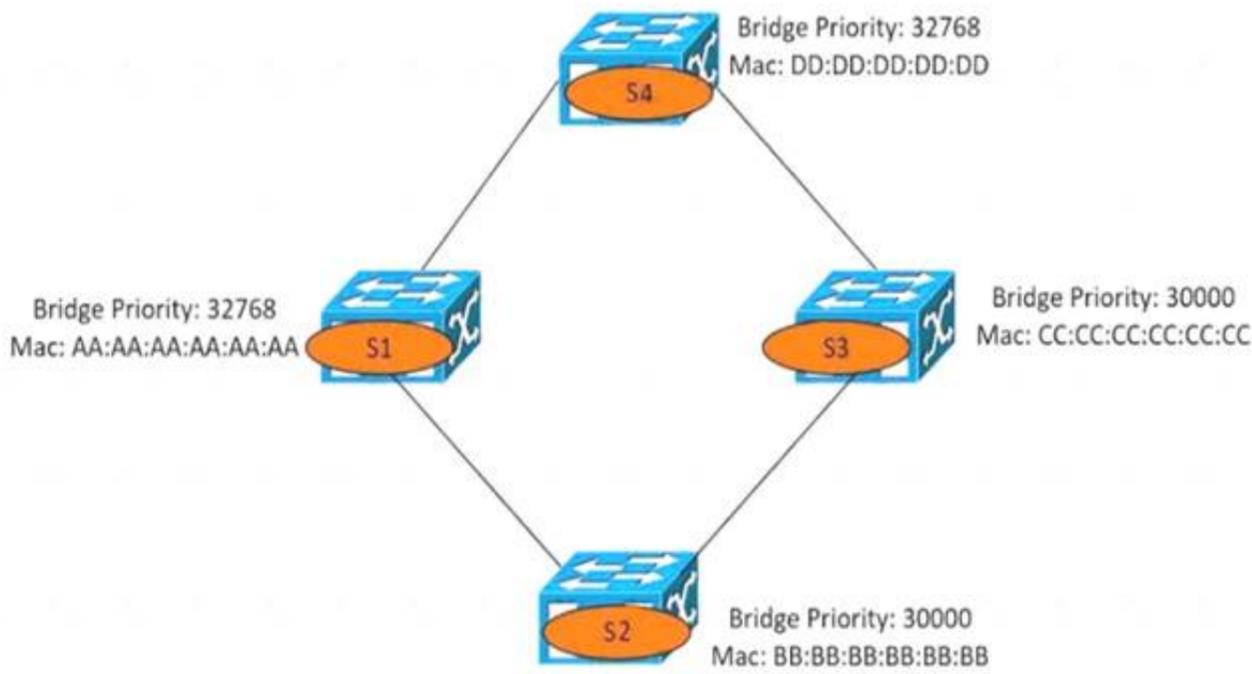
Explanation:

JSON data is written as name/value pairs. A name/value pair consists of a field name (in double quotes), followed by a colon, followed by a value: "name": "Mark". JSON can use arrays. Array values must be of type string, number, object, array, boolean or null. For example: {"name": "John", "age": 30, "cars": ["Ford", "BMW", "Fiat"]} JSON can have empty object like "taskId": {}

NEW QUESTION 585

- (Exam Topic 1)

Refer to the exhibit.



Which switch becomes the root bridge?

- A. S1
- B. S2
- C. S3
- D. S4

Answer: B

NEW QUESTION 590

- (Exam Topic 1)

Drag and drop the IPv4 network subnets from the left onto the correct usable host ranges on the right

Answer Area

172.28.228.144/18	172.28.228.1 - 172.28.229.254
172.28.228.144/21	172.28.224.1 - 172.28.231.254
172.28.228.144/23	172.28.228.129 - 172.28.228.254
172.28.228.144/25	172.28.228.145 - 172.28.228.150
172.28.228.144/29	172.28.192.1 - 172.28.255.254

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

172.28.228.144/18	172.28.228.144/23
172.28.228.144/21	172.28.228.144/21
172.28.228.144/23	172.28.228.144/25
172.28.228.144/25	172.28.228.144/29
172.28.228.144/29	172.28.228.144/18

NEW QUESTION 595

- (Exam Topic 1)

What is a function of a remote access VPN?

- A. used cryptographic tunneling to protect the privacy of data for multiple users simultaneously
- B. used exclusively when a user is connected to a company's internal network
- C. establishes a secure tunnel between two branch sites
- D. allows the users to access company internal network resources through a secure tunnel

Answer: D

NEW QUESTION 600

- (Exam Topic 1)

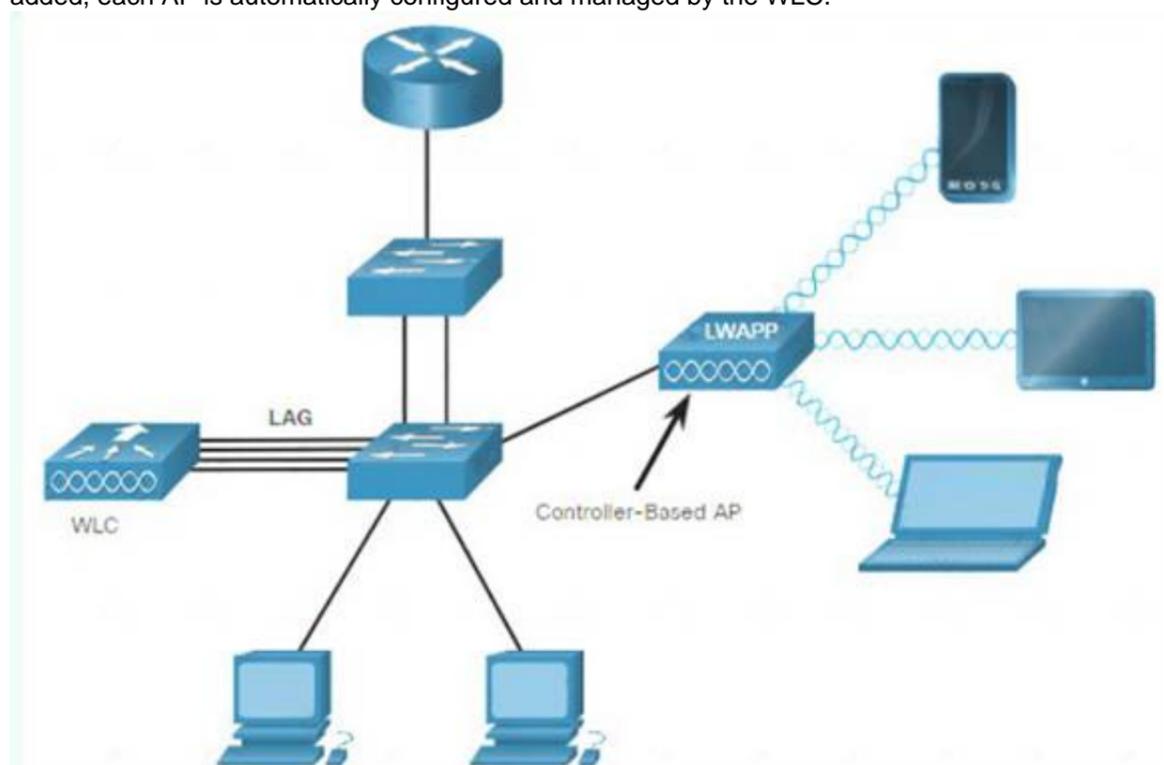
What is a function of Wireless LAN Controller?

- 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 605

- (Exam 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 607

- (Exam Topic 1)

A network engineer must back up 20 network router configurations globally within a customer environment. Which protocol allows the engineer to perform this function using the Cisco IOS MIB?

- A. CDP
- B. SNMP
- C. SMTP
- D. ARP

Answer: B

Explanation:

SNMP is an application-layer protocol that provides a message format for communication between SNMP managers and agents. SNMP provides a standardized framework and a common language used for the monitoring and management of devices in a network. The SNMP framework has three parts: + An SNMP manager + An SNMP agent + A Management Information Base (MIB) The Management Information Base (MIB) is a virtual information storage area for network management information, which consists of collections of managed objects. With SNMP, the network administrator can send commands to multiple routers to do the backup

NEW QUESTION 610

- (Exam 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 615

- (Exam Topic 1)

An engineer is configuring an encrypted password for the enable command on a router where the local user database has already been configured Drag and drop the configuration commands from the left into the correct sequence on the right Not all commands are used

configure terminal	first
enable	second
enable secret \$hf!@4fs	third
exit	fourth
line vty 0 4	
service password-encryption	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 619

- (Exam Topic 1)

Which technology allows for multiple operating systems to be run on a single host computer?

- A. virtual routing and forwarding
- B. network port ID visualization
- C. virtual device contexts
- D. server visualization

Answer: D

NEW QUESTION 620

- (Exam 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 624

- (Exam Topic 1)

Drag and drop the threat-mitigation techniques from the left onto the types of threat or attack they mitigate on the right.

Answer Area

Configure BPDU guard.	802.1q double tagging
Configure dynamic ARP inspection.	ARP spoofing
Configure root guard.	unwanted superior BPDUs
Configure VACL.	unwanted BPDUs on PortFast-enabled interfaces

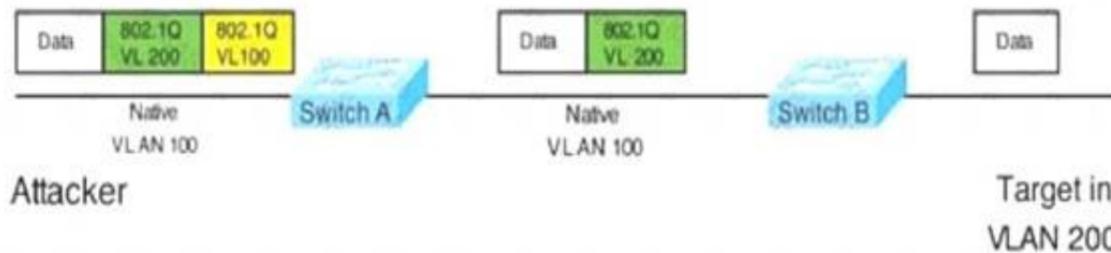
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Double-Tagging attack: In this attack, the attacking computer generates frames with two 802.1Q tags. The first tag matches the native VLAN of the trunk port (VLAN 10 in this case), and the second matches the VLAN of a host it wants to attack (VLAN 20). When the packet from the attacker reaches Switch A, Switch A only sees the first VLAN 10 and it matches with its native VLAN 10 so this VLAN tag is removed. Switch A forwards the frame out all links with the same native VLAN 10. Switch B receives the frame with an tag of VLAN 20

so it removes this tag and forwards out to the Victim computer. Note: This attack only works if the trunk (between two switches) has the same native VLAN as the attacker. To mitigate this type of attack, you can use VLAN access control lists (VACLs, which applies to all traffic within a VLAN. We can use VACL to drop attacker traffic to specific victims/servers) or implement Private VLANs. ARP attack (like ARP poisoning/spoofing) is a type of attack in which a malicious actor sends falsified ARP messages over a local area network as ARP allows a gratuitous reply from a host even if an ARP request was not received. This results in the linking of an attacker's MAC address with the IP address of a legitimate computer or server on the network. This is an attack based on ARP which is at Layer 2. Dynamic ARP inspection (DAI) is a security feature that validates ARP packets in a network which can be used to mitigate this type of attack.



NEW QUESTION 628

- (Exam Topic 1)

Refer to the exhibit.

```
cisco_ospf_vrf ("R1 default":  
  ensure => 'present',  
  auto_cost => '100',  
)
```

Which type of configuration is represented in the output?

- A. Ansible
- B. JSON
- C. Chef
- D. Puppet

Answer: D

NEW QUESTION 631

- (Exam 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%20i>

NEW QUESTION 634

- (Exam Topic 1)

Refer to the exhibit.

```
iBGP route 10.0.0.0/30  
RIP route 10.0.0.0/30  
OSPF route 10.0.0.0/16  
OSPF route 10.0.0.0/30  
EIGRP route 10.0.0.1/32
```

A router reserved these five routes from different routing information sources. Which two routes does the router install in its routing table? (Choose two)

- A. RIP route 10.0.0.0/30
- B. iBGP route 10.0.0.0/30
- C. OSPF route 10.0.0.0/30
- D. EIGRP route 10.0.0.1/32
- E. OSPF route 10.0.0.0/16

Answer: CD

NEW QUESTION 638

- (Exam Topic 1)

Refer to the exhibit.

```
import ncclient  
  
with ncclient.manager.connect(host='192.168.1.1', port=830, username='root',  
                             password='teset123!', allow_agent=False) as m:  
    print(m.get_config('running').data_xml)
```

After running the code in the exhibit, which step reduces the amount of data that the NETCONF server returns to the NETCONF client, to only the interface's configuration?

- A. Use the lxml library to parse the data returned by the NETCONF server for the interface's configuration.
- B. Create an XML filter as a string and pass it to get_config() method as an argument.
- C. Create a JSON filter as a string and pass it to the get_config() method as an argument.
- D. Use the JSON library to parse the data returned by the NETCONF server for the interface's configuration.

Answer: D

NEW QUESTION 643

- (Exam 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 644

- (Exam Topic 1)

What protocol allows an engineer to back up 20 network router configurations globally while using the copy function?

- A. SMTP
- B. SNMP
- C. TCP
- D. FTP

Answer: B

NEW QUESTION 648

- (Exam Topic 1)

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

<p>DHCP server</p>	<p>list of hosts on the network that are unknown to the administrative domain</p>
<p>snooping binding database</p>	<p>network component that propagates IP addresses to hosts on the network</p>
<p>spurious DHCP server</p>	<p>internal device under the control of the network administrator</p>
<p>trusted</p>	<p>unknown DHCP server within an administrative domain</p>
<p>untrusted</p>	<p>default state of all interfaces</p>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

	<p>snooping binding database</p>
	<p>spurious DHCP server</p>
	<p>trusted</p>
	<p>DHCP server</p>
	<p>untrusted</p>

NEW QUESTION 653

- (Exam Topic 1)

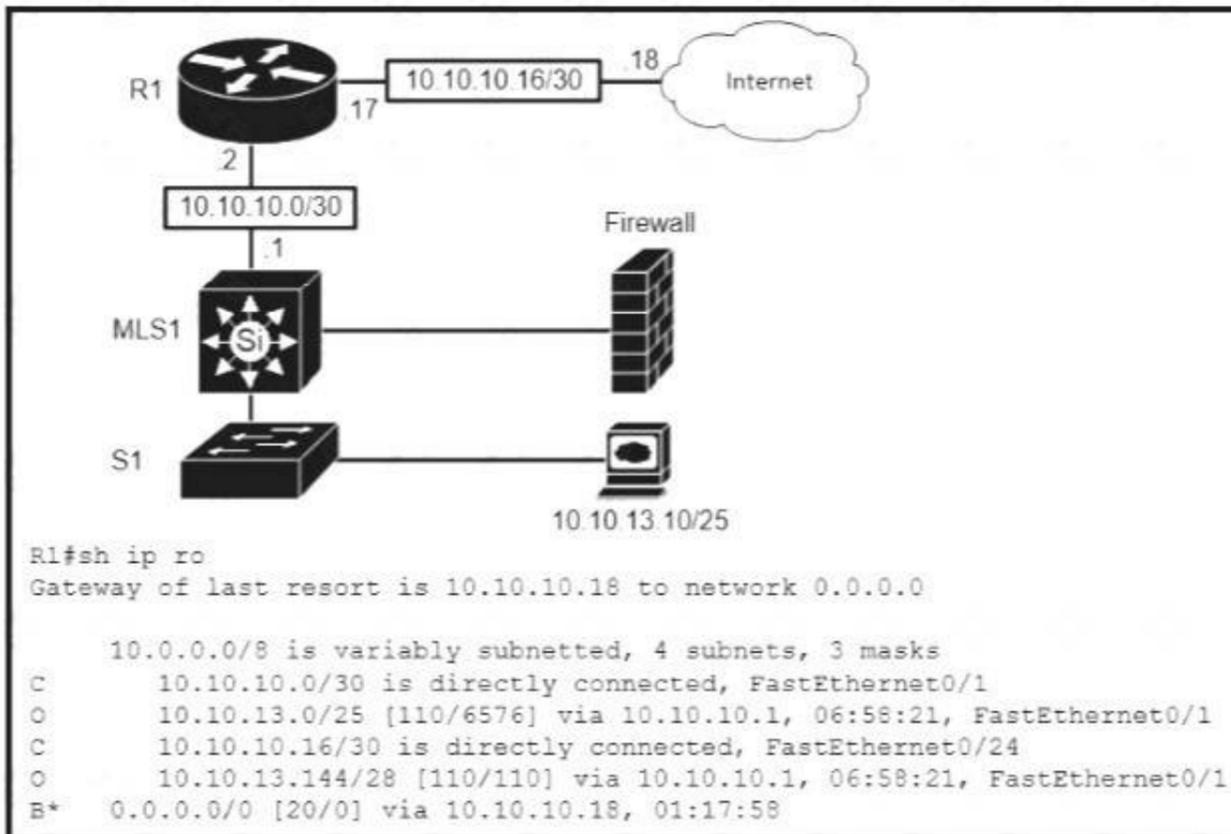
Which CRUD operation modifies an existing table or view?

- A. read
- B. create
- C. replace
- D. update

Answer: D

NEW QUESTION 657

- (Exam Topic 1)
 Refer to the exhibit.



Which type of route does R1 use to reach host 10.10.13.10/32?

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

Answer: D

Explanation:

From the output, we see R1 will use the entry “O 10.10.13.0/25 [110/4576] via 10.10.10.1, ...” to reach host 10.10.13.10. This is a network route. Note: “B* 0.0.0.0/0 ...” is a default route.

NEW QUESTION 660

- (Exam Topic 1)
 What is the primary purpose of a First Hop Redundancy Protocol?

- A. It allows directly connected neighbors to share configuration information.
- B. It allows a router to use bridge priorities to create multiple loop-free paths to a single destination.
- C. It reduces routing failures by allowing Layer 3 load balancing between OSPF neighbors that have the same link metric.
- D. It reduces routing failures by allowing more than one router to represent itself, as the default gateway of a network.

Answer: D

NEW QUESTION 663

- (Exam 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 665

- (Exam 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 in a brownfield deployment.
- D. It is designed primarily to provide network assurance.

Answer: A

NEW QUESTION 666

- (Exam 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.h

NEW QUESTION 670

- (Exam 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 673

- (Exam Topic 1)

What mechanism carries multicast traffic between remote sites and supports encryption?

- A. ISATAP
- B. GRE over IPsec
- C. IPsec over ISATAP
- D. GRE

Answer: B

NEW QUESTION 678

- (Exam 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 680

- (Exam Topic 1)

Which command entered on a switch configured with Rapid PVST* listens and learns for a specific time period?

- A. switch(config)#spanning-tree vlan 1 max-age 6
- B. switch(config)#spanning-tree vlan 1 hello-time 10
- C. switch(config)#spanning-tree vlan 1 priority 4096
- D. switch(config)#spanning-tree vlan 1 forward-time 20

Answer: D

Explanation:

Forward time : Determines how long each of the listening and learning states last before the port begins forwarding.

Switch(config)# [no] spanning-tree vlan vlan_ID forward-time forward_time Configures the forward time of a VLAN. The forward_time value can be from 4 to 30 seconds.

<https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/15-02SG/configuration/guide/config/spantree.html#56177>

NEW QUESTION 682

- (Exam 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 683

- (Exam Topic 1)

Which level of severity must be set to get informational syslogs?

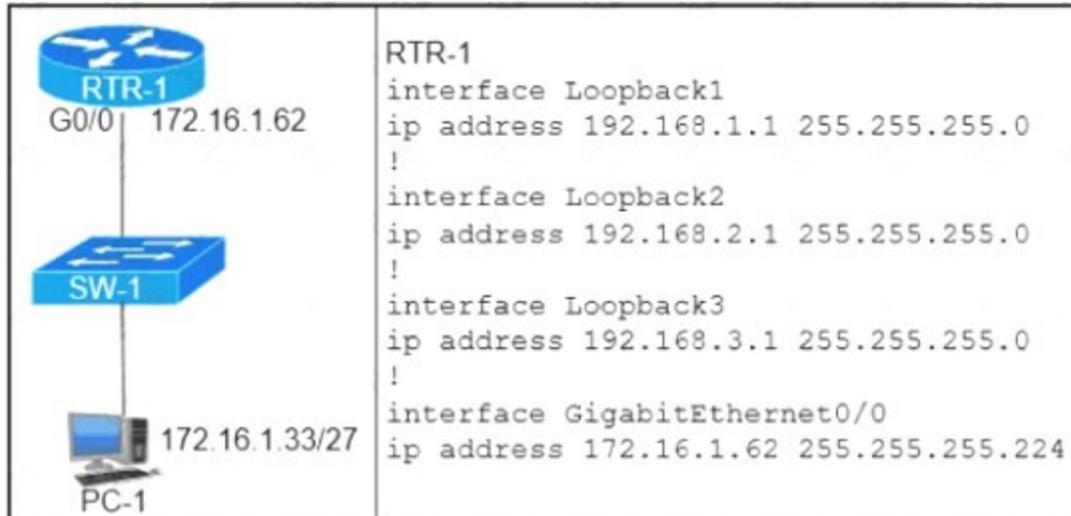
- A. alert
- B. critical
- C. notice
- D. debug

Answer: C

NEW QUESTION 684

- (Exam Topic 1)

Refer to the exhibit.



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

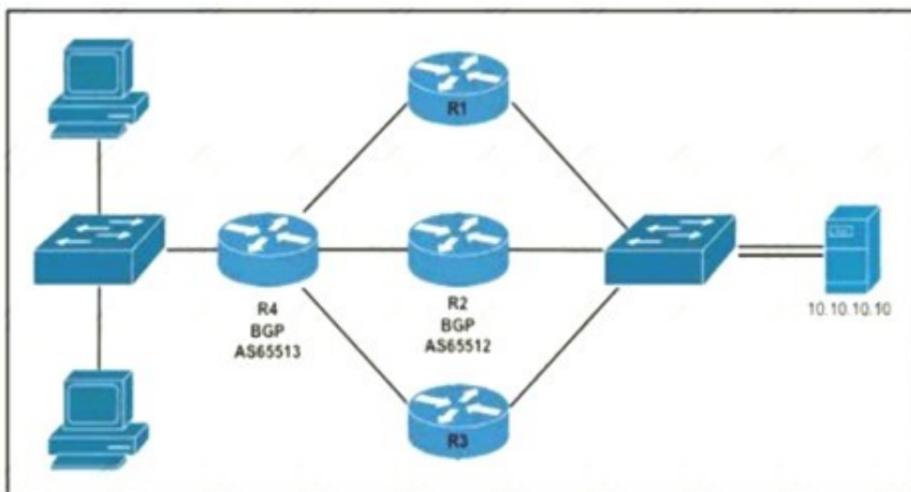
- A. access-list 100 deny tcp host 172.16.1.33 any eq 22 access-list 100 permit ip any any interface GigabitEthernet0/0 ip access-group 100 in
- B. access-list 100 deny tcp host 172.16.1.33 any eq 22 access-list 100 permit ip any any line vty 0 15 ip access-group 100 in
- C. access-list 100 deny tcp 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 ip access-group 100 in

Answer: B

NEW QUESTION 685

- (Exam Topic 1)

Refer to the exhibit.



Router R4 is dynamically learning the path to the server. If R4 is connected to R1 via OSPF Area 20, to R2 via R2 BGP, and to R3 via EIGRP 777, which path is installed in the routing table of R4?

- A. the path through R1, because the OSPF administrative distance is 110
- B. the path through R2, because the IBGP administrative distance is 200
- C. the path through R2 because the EBGP administrative distance is 20
- D. the path through R3, because the EIGRP administrative distance is lower than OSPF and BGP

Answer: C

NEW QUESTION 690

- (Exam Topic 1)

When a switch receives a frame for a known destination MAC address, how is the frame handed?

- A. sent to the port identified for the known MAC address
- B. broadcast to all ports
- C. forwarded to the first available port

D. flooded to all ports except the one from which it originated

Answer: A

NEW QUESTION 693

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