

Cisco

Exam Questions 350-501

Implementing and Operating Cisco Service Provider Network Core Technologies



NEW QUESTION 1

Refer to the exhibit.

Router 1:

```
tacacs-server host 192.168.1.2 single-connection
tacacs-server key ciscotest
```

What is the result of this configuration?

- A. Router 1 opens and closes a TCP connection to the TACACS+ server every time a user requires authorization.
- B. Router 1 and the TACACS+ server maintain one open connection between them only when network administrator is accessing the router with password ciscotest.
- C. Router 1 and the TACACS+ server maintain one open connection between them.
- D. Router 1 opens and closes a TCP connection to the TACACS+ server every time a user requires authentication.

Answer: C

Explanation:

<https://www.ccexpert.us/cisco-secure/configuring-tacacs-on-cisco-ios.html>

single-connection (Optional) Used to specify a single connection. Rather than have the router open and close a TCP connection to the daemon each time it must communicate, the single-connection option maintains a single open connection between the router and the daemon. This is more efficient because it allows the daemon to handle a higher number of TACACS operations.

NEW QUESTION 2

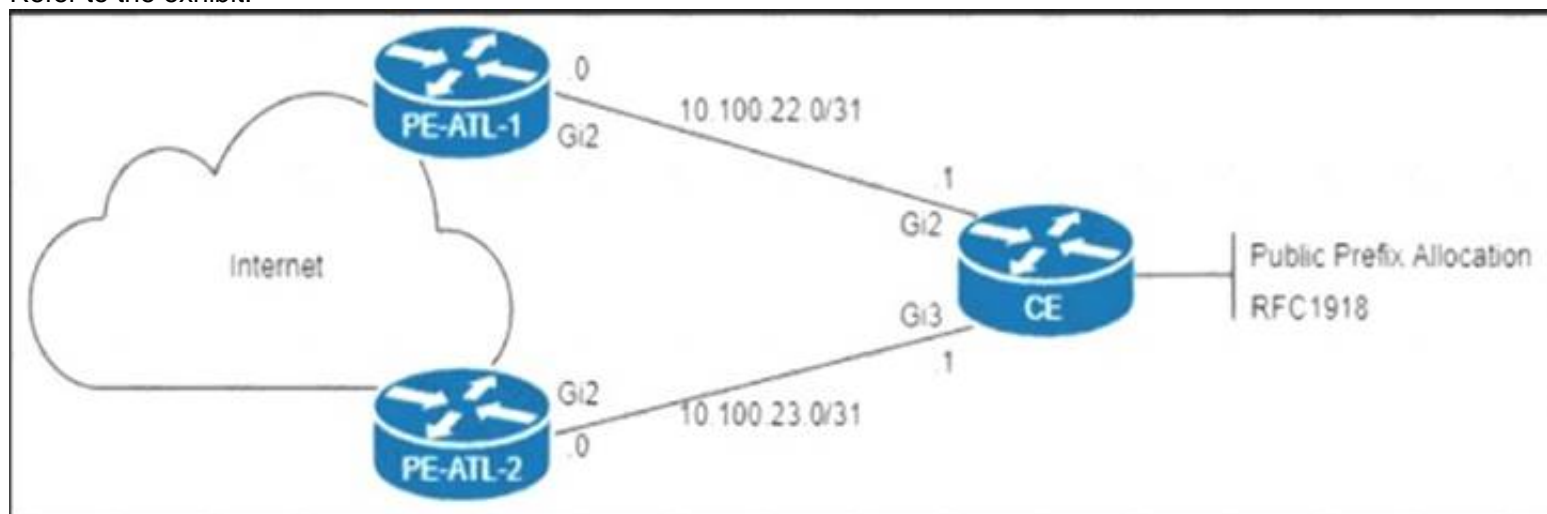
Which OS uses a distributed subsystem architecture?

- A. IOS XE
- B. IOS
- C. IOS XR
- D. CatOS

Answer: C

NEW QUESTION 3

Refer to the exhibit.



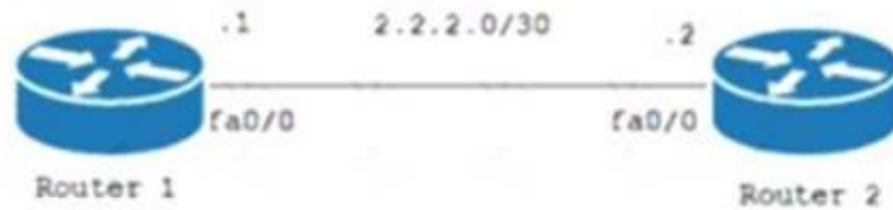
The CE router is peering with both PE routers and advertising a public prefix to the internet. Routing to and from this prefix will be asymmetric under certain network conditions, but packets must not be discarded. Which configuration must an engineer apply to the two PE routers so that they validate reverse packet forwarding for packets entering their Gi2 interfaces and drop traffic from the RFC1918 space?

- A. ip verify unicast source reachable-via rx allow-default
- B. interface GigabitEthernet 2 ip verify unicast source reachable-via rx
- C. ip verify unicast source reachable-via any allow-default interface GigabitEthernet 2
- D. ip verify unicast source reachable-via any

Answer: D

NEW QUESTION 4

Refer to the exhibit.



```

Router1(config)#router ospf 1
Router1(config-router)#network 0.0.0.0 255.255.255.255 area 0

Router2(config)#router ospf 1
Router2(config-router)#network 0.0.0.0 255.255.255.255 area 0
  
```

A network engineer must configure an LDP neighborship between two newly installed routers that are located in two different offices. Router 1 is the core router in the network and it has already established OSPF adjacency with router 2. On router 1 and router 2, interface fa0/0 is configured for BFD. Which additional configuration must the engineer apply to the two devices to meet the requirement?

- A. Router1(config)#int fa0/0 - Router1(config-if)#mpls ldp autoconfig Router2(config)#router ospf 1 - Router2(config-router)#mpls ip
- B. Router1(config)#int fa0/0 - Router1(config-if)#mpls ip Router1(config-if)#mpls ldp discovery transport-address interface Router2(config)#int fa0/0 Router2(config-if)#mpls ip Router2(config-if)#mpls ldp discovery transport-address interface
- C. Router1(config)#int fa0/0 - Router1(config-if)#mpls ldp autoconfig Router1(config-if)#mpls ldp discovery interface Router2(config)#router ospf 1 Router2(config-router)#mpls ldp autoconfig Router2(config-if)#mpls ldp discovery interface
- D. Router1(config)#int fa0/0 - Router1(config-if)#mpls ip - Router2(config)#router ospf 1 Router2(config-router)#mpls ldp autoconfig

Answer: D

NEW QUESTION 5

Refer to the exhibit.

```

Router 1:

router isis
 net 49.0011.0000.0000.0001.00

Router 2:

router isis
 net 49.0001.0000.0000.0001.00

Router 3:

router isis
 net 49.0011.0000.0000.0002.00
  
```

Router 4 is added to the network and must be in the same area as router 1. Which NET should the engineer assign?

- A. 49.0001.0000.0000.0004.00
- B. 49.0111.0000.0000.0001.00
- C. 49.0011.0000.0000.0003.00
- D. 49.0011.0000.0000.0002.00

Answer: C

NEW QUESTION 6

Which two tasks must you perform when you implement LDP NSF on your network? (Choose two.)

- A. Enable NSF for EIGRP
- B. Enable NSF for the link-state routing protocol that is in use on the network.
- C. Disable Cisco Express Forwarding
- D. Implement direct connections for LDP peers
- E. Enable NSF for BGP

Answer: BE

NEW QUESTION 7

An engineer is implementing a router redistribution within BGP. The route map must be configured to permit all unmatched routes. Which action must the engineer perform to complete this task?

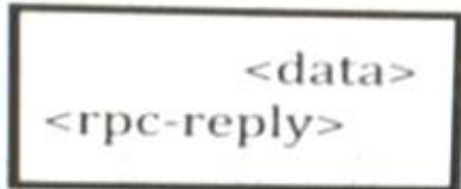
- ☒ Include a **permit** statement as the first entry
- ☐ Include at least one explicit **deny** statement
- ☐ Remove the implicit **deny** entry
- ☐ Include a **permit** statement as the last entry

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

Answer: D

NEW QUESTION 8

Refer to the exhibit:



This output is included at the end of an output that was provided by a device using NETCONF. What does the code show?

- A. It shows the hostname of the device as rpc-reply
- B. It shows that the running configuration is blank
- C. It shows NETCONF uses remote procedure calls.
- D. It shows that the full configuration is being modeled by VANG

Answer: C

NEW QUESTION 9

An engineer must apply an 802.1ad-compliant configuration to a new switchport with these requirements: The switchport must tag all traffic when it enters the port. The switchport is expected to provide the same level of service to traffic from any customer VLAN. Which configuration must the engineer use?

- A. interface GigabitEthernet1/0/1 switchport mode trunkswitchport trunk encapsulation dot1q encapsulation ISLbridge-domain 12
- B. interface GigabitEthernet1/0/1 ethernet dot1ad uni c-port service instance 12 encapsulation dot1qrewrite ingress tag push dot1ad 21 symmetric bridge-domain 12
- C. interface GigabitEthernet1/0/1 ethernet dot1ad uni s-port service instance 12 encapsulation defaultrewrite ingress tag push dot1ad 21 symmetricbridge-domain 12
- D. interface GigabitEthernet1/0/1 ethernet dot1ad nniservice instance 12 encapsulation dot1ad bridge-domain 12

Answer: C

Explanation:

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/cether/configuration/xe-3s/asr903/16-12-1/b-ce-xe-16-12-asr>

NEW QUESTION 10

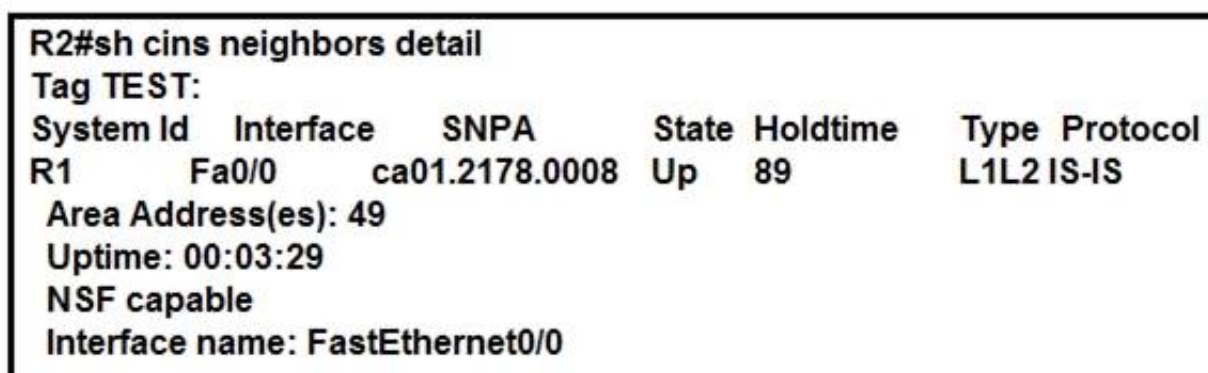
While an engineer deploys a new Cisco device to redistribute routes from OSPF to BGP, they notice that not all OSPF routes are getting advertised into BGP. Which action must the engineer perform so that the device allows O, OIA, OE1, and OE2 OSPF routes into other protocols?

- A. Configure the device to pass only O and E2 routes through it.
- B. Configure the synchronization keyword in the global BGP configuration.
- C. Configure the keyword nssa in the redistribution entry.
- D. Configure the keywords internal and external in the redistribution entry.

Answer: D

NEW QUESTION 10

Refer To the exhibit:



On R1, which output does the show isis neighbors command generate?

A)

| Tag TEST | | | | | |
|-----------|------|-----------|------------|-------|---------------------|
| System Id | Type | Interface | IP Address | State | Holdtime Circuit Id |
| R2 | L1 | Fa0/0 | UP | 7 | R2 01 |

B)

| Tag TEST | | | | | |
|-----------|------|-----------|------------|-------|---------------------|
| System Id | Type | Interface | IP Address | State | Holdtime Circuit Id |
| R2 | L2 | Fa0/0 | UP | 9 | R2 01 |

C)

| Tag TEST | | | | | |
|-----------|------|-----------|------------|-------|---------------------|
| System Id | Type | Interface | IP Address | State | Holdtime Circuit Id |
| R2 | L2 | Fa0/0 | UP | 7 | R2 01 |
| R2 | L2 | Fa0/0 | UP | 9 | R2 01 |

D)

| Tag TEST | | | | | |
|-----------|------|-----------|------------|-------|---------------------|
| System Id | Type | Interface | IP Address | State | Holdtime Circuit Id |
| R2 | L1 | Fa0/0 | UP | 7 | R2 01 |
| R2 | L2 | Fa0/0 | UP | 9 | R2 01 |

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

Answer: D

NEW QUESTION 11

Which type of attack is a Protocol attack?

- A. HTTP flood
- B. TFTP flood
- C. SYN flood
- D. Slowloris

Answer: C

Explanation:

Protocol Attacks

Includes SYN floods, fragmented packet attacks, Ping of Death, Smurf DDoS and more. This type of attack consumes actual server resources,

NEW QUESTION 15

What are two features of stateful NAT64? (Choose two.)

- A. It uses address overloading.
- B. It provides 1:N translations, so it supports an unlimited number of endpoints.
- C. It requires IPv4-translatable IPv6 address assignments.
- D. It requires the IPv6 hosts to use either DHCPv6-based address assignments or manual address assignments.
- E. It provides 1:1 translation, so it supports a limited number of endpoints.

Answer: AB

NEW QUESTION 20

Refer to the exhibit:

```
class-map match-any class1
match-protocol ipv4
match qos-group 4
```

A network engineer is implementing QoS services. Which two statements about the QoS-group keyword on Cisco IOS XR 3re true? (Choose two)

- A. The QoS group numbering corresponds to priority level
- B. QoS group marking occurs on the ingress
- C. It marks packets for end to end QoS pokey enforcement across the network
- D. QoS group can be used in fabric QoS policy as a match criteria
- E. It cannot be used with priority traffic class

Answer: BD

Explanation:

https://www.cisco.com/c/en/us/td/docs/routers/ncs6000/software/ncs6k_r6-1/qos/configuration/guide/b-qos-cg-n Fabric QoS policy class maps are restricted to

matching a subset of these classification options:

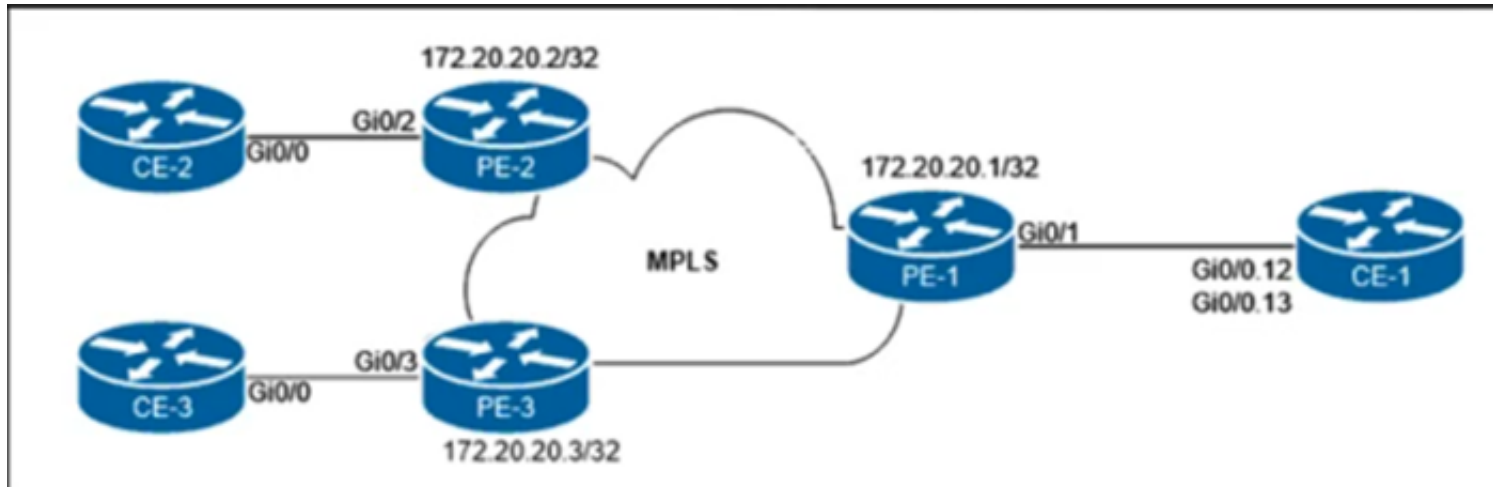
precedence dscp

qos-group discard-class

mpls experimental topmost

NEW QUESTION 25

Refer to the exhibit.



The customer that owns the CE-1, CE-2, and CE-3 routers purchased point-to-point E-Line services from the Carrier Ethernet provider. The service provider is delivering multiplexed UNI at the customer HQ location on PE-1 and untagged UNIs at the PE-2 and PE-3 locations. Additionally, the customer provided these VLAN to EVC mapping requirements:

- EVC 1 between CE-1 and CE-2 must be provisioned with C-VLAN 12 at the HQ location.
- EVC 2 between CE-1 and CE-3 must be provisioned with C-VLAN 13 at the HQ location.

Which configuration must the network engineer implement on the PE routers to provide end-to-end Carrier Ethernet service to the customer?

A. Text Description automatically generated

```
On PE-1:
interface GigabitEthernet0/1
service instance 1 ethernet
encapsulation dot1q 12
rewrite ingress tag pop 1
xconnect 172.20.20.2 1001201 encapsulation mpls
!
service instance 2 ethernet
encapsulation dot1q 13
rewrite ingress tag pop 1
xconnect 172.20.20.3 1001301 encapsulation mpls

On PE-2:
interface GigabitEthernet0/2
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001201 encapsulation mpls

On PE-3:
interface GigabitEthernet0/3
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001301 encapsulation mpls
```

B. Text Description automatically generated

```
On PE-1:
interface GigabitEthernet0/1
service instance 1 ethernet
encapsulation dot1q 12
rewrite ingress tag pop 1
xconnect 172.20.20.2 1001201 encapsulation mpls
!
service instance 2 ethernet
encapsulation dot1q 13
rewrite ingress tag pop 1
xconnect 172.20.20.3 1001301 encapsulation mpls
```

```
On PE-2:
interface GigabitEthernet0/2
service instance 1 ethernet
encapsulation untagged
rewrite ingress tag push dot1q 12 symmetric
xconnect 172.20.20.1 1001201 encapsulation mpls
```

```
On PE-3:
interface GigabitEthernet0/3
encapsulation untagged
rewrite ingress tag push dot1q 13 symmetric
xconnect 172.20.20.1 1001301 encapsulation mpls
```

C. Text Description automatically generated

```
On PE-1:
interface GigabitEthernet0/1
service instance 1 ethernet
encapsulation dot1q 12
rewrite ingress tag pop 1
xconnect 172.20.20.2 1001301 encapsulation mpls
!
service instance 2 ethernet
encapsulation dot1q 13
rewrite ingress tag pop 1
xconnect 172.20.20.3 1001201 encapsulation mpls
```

```
On PE-2:
interface GigabitEthernet0/2
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001201 encapsulation mpls
```

```
On PE-3:
interface GigabitEthernet0/3
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001301 encapsulation mpls
```

D. Text, letter Description automatically generated

```
On PE-1:
interface GigabitEthernet0/1
service instance 1 ethernet
encapsulation dot1q 12
rewrite ingress tag pop 1 symmetric
xconnect 172.20.20.2 1001201 encapsulation mpls
!
service instance 2 ethernet
encapsulation dot1q 13
rewrite ingress tag pop 1 symmetric
xconnect 172.20.20.3 1001301 encapsulation mpls

On PE-2:
interface GigabitEthernet0/2
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001201 encapsulation mpls

On PE-3:
interface GigabitEthernet0/3
service instance 1 ethernet
encapsulation untagged
xconnect 172.20.20.1 1001301 encapsulation mpls
```

Answer: B

NEW QUESTION 28

Refer to the exhibit:

```
R1
router ospf 1
  area 2 stub no-summary

R2
router ospf 1
  area 3 nssa
```

In which way does router R1 operate differently than router R2?

- A. R1 sends LSA type 2 only, while R2 sends type 1 and type 7 LSAs
- B. R1 sends LSA types 1 and 2, while R2 sends type 1, 2, and 7 LSAs
- C. R1 sends LSA type 2 only and R2 sends LSA type 1 only
- D. R1 sends LSA types 5 and 7, while R2 sends type 1, 2, and 7 LSAs

Answer: B

NEW QUESTION 31

Refer to the exhibit:

```
https://192.168.1.100/api/mo/uni/tn-ciscotest.xml
```

What is the URL used for with REST API?

- A. It is used to contact a URL filter to determine the efficacy of a web address
- B. It is used to send a TACACS+ authentication request to a server
- C. It is used to send a message to the APIC to perform an operation on a managed object or class operator
- D. It is used to initiate an FTP session to save a running configuration of a device.

Answer: C

NEW QUESTION 33

Which two features will be used when defining SR-TE explicit path hops if the devices are using IP unnumbered interfaces? (Choose two.)

- A. router ID
- B. labels
- C. node address

- D. next hop address
- E. output interface

Answer: BC

NEW QUESTION 37

What is a characteristic of prefix segment identifier?

- A. It contains a router to a neighbor
- B. It contains the interface address of the device per each link
- C. It is globally unique.
- D. It is locally unique.

Answer: C

NEW QUESTION 42

A network engineer has configured TE tunnels in the MPLS provider core. Which two steps ensure traffic traverse? (Choose two.)

- A. Static routes is the only option for directing traffic into a tunnel.
- B. ECMP between tunnels allows RSVP to function correctly.
- C. Forwarding adjacency features allows a tunnel to be Installed in the IGP table as a link.
- D. The IGP metric of a tunnel is configured to prefer a certain path
- E. A tunnel weight is configured in SPF database the same way as a native link.

Answer: CD

NEW QUESTION 44

Which service is a VNF role?

- A. Compute
- B. Network
- C. Firewall
- D. Storage

Answer: B

NEW QUESTION 46

Which statement describes the advantage of a Multi-Layer control plane?

- A. It automatically provisions monitors, and manages traffic across Layer 0 to Layer 3
- B. It minimizes human error configuring converged networks
- C. It supports dynamic wavelength restoration in Layer 0
- D. It provides multivendor configuration capabilities for Layer 3 to Layer 1

Answer: C

NEW QUESTION 49

Which two tasks must an engineer perform when implementing LDP NSF on the network? (Choose two.)

- A. Disable Cisco Express Forwarding.
- B. Enable NSF for EIGRP.
- C. Enable NSF for the link-state routing protocol that is in use on the network.
- D. Implement direct connections for LDP peers.
- E. Enable NSF for BGP.

Answer: CE

Explanation:

LDP NSF works with LDP sessions between directly connected peers and with peers that are not directly connected (targeted sessions).

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ha/configuration/15-sy/mp-ha-15-sy-book/mp-ldp-grace

NEW QUESTION 51

A network administrator is planning a new network with a segment-routing architecture using a distributed control plane. How is routing information distributed on such a network?

- A. Each segment is signaled by a compatible routing protocol, and each segment makes its own steering decisions based on SR policy.
- B. Each segment is signaled by MPLS, and each segment makes steering decisions based on the routing policy pushed by BGP.
- C. Each segment is signaled by an SR controller, but each segment makes its own steering decisions based on SR policy.
- D. Each segment is signaled by an SR controller that makes the steering decisions for each node.

Answer: D

NEW QUESTION 53

An engineer implemented LDP protocol on the ISP network. The engineer must ensure that there are no packet loss issues when IGP and LDP protocols are not synchronized. Which configuring must the engineer implement so that the IGP routing protocol will wait until LDP convergence is completed?

- A. Disable IP CEF routers running LDP and enable LDP protocol.
- B. Configure MPLS LDP IGP synchronization on the network.
- C. Configure LDP sessions protection on the network.
- D. Disable MPLS LDP IGP synchronization on the network.

Answer: B

NEW QUESTION 54

Which technology enables the addition of new wavelengths in a fiber-optic network?

- A. IPoDWDM
- B. CWDM
- C. DWDM
- D. ROADM

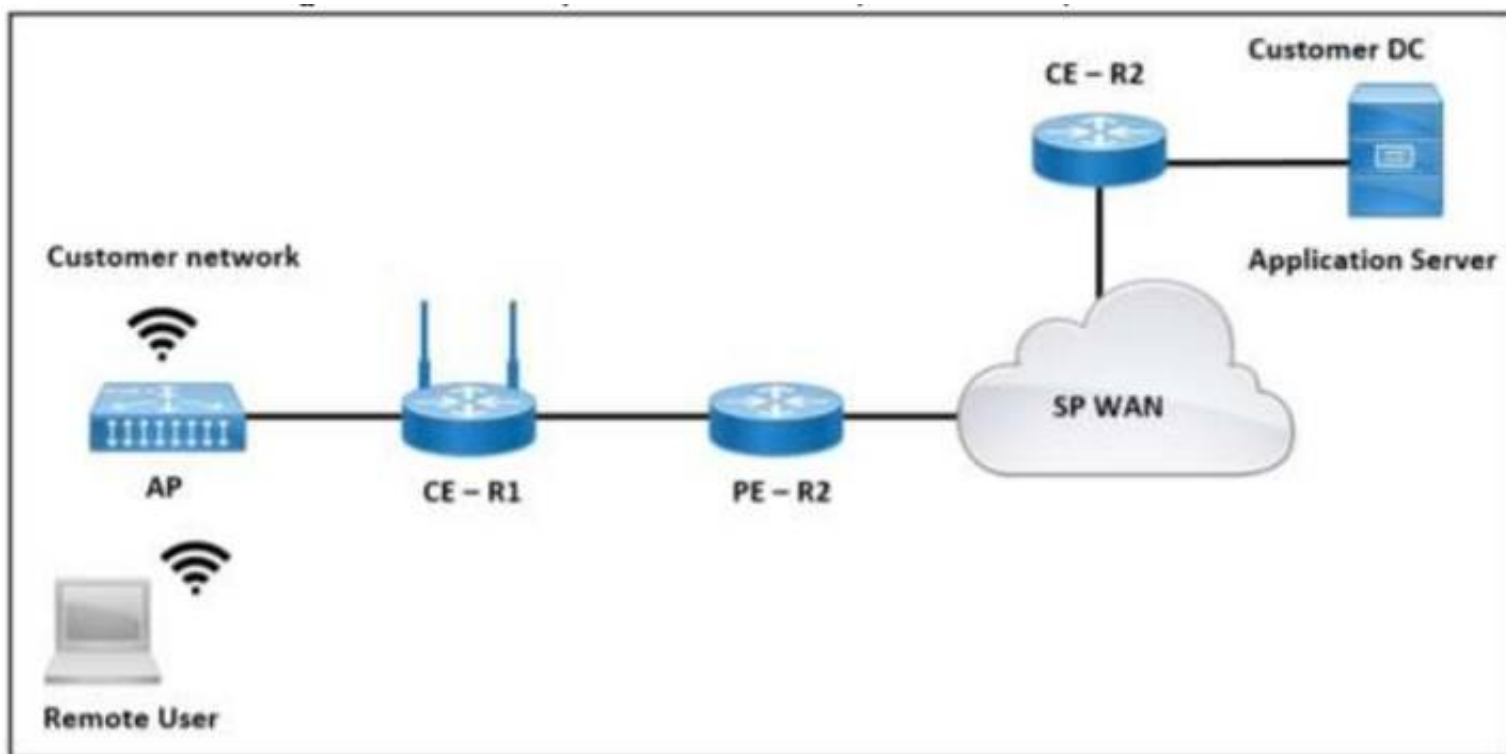
Answer: C

Explanation:

Wavelength-division multiplexing (WDM) is a technology which multiplexes a number of optical carrier signals onto a single fiber [1], using different wavelengths of light to carry different signals. This allows for a greater capacity for data transfer and enables the addition of new wavelengths in a fiber-optic network

NEW QUESTION 57

Refer to the exhibit.



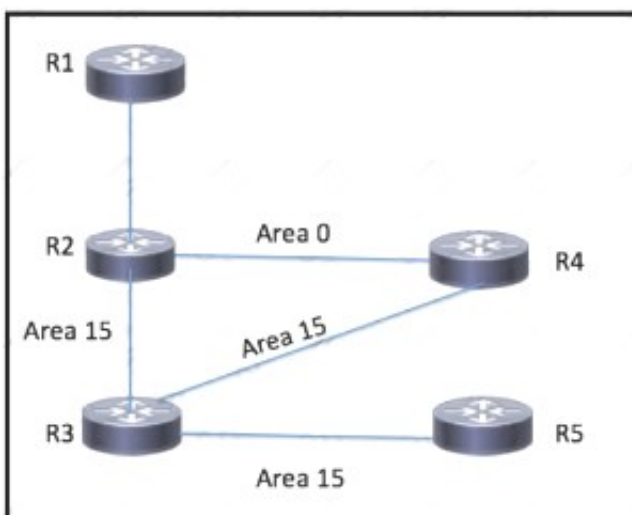
The application server in the data center hosts voice, video, and data applications over the internet. The data applications run more slowly than the voice and video applications. To ensure that all applications run smoothly, the service provider decided to implement a QoS policy on router PER 2 to apply traffic shaping. Which two actions must an engineer take to implement the task? (Choose two.)

- A. Configure the scheduling function to handle delayed packets.
- B. Enable packet remarking for priority traffic.
- C. Configure a queue to buffer excess traffic.
- D. Set the token value for secondary traffic.
- E. Set a threshold to discard excess traffic.

Answer: A

NEW QUESTION 58

Refer to the exhibit.



An engineer has started to configure a router for OSPF, as shown. Which configuration must an engineer apply on the network so that area 15 traffic from R5 to R1 will prefer the route through R4?

- A. Place the link between R3 and R5 in a stub area to force traffic to use the route through R4.
- B. Increase the cost on the link between R2 and R4, to influence the path over R3 and R4.
- C. Implement a multiarea adjacency on the link between R2 and R4, with the cost manipulated to make the path through R4 preferred.

D. Implement a sham link on the between R3 and R2 to extend area 0 area 15.

Answer: B

NEW QUESTION 59

Refer to the exhibit:

```
R1
router bgp 65000
  router-id 192.168.1.1
  neighbor 192.168.1.2 remote-as 65001
  neighbor 192.168.1.2 password cisco
```

Router R1 and its peer R2 reside on the same subnet in the network, If does it make connections to R2?

- A. R1 establishes UDP connections that are authenticated with an MD5 password
- B. R1 establishes TCP connections that are authenticated with a clear-text password
- C. R1 establishes UDP connections that are authenticated with a clear-text password
- D. R1 establishes TCP connections that are authenticated with an MD5 password

Answer: D

NEW QUESTION 61

You are configuring MPLS traffic-engineering tunnels in the core. Which two ways exist for the tunnel path across the core? (Choose two)

- A. Tunnel links inherit IGP metrics by default unless overridden
- B. Tunnels can be configured with dynamic path or explicitly defined path
- C. A zero bandwidth tunnel is not a valid option
- D. The bandwidth statement creates a "hard" reservation on the link-The dynamic path option is supported only with IS-IS

Answer: AB

NEW QUESTION 62

Refer to the exhibit.

```
snmp-server community ciscotest ro 2
```

What does the number 2 mean in the configuration?

- A. It dictates the number of sessions that will be open with the SNMP manager
- B. It represents the version of SNMP running.
- C. It indicates two SNMP managers are able to read and write with the agent using community string ciscotest.
- D. It is the numeric name of the ACL that contains the list of SNMP managers with access to the agent.

Answer: D

NEW QUESTION 65

Which type of attack is an application attack?

- A. ping of death
- B. ICMP (ping) flood
- C. HTTP flood
- D. SYN flood

Answer: C

NEW QUESTION 68

Refer to the exhibit.

```
router bgp 65515
  bgp router-id 192.168.1.1
  no bgp default ipv4-unicast
  bgp log-neighbor-changes
  neighbor 192.168.1.2 remote-as 65515
  neighbor 192.168.2.2 remote-as 65515
```

A network engineer is configuring a new router for iBGP to improve the capacity of a growing network. The router must establish an iBGP peer relationship with its neighbor. The underlay network is already configured with the correct IP addresses. Which step should the engineer apply to complete this task?

- A. Implement multicast routing on the router to support BGP hellos.
- B. Configure the AS number for the router to share with its iBGP peers.

- C. Configure the new router as an iBGP route reflector to support multiple iBGP peers.
- D. Activate the BGP peers under the correct address family on the router.

Answer: C

NEW QUESTION 70

Refer to the exhibit.

```
router ospf 1
segment-routing mpls
segment-routing forwarding mpls
```

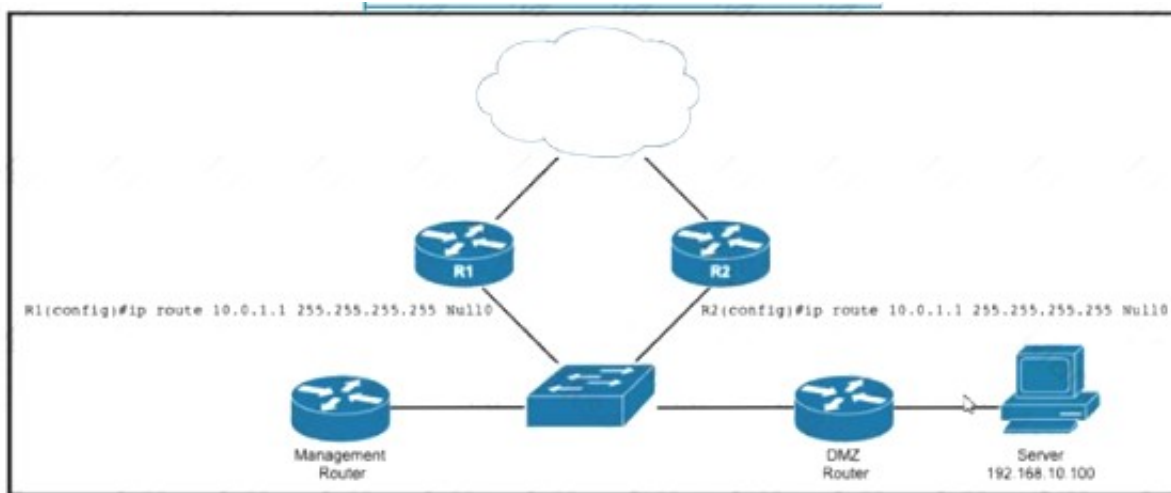
AN engineer is configuring segment routing on an ISP to simplify traffic engineering and management across network domains. What should the engineer do to complete the implementation of segment routing?

- A. OSPF must be configured with wide area metrics to support routing.
- B. The segment will run without any further configuration.
- C. Area authentication must be enable before segment routing will run.
- D. Area Authentication must be enable before segment routing will run.

Answer: C

NEW QUESTION 72

Refer to the exhibit.



```
router(config)# route-map blackhole-trigger
router(config-route-map)# match tag 777
router(config-route-map)# set ip next-hop 10.0.1.1
router(config-route-map)# set origin igp
router(config-route-map)# set community no-export
```

EIGRP is running across the core to exchange internal routes, and each router maintains BGP adjacency with the other routers on the network. An operator has configured static routes on the edge routers R1 and R2 for IP address 10.0.1.1, which is used as a black hole route as shown. Which configuration should the operator implement on the management router to create a route map that will redistribute lagged static routes into BGP and create a static route to blackhole traffic with tag 777 that is destined to server at 192.168.10.100?

- ☒ router(config)# router bgp 55100
 - router(config-router)# redistribute connected
 - router(config)# ip route 192.168.10.100 255.255.255.255 tag 777
- ☐ router(config)# router bgp 55100
 - router(config-router)# redistribute static route-map blackhole-trigger
 - router(config)# ip route 192.168.10.100 255.255.255.255 Null0 tag 777
- ☐ router(config)# router bgp 55100
 - router(config-router)# redistribute connected route-map blackhole-trigger
 - router(config)# ip route 192.168.10.100 255.255.255.255 Null0 tag 777
- ☐ router(config)# router bgp 55100
 - router(config-router)# redistribute static route-map blackhole-trigger
 - router(config)# ip route 10.0.1.1 255.255.255.255 Null0 tag 777

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

Answer: D

NEW QUESTION 74

Which MPLS design attribute can you use to provide Internet access to a major customer through a separate dedicated VPN?

- A. The customer that needs the Internet access service is assigned to the same RTs as the Internet gateway
- B. The Internet gateway inserts the full Internet BGP routing table into the Internet access VPN
- C. The Internet gateway router is connected as a PE router to the MPLS backbone.
- D. The CE router supports VRF-UTE and the full BGP routing table.

Answer: B

NEW QUESTION 79

Which benefit is provided by FRR?

- A. It provides fast forwarding path failure detection times for all media.
- B. It provides rapid failure detection between forwarding engines.
- C. It provides performance data for the service provider network.
- D. It protects Cisco MPLS TE LSPs from link and node failures.

Answer: D

NEW QUESTION 82

After implement MPLS protocol for multiple VRFs on a single Cisco device, the engineer notices all VRFs on the router still do not have LDP session protection feature enabled. Which configuration must the engineer apply to enable the LDP session protection feature FOR LDP neighbors within each VRF?

- A. Configure LDP session protection globally on the device only.
- B. Configure LDP session protection globally on the device and on each neighbor that requires session protection.
- C. Configure LDP session authentication on the device to enable LDP session protection on each VRF automatically.
- D. Configure LDP session protection within the individual VRFs.

Answer: D

NEW QUESTION 85

What is a primary benefit of IPoATM or MPLS over ATM backbone service provider networks?

- A. dedicated circuits
- B. variable-length packets
- C. isochronous system
- D. fixed-length cells

Answer: A

NEW QUESTION 89

Refer to the exhibit.

| Router 1: | Router 2: |
|--------------------------------------|--------------------------------------|
| Interface gigabitethernet0/1 | Interface gigabitethernet0/1 |
| ip address 192.168.1.1 255.255.255.0 | ip address 192.168.1.2 255.255.255.0 |
| ip ospf hello-interval 1 | ip ospf hello-interval 2 |
| router ospf 1 | router ospf 2 |
| network 192.168.1.0 0.0.0.255 area 1 | network 192.168.1.2 0.0.0.0 area 1 |

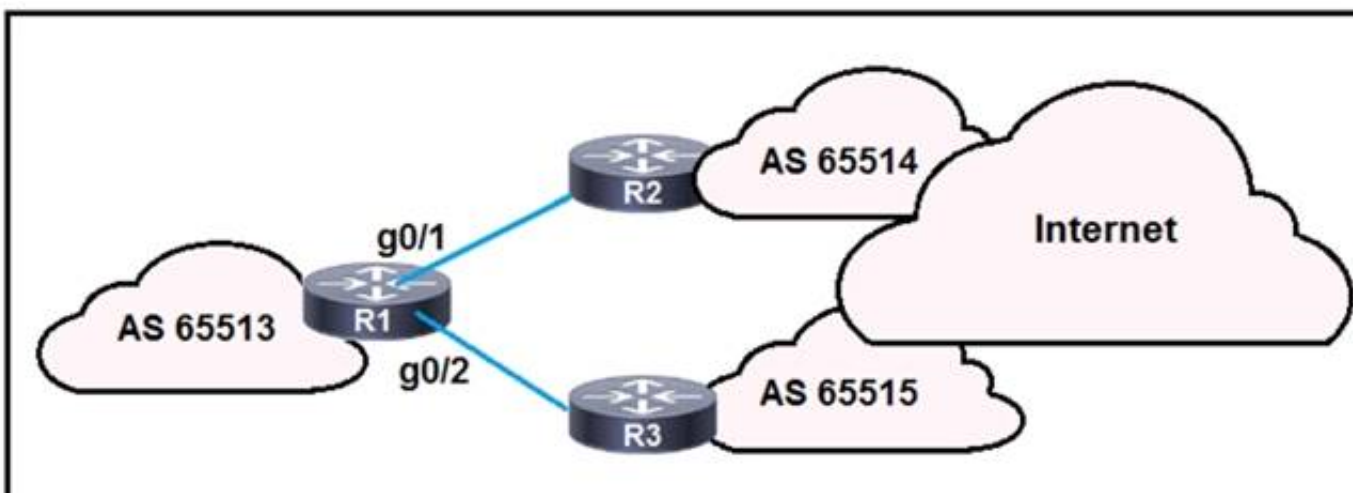
What reestablishes the OSPF neighbor relationship between Router 1 and Router 2?

- A. authentication is added to the configuration
- B. correct wildcard mask is used on Router 2
- C. OSPF process IDs match
- D. hello intervals match

Answer: D

NEW QUESTION 93

Refer to the exhibit:



R1 is connected to two service providers and is under a DDoS attack. Which statement about this design is true if uRPF in strict mode is configured on both interfaces?

- A. R1 accepts source addresses on interface gigabitethernet0/1 that are private addresses

- B. R1 permits asymmetric routing as long as the AS-RATH attribute entry matches the connected AS
- C. R1 drops destination addresses that are routed to a null interface on the router
- D. R1 drops all traffic that ingresses either interface that has a FIB entry that exits a different interface

Answer: D

NEW QUESTION 95

Refer to the exhibit.

```
RP/0/0/CPU0:R2#debug isis adjacencies
RP/0/0/CPU0:Apr 2 20:57:00.421 : isis[1010]: RECV P2P IIH (L2)
from GigabitEthernet0/0/0/0 SNPA fal6.3ebe.a7bc: System ID R2,
Holdtime 30, length 1429
RP/0/0/CPU0:Apr 2 20:57:01.761 : isis[1010]: SEND P2P IIH (L1)
on GigabitEthernet0/0/0/0: Holdtime 30s, Length 41
```

A network operator is attempting to configure an IS-IS adjacency between two routers, but the adjacency cannot be established. To troubleshoot the problem, the operator collects this debugging output. Which interface are misconfigured on these routers?

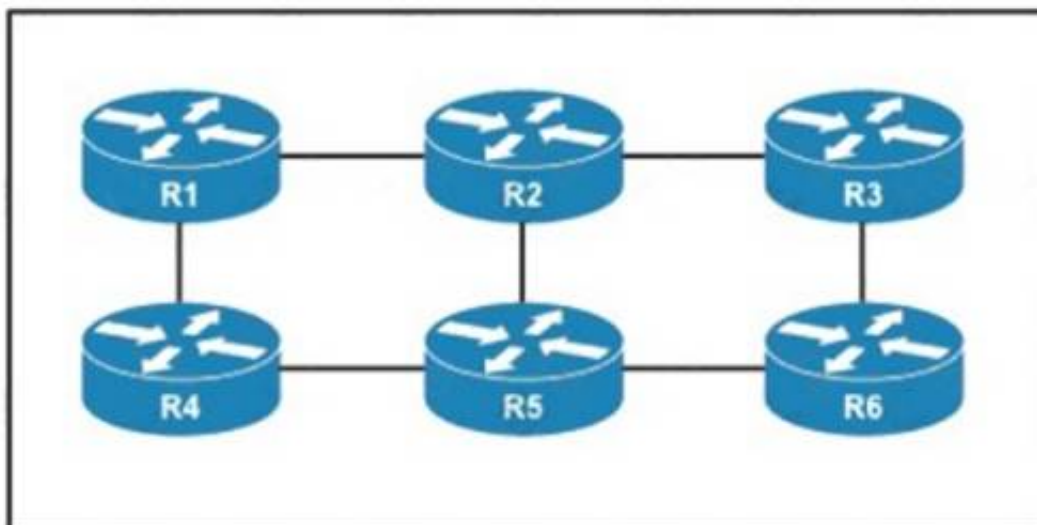
- ☒ The peer router interface is configured as Level 1 only, and the R2 interface is configured as Level 2 only
- ☐ The R2 interface is configured as Level 1 only, and the peer router interface is configured as Level 2 only
- ☐ The R2 interface is configured as point-to-point, and the peer router interface is configured as multipoint
- ☐ The peer router interface is configured as point-to-point, and the R2 interface is configured as multipoint

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

Answer: B

NEW QUESTION 99

Refer to the exhibit.



An engineer is configuring an administrative domain in the given multi-vendor environment with PIM-SM. Which feature must the engineer implement so that devices will dynamically learn the RP?

- A. Auto-RP
- B. BIDIR-PIM
- C. SSM
- D. BSR

Answer: D

NEW QUESTION 103

How can a network administrator secure rest APIs?

- A. They can allow read and write privileges to all users
- B. They can ensure that user sessions are authenticated using TACACS+ only
- C. They can have a general administrator login for multiple users to access that has command entries logged
- D. They can authenticate user sessions and provide the appropriate privilege level

Answer: D

NEW QUESTION 105

A customer of an ISP requests support to setup a BGP routing policy. Which BGP attribute should be configured to choose specific BGP speakers as preferred exit points for the customer AS?

- A. highest local preference outbound
- B. lowest local preference inbound
- C. highest local preference inbound
- D. lowest multi-exit discriminator

Answer: A

NEW QUESTION 109

An network engineer is deploying VRF on ASBR router R1. The interface must have connectivity over an MPLS VPN inter-AS Option AB network. Which configuration must the engineer apply on the router to accomplish this task?

A)

```
R1(config)# interface ethernet 1/0
R1(config-if)# ip vrf forwarding CISCO
R1(config-if)# mpls ip
```

B)

```
R1(config)# interface ethernet 1/0
R1(config-if)# ip address 192.168.1.254 255.255.255.0
R1(config-if)# ip vrf forwarding CISCO
R1(config-if)# shutdown
```

C)

```
R1(config)# interface ethernet 1/0
R1(config-if)# ip vrf forwarding CISCO
R1 (config-if)# ip ospf 1 area 0
```

D)

```
R1(config)# interface ethernet 1/0
R1(config-if)# ip vrf forwarding CISCO
R1(config-if)# mpls bgp forwarding
```

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

Answer: D

NEW QUESTION 112

Which function does RSVP perform in a Cisco MPLS TE environment?

- A. It establishes targeted LDP sessions between neighbors that are directly connected.
- B. It signals to LDP protocol along the path that a Cisco MPLS TE will be configured.
- C. It reserves bandwidth for LDP sessions between routers participating in a Cisco MPLS TE.
- D. It reserves the bandwidth along the path between the head-end and tail-end router.

Answer: D

NEW QUESTION 113

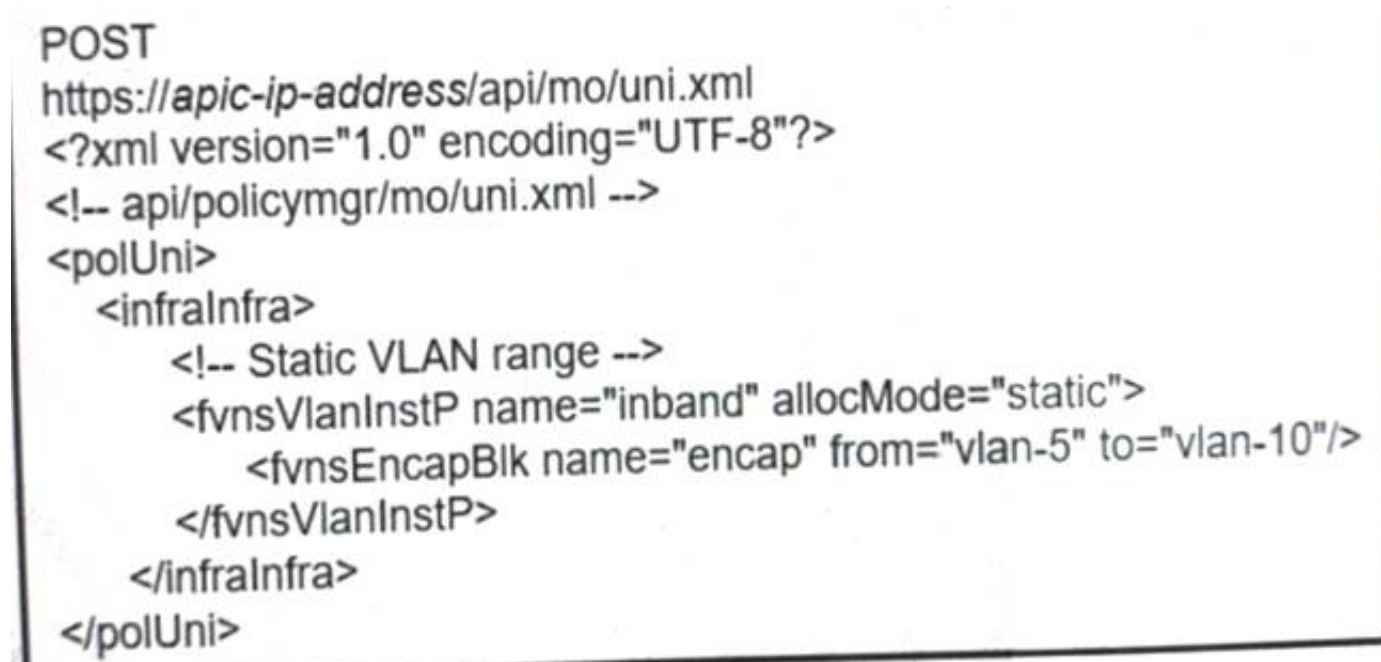
A network operator needs to implement PIM-SSM multicast configuration on customer's network so that users in different domains are able to access and stream live traffic. Which two actions must the engineer perform on the network to make the streaming work? (Choose two.)

- A. Configure at least one MSDP peer on the network
- B. Enable IGMP version 2 at the interface lever.
- C. Enable PIM sparse mode on the device.
- D. Enable IGMP version 3 at the interface level.
- E. Enable PM dense mode on the device.

Answer: AD

NEW QUESTION 116

Refer to the exhibit.



```
POST
https://apic-ip-address/api/mo/uni.xml
<?xml version="1.0" encoding="UTF-8"?>
<!-- api/policymgr/mo/uni.xml -->
<polUni>
  <infrInfra>
    <!-- Static VLAN range -->
    <fvnsVlanInstP name="inband" allocMode="static">
      <fvnsEncapBlk name="encap" from="vlan-5" to="vlan-10"/>
    </fvnsVlanInstP>
  </infrInfra>
</polUni>
```

What does the script configure?

- A. a VLAN namespace
- B. selectors for the in-band management

- C. a physical domain
- D. a static VLAN

Answer: D

NEW QUESTION 117

Drag and drop the OSPF area types from the left onto the correct statements on the right

| | |
|----------------|--|
| backbone | required area that allows interarea communication |
| not-so-stubby | area that can learn interarea routes and the default route |
| stub | area that can learn only the default route and routes within its own area |
| totally stubby | area that can serve as a redistribution point for external routes to enter the OSPF domain |

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

| | |
|----------------|----------------|
| backbone | backbone |
| not-so-stubby | stub |
| stub | totally stubby |
| totally stubby | not-so-stubby |

NEW QUESTION 121

Drag and drop the descriptions from the left onto the corresponding OS types on the right.

| | |
|---------------------------------|-----------------------------------|
| It is monolithic | IOS XE <div></div> <div></div> |
| It uses a Linux-based kernel | |
| It has a separate control plane | IOS <div></div> <div></div> |
| It shares memory space | |

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

IOS XE:
It uses linux-based kernel
It has a separate control plane
IOS:
It is monolithic
It shares memory space

NEW QUESTION 126

What do Chef and Puppet have in common?

- A. use Ruby
- B. use a master server
- C. require modules to be created from scratch
- D. manage agents referred to as minions

Answer: B

NEW QUESTION 128

A network engineer is configuring Flexible NetFlow and enters these commands

```
sampler NetFlow1
mode random one-out-of 100
```

```
interface fastethernet 1/0
flow-sampler NetFlow1
```

What are two results of implementing this feature instead of traditional NetFlow? (Choose two.)

- A. CPU and memory utilization are reduced.
- B. Only the flows of top 100 talkers are exported.
- C. The data export flow is more secure
- D. The number of packets to be analyzed are reduced.
- E. The accuracy of the data to be analyzed is improved.

Answer: AD

NEW QUESTION 129

An engineer is implementing MPLS to monitor within the MPLS domain. Which must the engineer perform to prevent packets from being forwarded beyond the service provider domain when the LSP is down?

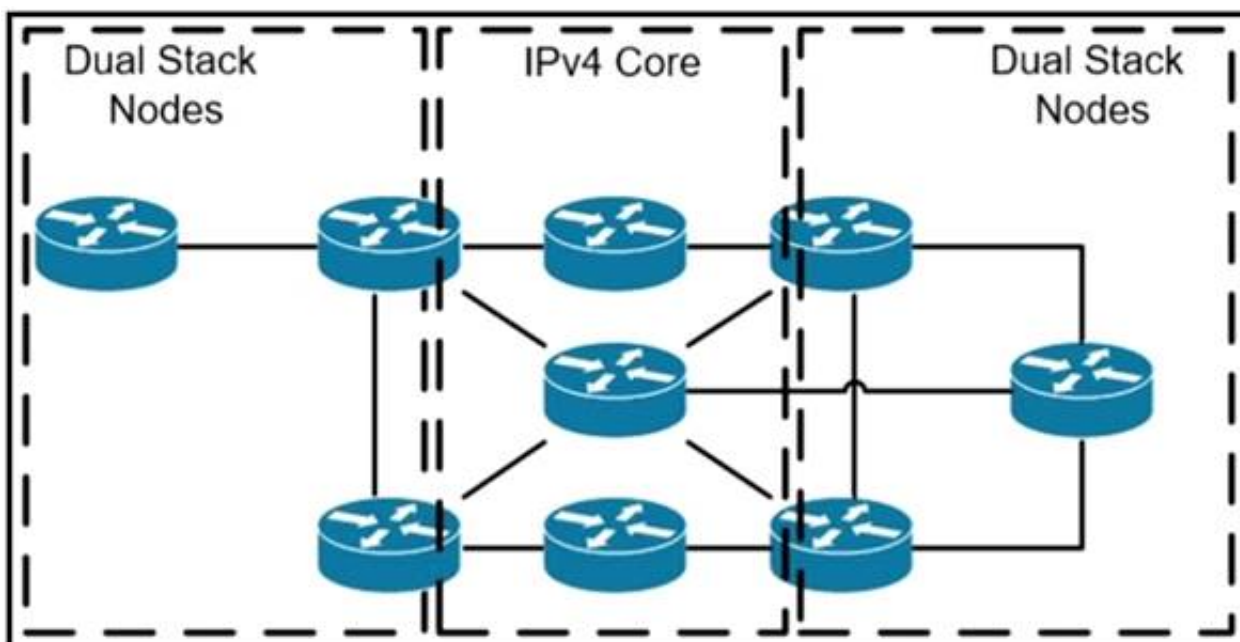
- ☒ Disable IP redirects only on outbound interfaces.
- ☐ Implement the destination address for the LSP echo request packet in the 127 x y z/8 network
- ☐ Disable IP redirects on all ingress interfaces.
- ☐ Configure a private IP address as the destination address of the headend router of Cisco MPLS TE.

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

Answer: B

NEW QUESTION 134

Refer to the exhibit.



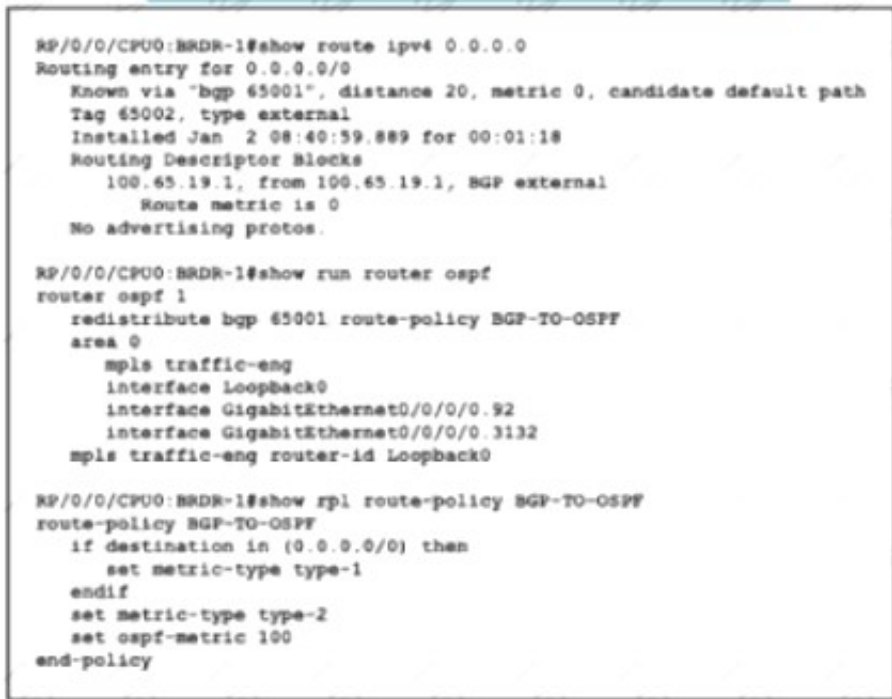
A network operator has two IPv4 and IPv6 dual-stacked network on each side of the IPv4 core network. The operator must be able to provide connectivity between them while using specific assigned IPv6 space provided from the company IP administrator team. Which technology should the network operator use to accomplish this goal?

- A. 6rd
- B. NAT46
- C. DS-Lite
- D. NAT44

Answer: B

NEW QUESTION 139

Refer to the exhibit.



Router BRDR-1 is configured to receive the 0.0.0.0/0 and 172.17.1.0/24 network via BGP and advertise then into OSPF area 0. An engineer has noticed that the OSPF domain is receiving only the 172.17.1.0/24 route and default router 0.0.0.0/0 is still missing. Which configuration must an engineer apply to resolve this problem?

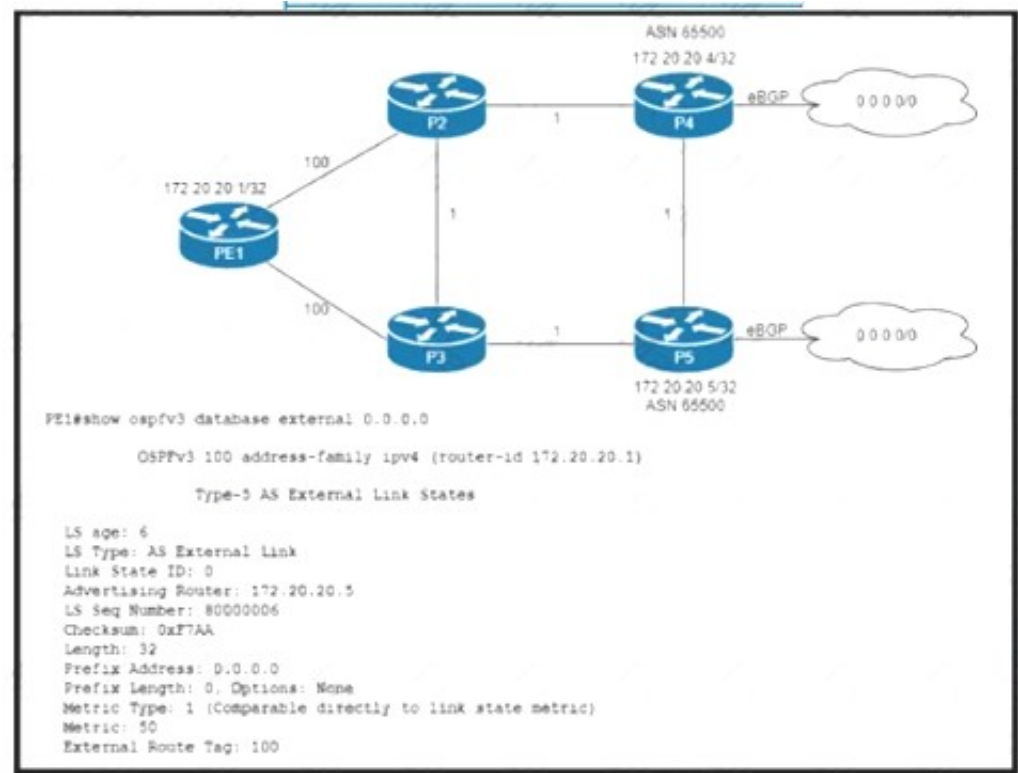
- ☐ router ospf 1
default-information originate always
end
- ☐ router ospf 1
redistribute bgp 65001 metric 100 route-policy BGP-TO-OSPF
end
- ☐ router ospf 1
default-metric 100
end
- ☒ router ospf 1
default-information originate
end

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

Answer: D

NEW QUESTION 140

Refer to the exhibit.



Router P4 and P5 receive the 0.0.0.0/0 route from the ISP via eBGP peering P4 is the primary Internet gateway router, and P5 is its Backup. P5 is already advertising a default route into OSPF domain. Which configuration must Be applied to P4 so that advertises a default route Into OSPF and Becomes me primary internet gateway for the network?

- ☐ configure terminal
router ospfv3 100
address-family ipv4 unicast
default-information originate always metric 40 metric-type 1
end
- ☐ configure terminal
router ospfv3 100
address-family ipv4 unicast
default-information originate metric 40 metric-type 2
end
- ☐ configure terminal
router ospfv3 100
address-family ipv4 unicast
default-information originate metric 40 metric-type 1
end
- ☐ configure terminal
router ospfv3 100
address-family ipv4 unicast
redistribute bgp 65500 metric 40 metric-type 1
end

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

Answer: C

NEW QUESTION 144

Which two routing protocols support Cisco MPLS TE tunnels? (Choose two.)

- A. IS-IS
- B. RIP
- C. BGP
- D. OSPF
- E. EIGRP

Answer: AD

NEW QUESTION 146

A network engineer must enable the helper router to terminate the OSPF graceful restart process if it detects any changes in the LSA. Which command enables this feature?

- A. nsf ietf helper disable
- B. nsf cisco enforce global
- C. nsf ietf helper strict-lsa-checking
- D. nsf Cisco helper disable

Answer: C

NEW QUESTION 151

Refer to the exhibit.

```
R1
interface Ethernet1/1
ip address 172.16.33.1 255.255.255.255
interface Ethernet1/0
ip address 172.16.32.1 255.255.255.0
router ospf 20
network 172.16.0.0 0.0.255.255 area 0

R2
interface Ethernet1/1
ip address 172.16.30.1 255.255.255.255
interface Ethernet1/0
ip address 172.16.32.2 255.255.255.0
router ospf 20
network 172.16.0.0 0.0.255.255 area 0
distribute-list 1 in
access-list 1 permit 172.16.32.0. 0.0.0.255

R2# show ip route
172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
C       172.16.32.0/24 is directly connected, Ethernet1/0
C       172.16.30.1/32 is directly connected, Ethernet1/1
```

A network engineer notices that router R2 is failing to install network 172.16.33.1/32 in the routing table. Which configuration must the engineer apply to R2 to fix the problem?

- A. R2(config)# access-list 1 permit 172.16.33.0 255.0.0.0
- B. R2(config)# access-list 1 permit 172,16,33.0 255,255,255,0
- C. R2(config)# access-list 1 permit 172.16.33.0 0.0.0.255
- D. R2(config)# access-list 1 permit 172,16,33.0 255.255,0,0

Answer: C

NEW QUESTION 156

Which control plane protocol is used between Cisco SD-WAN routers and vSmart controllers?

- A. OTCP
- B. OMP
- C. UDP
- D. BGP

Answer: B

NEW QUESTION 161

Refer to the exhibit:

```
R1:
!
interface FastEthernet0/0
  ip address 10.1.12.1 255.255.255.0
  duplex full
!
router ospf 1
  network 0.0.0.0 255.255.255.255 area 0
R2:
!
interface FastEthernet0/0
  ip address 10.1.12.2 255.255.255.252
  duplex full
!
router ospf 1
  network 0.0.0.0 255.255.255.255 area 0
```

R1 and R2 are directly connected with Fast Ethernet interfaces and have the above configuration applied. OSPF adjacency is not formed. When the debug ip ospf hello command is issued on R1, these log messages are seen.

```
*Mar 6 21:57:33.051: OSPF-1 HELLO Fa0/0: Mismatched hello parameters from 10.1.12.2
*Mar 6 21:57:33.051: OSPF-1 HELLO Fa0/0: Dead R 40 C 40, Hello R 10 C 10 Mask R
255.255.255.252 C 255.255.255.0
```

Which command can be configured on routers R1 and R2 on f0/0 interfaces to form OSPF adjacency?

- A. ip ospf network non-broadcast
- B. ip ospf network point-to-multipoint non-broadcast
- C. ip ospf network point-to-point
- D. ip ospf network broadcast

Answer: C

NEW QUESTION 166

A network engineer is implementing a QoS policy for outbound management traffic classification and marking on a CPE device with these requirements:

- Management protocols must be marked with DSCP AF class 2 with low drop probability.
- Monitoring protocols must be marked with DSCP AF class 1 with low drop probability.
- All remaining traffic must be marked with a DSCP value of 0.

Which configuration must the engineer implement to satisfy the requirements?

A)

```
policy-map cpe-mgmt-policy
  class management
    set ip dscp af21
  class monitoring
    set ip dscp af11
  class class-default
    set ip dscp af0
end
```

B)


```
policy-map cpe-mgmt-policy
  class management
    set ip dscp af23
  class monitoring
    set ip dscp af13
  class class-default
    set ip dscp af0
end
```

C)

```
policy-map cpe-mgmt-policy
  class management
    set ip dscp af21
  class monitoring
    set ip dscp af11
  class class-default
    set ip dscp default
end
```

D)

```
policy-map cpe-mgmt-policy
  class management
    set ip dscp af23
  class monitoring
    set ip dscp af13
  class class-default
    set ip dscp default
end
```

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

Answer: C

Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus1000/sw/4_0/qos/configuration/guide/nexus10

NEW QUESTION 169

What are the two uses of the YANG data modeling language? (Choose two.)

- A. It is used to access a device by HTTP.
- B. It is used to model the configuration used by NETCONF operations.
- C. It is used to shape state data of network elements.
- D. It is used to replace RESTCONF as a mechanism to install and manipulate configuration.
- E. It is used to replace the OSI model for troubleshooting.

Answer: BC

NEW QUESTION 172

Refer to the exhibit.

```
router bgp 65515
  aggregate-address 192.168.0.0 255.255.0.0 summary-only as-set
```

An engineer configured BGP summarization on a customer's network. Which route is advertised to BGP peers?

- A. 192.0.0.0/16
- B. 192168.0.0/16
- C. 192.168.1.0/24
- D. 192168.0.5/30

Answer: B

NEW QUESTION 176

A network administrator is planning a new network with a segment-routing architecture using a distributed control plane. How is routing information distributed on such a network?

- A. Each segment is signalled by an SR controller, but each segment makes its own steering decisions based on SR policy.
- B. Each segment is signalled by MPLS, and each segment makes steering decisions based on the routing policy pushed by BGP.
- C. Each segment is signalled by an SR controller that makes the steering decisions for each node.
- D. Each segment is signalled by a compatible routing protocol and each segment makes its own steering decisions based on SR policy.

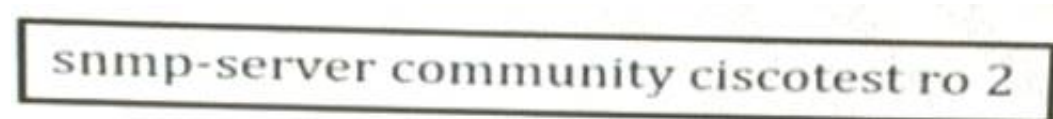
Answer: D

Explanation:

<https://www.cisco.com/c/en/us/support/docs/multiprotocol-label-switching-mpls/mpls/215215-segment-routing->

NEW QUESTION 180

Refer to the exhibit:



What is significant about the number 2 in the configuration?

- A. It is the numeric name of the ACL that contains the list of SNMP managers with access to the agent
- B. It dictates the number of sessions that can be open with the SNMP manager
- C. It indicates two SNMP managers can read and write with the agent using community string cisco test
- D. It represents the version of SNMP running

Answer: A

NEW QUESTION 184

A company needs to improve the use of the network resources that is used to deploy internet access service to customers on separate backbone and internet access network. Which two major design models should be used to configure MPLS L3VPNs and internet service in the same MPLS backbone? (Choose two.)

- A. Carriage of full internet routes in a VPN, in the case of internet access VPNS
- B. Internet routing through global routing on a PE router.
- C. Internet access routing as another VPN in the ISP network.
- D. Internet access through leaking of internet routed from the global table into the L3VPN VRF
- E. Internet access for global routing via a separate interface in a VRF

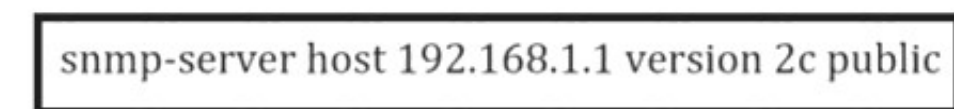
Answer: CE

Explanation:

<http://etutorials.org/Networking/MPLS+VPN+security/Part+II+Advanced+MPLS+VPN+Security+Issues/Chapter+4.+Security>

NEW QUESTION 186

Refer to the exhibit:



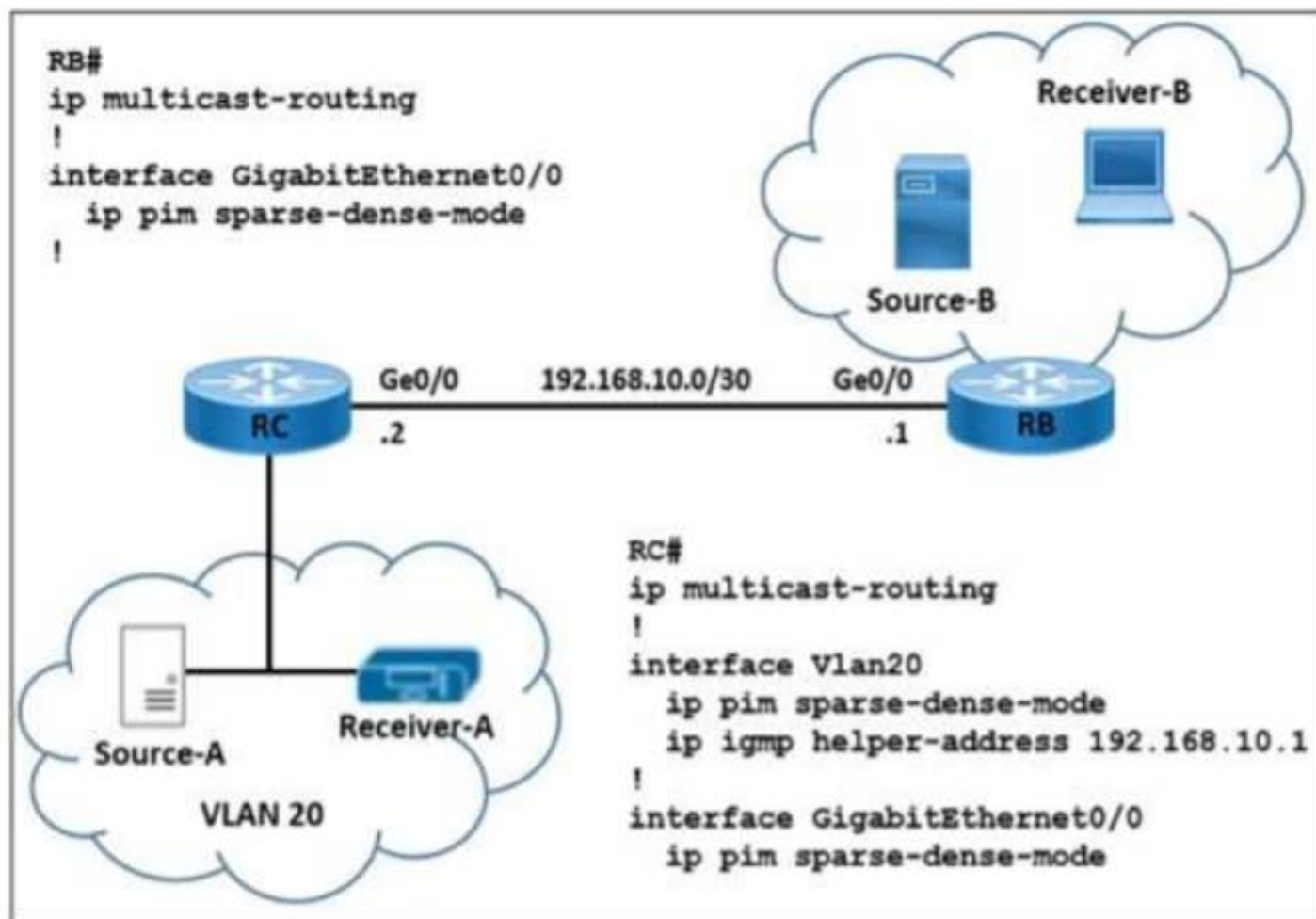
A network administrator wants to enhance the security for SNMP for this configuration. Which action can the network administrator implement?

- A. Re-configure to use SNMPv2 with MD5 authentication
- B. Add a community string to the existing entry
- C. Re-configure to use SNMPv3.
- D. Maintain the configuration but switch to an encrypted password for device access through SSH

Answer: C

NEW QUESTION 187

Refer to the exhibit.



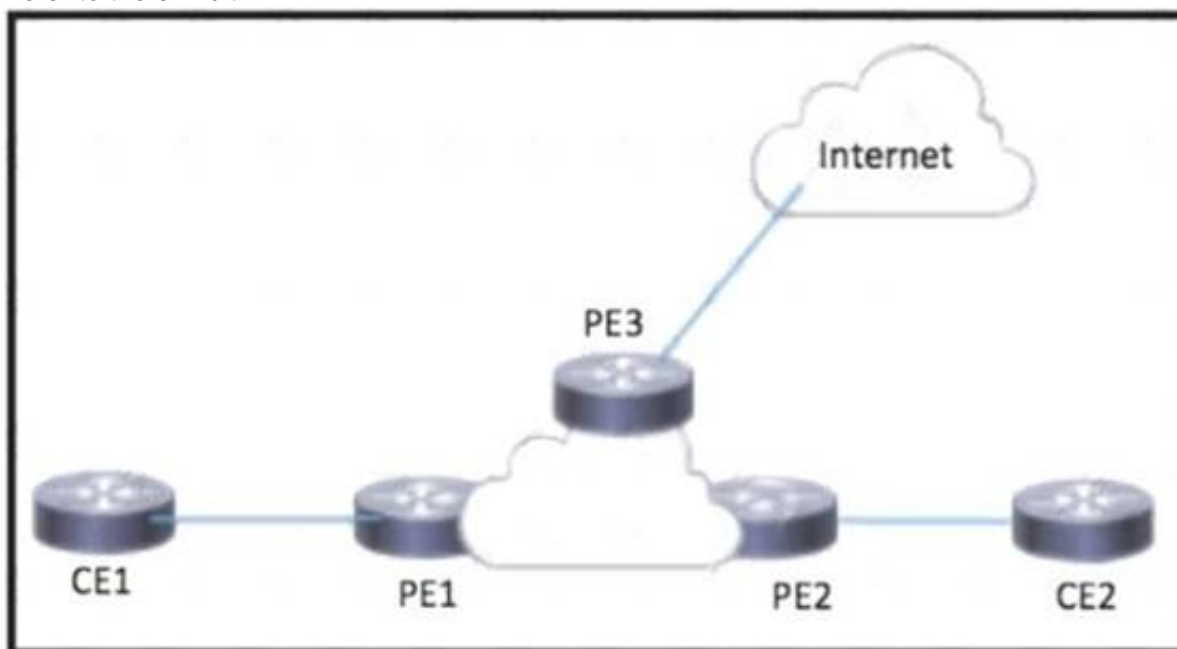
A network engineer is implementing multicast Source-A to send a multicast stream for Receiver-A, and multicast Source-B to send a multicast stream for Receiver-B. Router RC forwards the IGMP host a report and leaves messages to IP address 192.168.10.1. How must the multicast features be implemented to prevent RB from receiving multicast flooding from Source-A?

- A. Change the helper-address value to 192.168.10.2 on RC.
- B. Enable ip pim neighbor-filter on RC interface Ge0/0.
- C. Configure PIM-SSM on RB and RC interface Ge 0/0.
- D. Enable ip pim passive on RB interface Ge0/0.

Answer: D

NEW QUESTION 192

Refer to the exhibit.



CE1 and CE2 require connectivity to the internet through the ISP connected to PE3. What should an engineer configure to complete this task?

- A. PE2 must be configured to serve as a route reflector for PE3 routes learned from the internet.
- B. PE2 then shares the routes with CE1 and CE2.
- C. CE1 and CE2 must be configured with a route distinguisher in the PE1 VRF that dynamically imports the route from the internet.
- D. CE1 and CE2 must be configured to use a static default route with a next-hop of PE3 to reach internet routes.
- E. PE1 must be configured with an import route target in the CE1 VRF that matches the export route target for the internet VRF on PE3.

Answer: A

NEW QUESTION 193

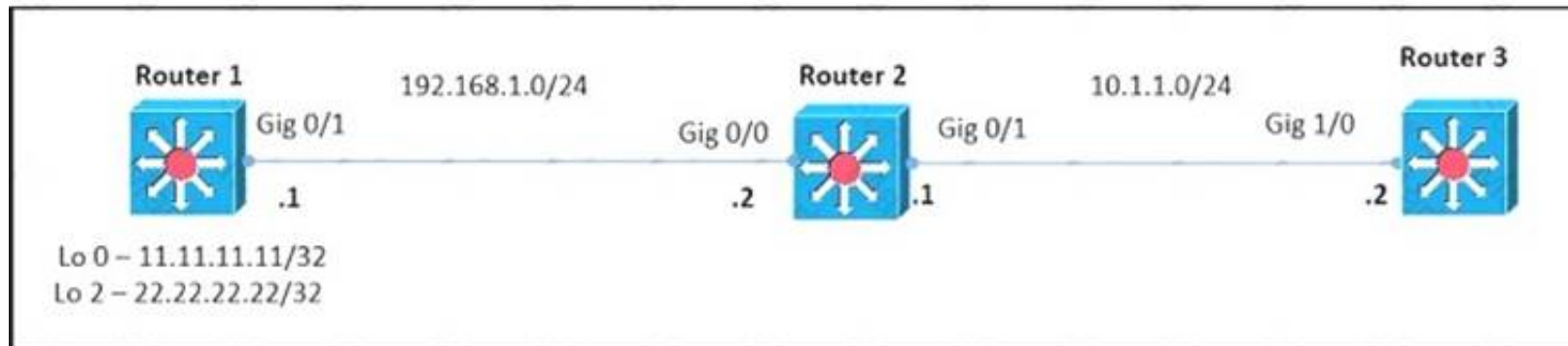
While implementing TTL security, an engineer issues the `PE(config-router-af)#neighbor 2.2.2.2 ttl-security hops 2` command. After issuing this command, which BGP packets does the PE accept?

- A. from 2.2.2.2, with a TTL of less than 2
- B. to 2.2.2.2, with a TTL of less than 253
- C. from 2.2.2.2, with a TTL of 253 or more
- D. to 2.2.2.2, with a TTL of 2 or more

Answer: C

NEW QUESTION 198

Refer to the exhibit.



Router 1 and router 2 are running IBGP, and router 2 and router 3 are running OSPF Area 0. Router 1 is advertising loopback interfaces Lo0 and Lo2 and router 2 is redistributing BGP into OSPF Area 0. Which configuration must an administrator apply so that router 2 uses a route map to redistribute only the internal route from Lo 2?

A)

```
ip prefix-list BGP-to-ospf seq 5 permit 22.22.22.0/24
```

```
route-map BGP-To-OSPF permit 10
match ip address prefix-list BGP-to-ospf
```

```
router ospf 1
redistribute bgp 100 metric 100 metric-type 1 subnets route-map BGP-To-OSPF
```

B)

```
ip prefix-list BGP-to-ospf seq 5 permit 22.22.22.0/24
```

```
route-map BGP-To-OSPF permit 10
match ip address prefix-list BGP-to-ospf
```

```
router ospf 1
redistribute bgp 100 route-map BGP-To-OSPF
```

C)

```
ip prefix-list BGP-to-ospf seq 5 permit 22.22.22.22/32
```

```
router bgp 100
bgp redistribute-internal
```

```
route-map BGP-To-OSPF permit 10
match ip address prefix-list BGP-to-ospf
```

```
router ospf 1
redistribute bgp 100 metric 100 metric-type 1 subnets route-map BGP-To-OSPF
```

D)

```
ip prefix-list BGP-to-ospf seq 5 permit 22.22.22.0/24
```

```
router bgp 100
bgp redistribute-static
```

```
route-map BGP-To-OSPF permit 10
match ip address prefix-list BGP-to-ospf
```

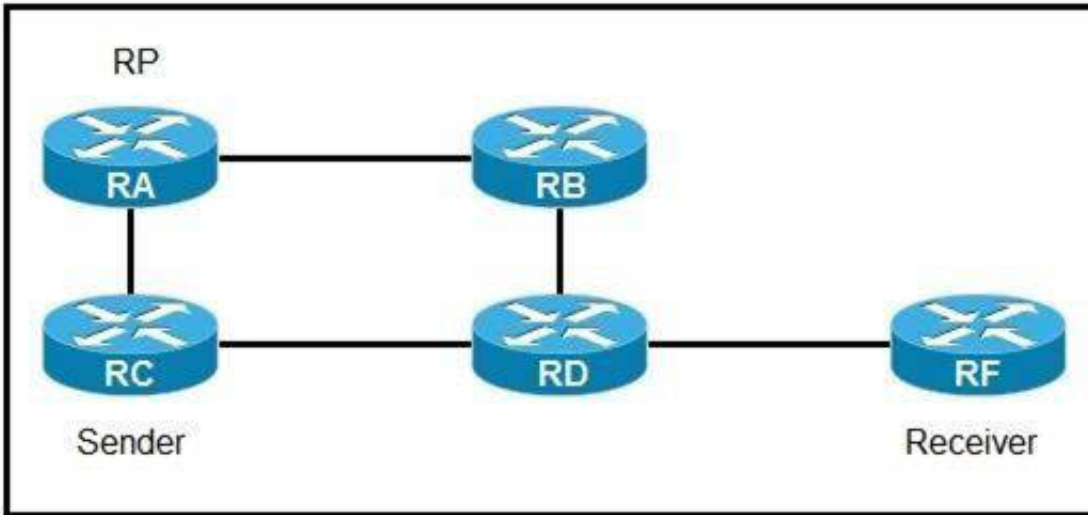
```
router ospf 1
redistribute bgp 100 metric-type 2 route-map BGP-To-OSPF
```

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

Answer: C

NEW QUESTION 203

Refer to the exhibit:



If router A is the RP, which PIM mode can you configure so that devices will send multicast traffic toward the RP?

- A. PIM-SM
- B. PIM-DM
- C. BIDIR-PIM
- D. PIM-SSM

Answer: C

NEW QUESTION 208

Refer to the exhibit.

```
RP/0/RP0/CPU0:XR1#do sh bundle

Bundle-Ether11
  Status: Up
  Local links <active/standby/configured>: 1 / 2 / 3
  Local bandwidth <effective/available>: 1000000 (1000000) kbps
  MAC address (source): 0007.ec14.cc2b (Chassis pool)
  Inter-chassis link: No
  Minimum active links / bandwidth: 1 / 1 kbps
  Maximum active links: 1
  Wait while timer: 2000 ms
  Load balancing:
    Link order signaling: Not configured
    Hash type: Default
    Locality threshold: None
  LACP: Operational
    Flap suppression timer: Off
    Cisco extensions: Disabled
    Non-revertive: Disabled
  mLACP: Not configured
  IPv4 BFD: Not configured
  IPv6 BFD: Not configured

Port          Device      State      Port ID      B/W, kbps
-----
Gi0/0/0/0     Local      Standby    0x8000, 0x0003  1000000
  Link is Standby due to maximum-active links configuration
Gi0/0/0/1     Local      Standby    0x8000, 0x0002  1000000
  Link is Standby due to maximum-active links configuration
Gi0/0/0/2     Local      Active     0x8000, 0x0001  1000000
  Link is Active
```

A network operator needs to shut down interface Gi0/0/0/2 for maintenance. What occurs to the interface states of Gi0/0/0/0 and Gi0/0/0/1?

- A. Gi0/0/0/1 and Gi0/0/0/0 become active
- B. Gi0/0/0/1 and Gi0/0/0 remains standby
- C. Gi0/0/0/0 becomes active
- D. Gi0/0/0/1 remains standby
- E. Gi0/0/0/1 becomes active Gi0/0/0/0 remains standby

Answer: D

NEW QUESTION 212

Refer to the exhibit.

```
configure
policy-map ciscopolICY
  class ciscotest
    set precedence 1
  exit
exit
interface pos 0/2/0/0
  service-policy output ciscopolICY
commit
```

An engineer needs to implement this QoS policy on customer's network due to ongoing slow network issues. What will be the effect on the network when the engineer implements this configuration?

- A. Traffic that is identified in the ciscotest class map will be remarked from IP precedence 1 to DSCP AF11 when it enters the pos0/2/0/0 interface.
- B. Traffic that is identified in the ciscopolicy class map will be marked with IP precedence 1 when it enters the pos0/2/0/0 interface.
- C. Traffic that is identified in the ciscopolicy class map will be remarked from IP precedence 1 to DSCP AF11 when it exits the pos0/2/0/0 interface.
- D. Traffic that is identified in the ciscotest class map will be marked with IP precedence 1 when it exits the pos0/2/0/0 interface.

Answer: D

NEW QUESTION 217

Refer to the exhibit.

```
R1# configure terminal
R1(config)# router isis area2
R1(config-router)# metric-style wide level-1
```

An engineer is configuring multitopology IS-IS for IPv6 on router R1. Which additional configuration must be applied to the router to complete the task?

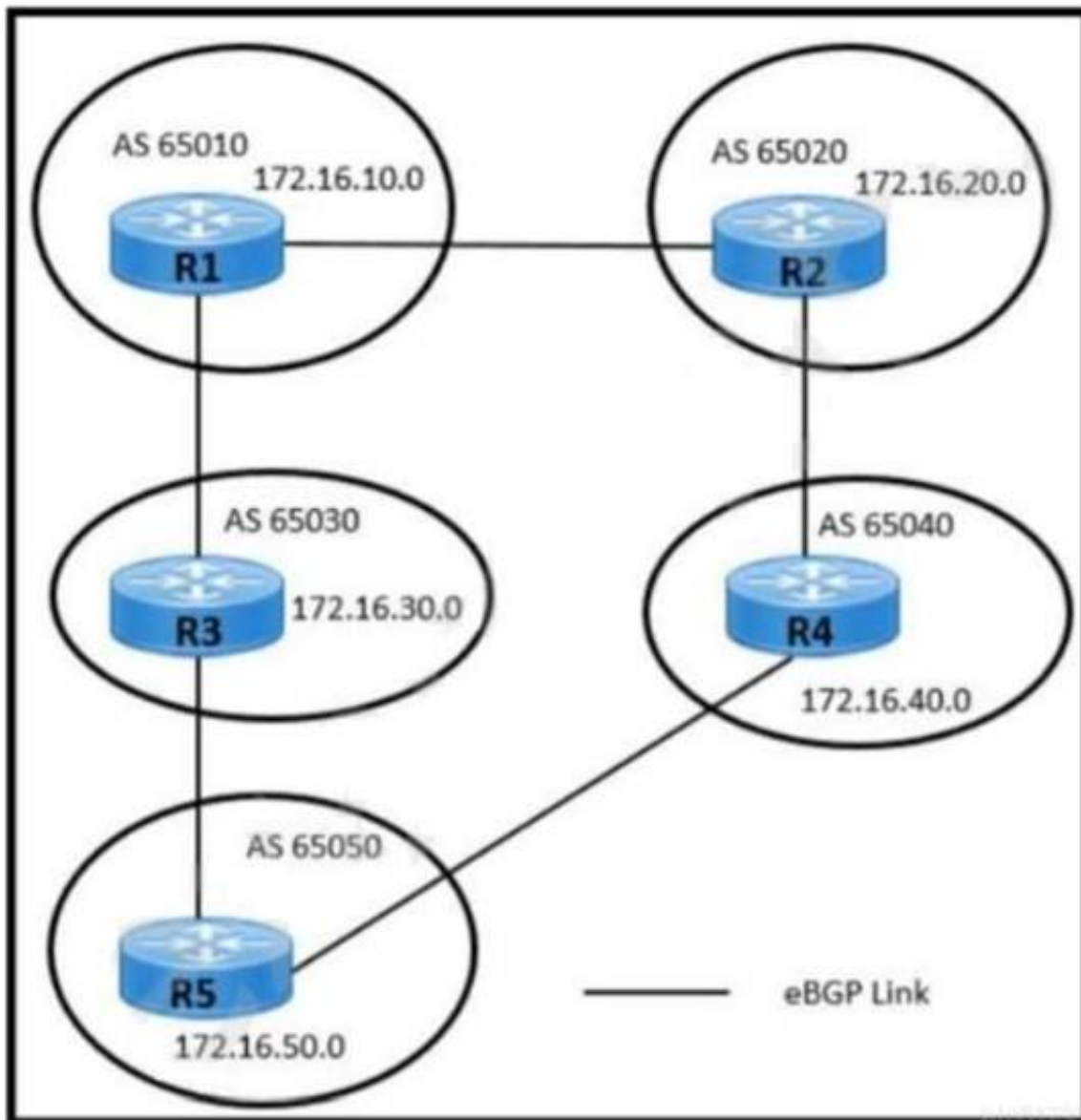
- ☒ R1# configure terminal
R1(config)# router isis area1
R1(config-router)# metric-style wide level-1
R1(config-router)# address-family ipv6
R1(config-router-af)# multi topology
- ☐ R1# configure terminal
R1(config)# router isis area2
R1(config-router)# metric-style wide
R1(config-router)# address-family ipv6
R1(config-router-af)# multi topology
- ☐ R1# configure terminal
R1(config)# router isis area1
R1(config-router)# metric-style wide level-2
R1(config-router)# address-family ipv6
R1(config-router-af)# multi-topology
- ☐ R1# configure terminal
R1(config)# router isis area2
R1(config-router)# address-family ipv6
R1(config-router-af)# multi-topology

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

Answer: D

NEW QUESTION 222

Refer to the exhibit.



Users in AS 65010 are connected with the application server in AS 65050 with these requirements:

AS 65010 users are experiencing latency and congestion to connect with application server 172.16.50.10. AS 65030 must be restricted to become Transient Autonomous System for traffic flow.

Links connected to AS 65020 and AS 65040 are underutilized and must be used efficiently for traffic. Which two configurations must be implemented to meet these requirements? (Choose two.)

- A. Apply the AS-Path route-map policy for traffic received from R3.
- B. Configure the route map to prepend the AS-Path attribute for R5-R3 BGP peering.
- C. Apply the MED route-map policy for traffic received from R4.
- D. Configure a higher Local preference for R5-R4 BGP peering.
- E. Configure the route map to set the MED 50 attribute for R5-R4 BGP peering.

Answer: BE

NEW QUESTION 226

Which additional feature does MPLS DiffServ tunneling support?

- A. matching EXP and DSCP values
- B. interaction between MPLS and IGP
- C. using GRE tunnels to hide markings
- D. PHB layer management

Answer: D

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_te_diffserv/configuration/15-mt/mp-te-diffserv-15-mt-bo

NEW QUESTION 227

Refer to the exhibit.

```
R1(config)# router isis areal
R1(config-router)# net 49.0001.0000.0000.000b.00

R1(config-router)# interface loopback 0
R1(config-if)# ipv6 address 2001:0000:1001:1000::1/128
R1(config-if)# exit

R1(config)# interface Ethernet 1/2
R1(config-if)# ipv6 address 2001:0000:1001:100A::1/64
R1(config-if)# ipv6 router isis areal
R1(config-if)# exit
```

A network engineer with an employee id: 3812:12:993 has started to configure router R1 for IS-IS as shown. Which additional configuration must be applied to configure the IS-IS instance to advertise only network prefixes associated to passive interfaces?

- ☒ R1(config)# router isis area1
R1(config-router)# passive-interface loopback 0
R1(config-router)# address-family ipv6
R1(config-router-af)# advertise passive-only
- ☐ R1(config-router)# address-family ipv6
R1(config-router-af)# advertise passive-only
- ☐ R1(config)# router isis area1
R1(config-router)# loopback 0 passive-interface
R1(config-router)# address-family ipv6
R1(config-router-af)# prc-interval 20
- ☐ R1(config)# router isis area1
R1(config-router)# passive-interface loopback 0

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

Answer: A

NEW QUESTION 229

Refer to the exhibit.

172.16.0.0/16

```
AS 321, med 420, external, rid 10.2.54.12 via 10.2.54.12
AS 51, med 500, external, rid 7.4.5.2 via 7.4.5.2
AS 321, med 300, internal, rid 10.2.34.5 via 10.2.34.5
```

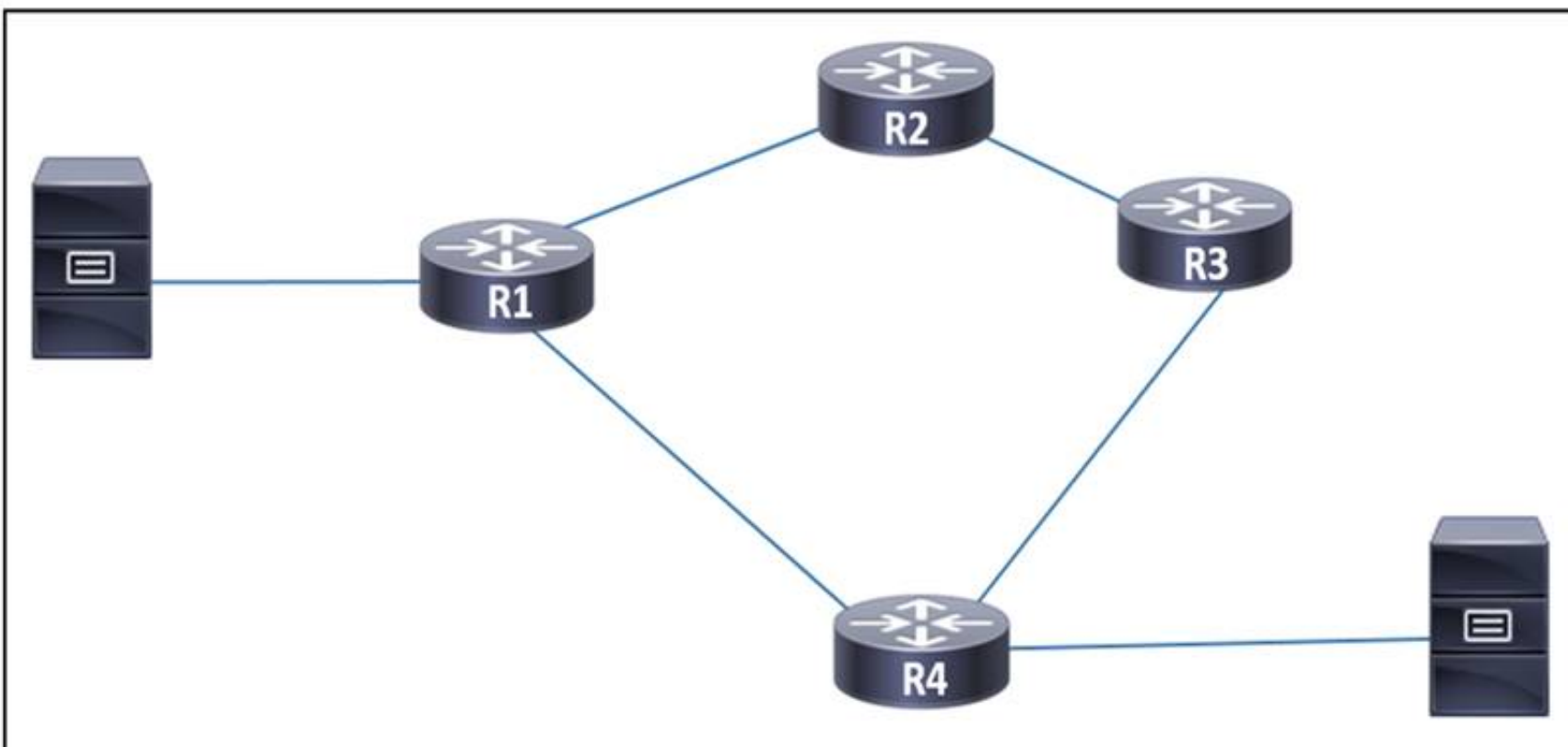
Tier 2 ISP A on AS 653 is connected to two Tier 1 ISPs on AS 321 and AS 51 respectively. The network architect at ISP A is planning traffic flow inside the network to provide predictable network services. Cisco Express Forwarding is disabled on the edge router. How should the architect implement BGP to direct all traffic via the Tier 1 ISP with next-hop 7.4.5.2?

- A. Implement the BGP routing protocol and run the bgp deterministic-med command.
- B. Implement MP-BGP with a 4-byte AS number with the bgp best path compare-routerid command.
- C. Implement the BGP routing protocol and the maximum-paths 2 configuration.
- D. Implement BGP route-reflector functionality with the bgp always-compare-med configuration.

Answer: A

NEW QUESTION 230

Refer to the exhibit.



A network engineer observed congestion between routers R1 and R4, which are connected on a point-to-point link. Two servers that reside on networks on R1 and R4 generate heavy traffic between them with most traffic going from R4 to R1. To improve overall performance, the engineer wants to drop inbound packets that exceed a configured threshold, without disrupting traffic that passes from R4 to R3. Which action must the engineer take to resolve the issue?

- A. Implement traffic policing to drop packets that exceed the given threshold.
- B. Implement FIFO to queue excess traffic for transmission when bandwidth is available.
- C. Implement traffic shaping to drop excess packets.
- D. Implement a service policy in the outbound direction on each interface on the link to tag traffic exiting each router.

Answer: A

NEW QUESTION 235

An engineer a cisco MPLS tunnel to improve the streaming experience for the clients of a video -on-demand server. Which action must the engineer perform to configure extended discovery to support the MPLS LDP session between the headend and tailend routers?

- ☒ Configure the interface bandwidth to handle TCP and UDP traffic between the LDP peers.
- ☐ Configure a Cisco MPLS TE tunnel on both ends of the session.
- ☐ Configure an access list on the interface to permit TCP and UDP traffic.
- ☐ Configure a targeted neighbor session.

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

Answer: D

NEW QUESTION 240

What occurs when a high bandwidth multicast stream is sent over an MVPN using Cisco hardware?

- ☒ The traffic uses the default MDT to transmit the data only if it is a (S, G) multicast route entry.
- ☐ A data MDT is created to if it is a (*, G) multicast route entries.
- ☐ A data and default MDT are created to flood the multicast stream out of all PIM-SM neighbors.
- ☐ A data MDT is created to allow for the best transmission through the core for (S, G) multicast route entries.

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

Answer: D

NEW QUESTION 243

A customer has requested that the service provider use a Cisco MPLS TE tunnel to force the E-line service to take a specific route What is used to send the traffic over the tunnel?

- A. static route
- B. preferred path
- C. forwarding adjacency
- D. autoroute destination

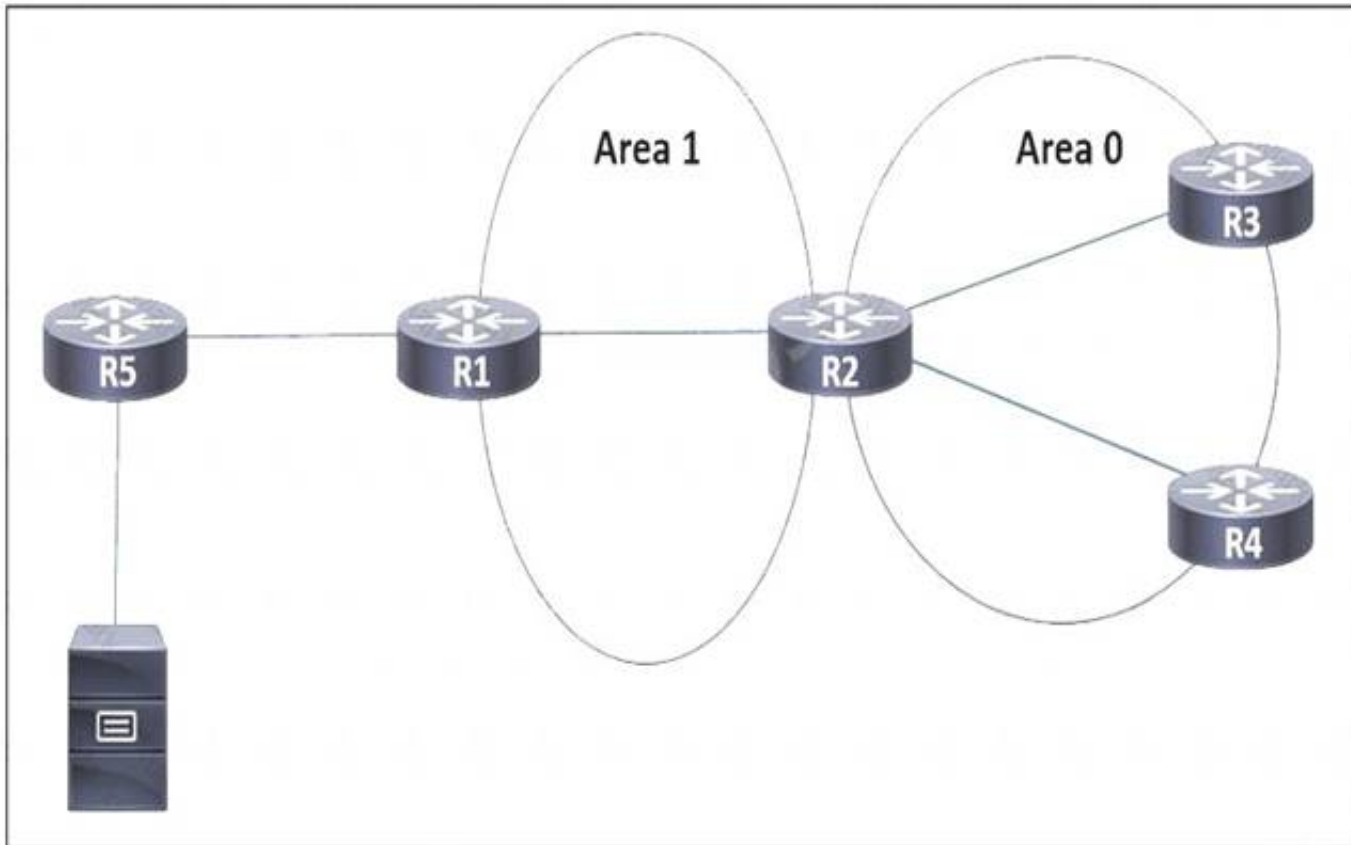
Answer: B

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios/12_2sr/12_2sra/feature/guide/srtunsel.html#wp1057815

NEW QUESTION 247

Refer to the exhibit.



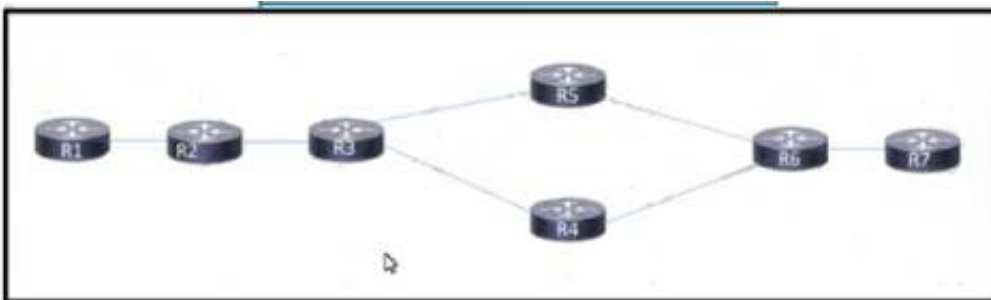
EIGRP is running between routers R5 and R1, and OSPF is used in the rest of the network. Users in a network attached to router R3 need to access a server connected to R5. Which task must the engineer perform so that only the users attached to R3 are able to access the server, but no other network is shared to OSPF?

- A. Configure redistribution using route maps to filter the routes that are shared
- B. Configure redistribution using an offset list to filter the routes that are shared.
- C. Configure an OSPF virtual link between R1 and R3 to route traffic between the two areas.
- D. Configure R1 as a stub router for EIGRP and OSPF so that only the default route is shared

Answer: A

NEW QUESTION 252

Refer to the exhibit. After a networking team configured this MPLS topology, the supervisor wants to view MPLS labels to verify the path that packets take from router R1 to router R7. The team already issued an ICMP ping to verify connectivity between the devices. Which task must the team perform to allow the supervisor to view the label switch path?



- A. Configure MPLS TE to display the labels in the stack between the head and tail-end routers
- B. Implement MPLS LDP to assign labels to all the routes in the transit path.
- C. Configure MPLS LDP Sync to sync labels from the routing table to the MPLS forwarding table.
- D. Implement MPLS OAM to display the labels for each hop along the path

Answer: D

NEW QUESTION 256

What is one of the differences between Ansible and Chef?

- A. Ansible uses YAML and Chef uses Ruby.
- B. Chef requires the use of Windows in the environment and Ansible requires Linux.
- C. Chef is highly scalable and Ansible is highly secure.
- D. Ansible uses Ruby and Chef uses Python.

Answer: A

NEW QUESTION 259

Refer to the exhibit.

```
R1
ip multicast-routing
ip pim rp-candidate GigabitEthernet1/0/0

interface g1/0/0
 ip pim sparse-mode

R2
ip multicast-routing
ip pim bsr-candidate GigabitEthernet1/0/0

interface g1/0/0
 ip pim sparse-mode
```

An engineer configured multicast routing on client's network. What is the effect of this multicast implementation?

- A. R2 floods information about R1 throughout the multicast domain.
- B. R2 is unable to share information because the ip pimn autorp listener command is missing.
- C. R1 floods information about R2 throughout the multicast domain.
- D. R2 is elected as the RP for this domain.

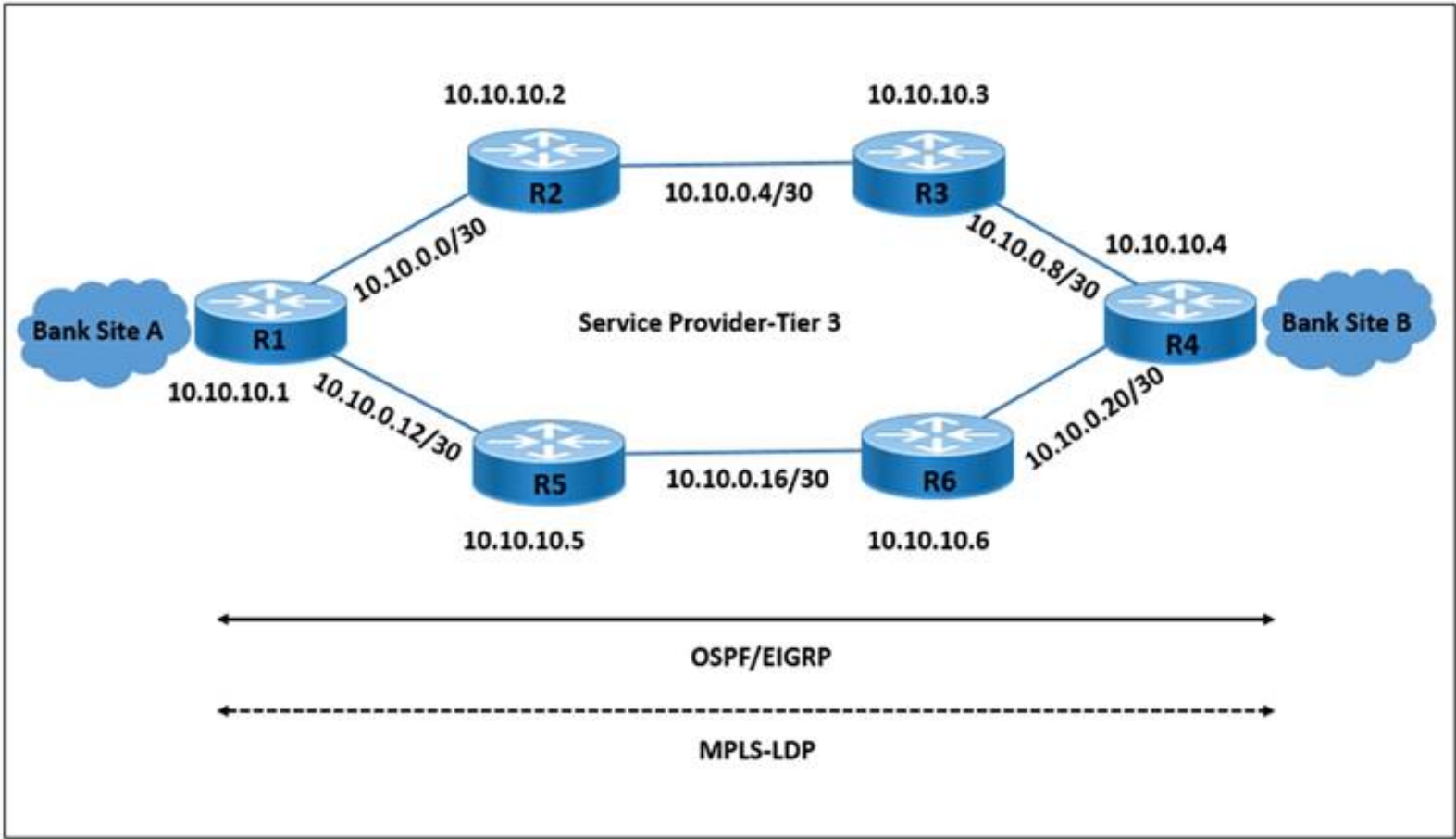
Answer: B

NEW QUESTION 262

Refer to the exhibit.

```
R2# show mpls ldp neighbor detail
Peer LDP Ident: 10.10.10.1:0; Local LDP Ident 10.10.10.2:0
TCP connection: 10.10.10.1.646 - 10.10.10.2.56531
Password: not required, none, in use
State: Oper; Msgs sent/rcvd: 18/18; Downstream; Last TIB rev sent 28
Up time: 00:01:08; UID: 3; Peer Id 2;
LDP discovery sources:
  GigabitEthernet2/0; Src IP addr: 10.0.0.1
    holdtime: 15000 ms, hello interval: 5000 ms
Addresses bound to peer LDP Ident:
  10.0.0.13 10.10.10.1 10.0.0.1
Peer holdtime: 180000 ms; KA interval: 60000 ms; Peer state: estab
Clients: Dir Adj Client
LDP Session Protection enabled, state: Incomplete
  duration: 86400 seconds

R1# show mpls ldp neighbor detail
Peer LDP Ident: 10.10.10.2:0; Local LDP Ident 10.10.10.1:0
TCP connection: 10.10.10.2.56531 - 10.10.10.1.646
Password: not required, none, in use
State: Oper; Msgs sent/rcvd: 19/19; Downstream; Last TIB rev sent 30
Up time: 00:02:27; UID: 2; Peer Id 1;
LDP discovery sources:
  GigabitEthernet2/0; Src IP addr: 10.0.0.2
    holdtime: 15000 ms, hello interval: 5000 ms
Addresses bound to peer LDP Ident:
  10.10.10.2 10.0.0.5 10.0.0.2 10.0.0.25
Peer holdtime: 180000 ms; KA interval: 60000 ms; Peer state: estab
```



LDP peering between routers R1 and R2 is dropped when the link between R1 and R2 is taken offline. However, LDP peering between R2 and R3 stays up when the link between R2 and R3 is taken offline. Which action allows MPLS traffic forwarding to continue normally if the link between R1 and R2 goes down?

- A. Enable IGP and LDP Synchronization on R1.
- B. Implement LDP Session Protection on R1.
- C. Enable IGP and LDP Synchronization on R2.
- D. Implement LDP Session Protection on R2.

Answer: B

NEW QUESTION 264

Drag and drop the characteristics from the left onto the automation tool on the right.

Answer Area

| | |
|---|---|
| It is the standard transport protocol for communicating with network devices. | NETCONF <div></div> <div></div> <div></div> |
| It is a standard data modeling language. | |
| It retrieves operational data. | |
| It develops data models. | |
| It shapes state data. | |
| It sets and reads configuration data. | |

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

- It is the standard transport protocol for communicating with network devices.
- It is a standard data modeling language.
- It retrieves operational data.
- It develops data models.
- It shapes state data.
- It sets and reads configuration data.

NETCONF

- It is a standard data modeling language.
- It retrieves operational data.
- It sets and reads configuration data.

NEW QUESTION 269

Refer to the exhibit.

```
router(config)# router ospf 11
router(config-if)# passive-interface default
```

An engineer started to configure a router for OSPF. Which configuration must the engineer perform on the router without changing any interface configuration so that the router establishes an OSPF neighbor relationship with its peer?

- A. router(config)# router ospf 11router(config-if)# no passive-interface ethernet 1/1
- B. router(config)# interface ethernet 1/1router(config-if)# no shutdown
- C. router(config)# interface ethernet 1/1router(config-if)# ip ospf hello-interval
- D. router(config)# interface ethernet 1/1router(config-if)# ip ospf priority 0

Answer: A

NEW QUESTION 274

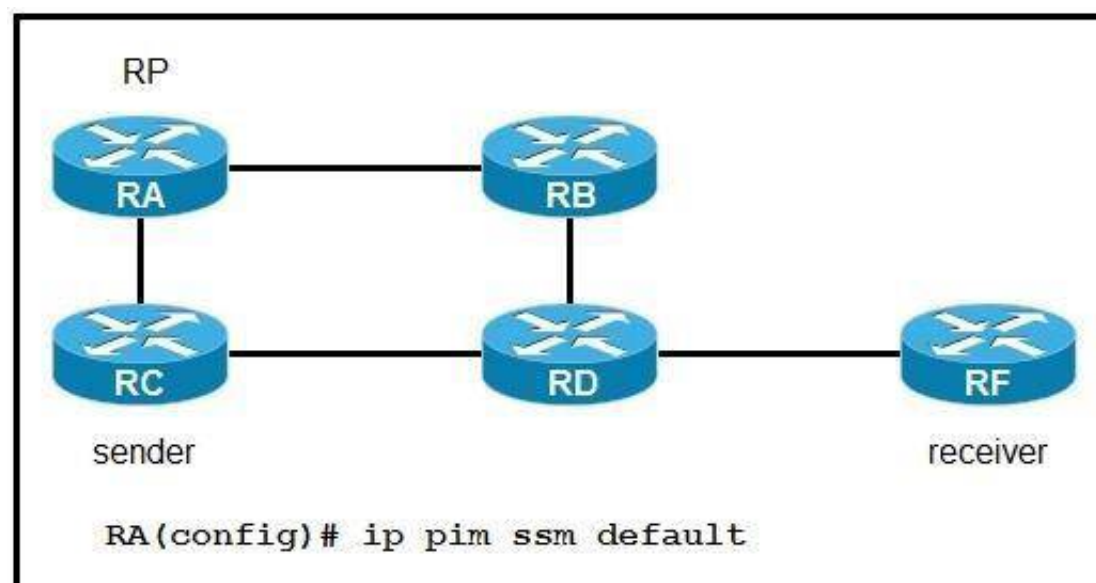
A network engineer is implementing BFD configuration changes on a customer's equipment. How is the bfd interval configuration on the interface disconnected?

- A. The status of the interface changes.
- B. The IPv4 or IPv6 address configuration on the interface changes.
- C. It is automatically disconnected when the BFD-configured subinterface is removed.
- D. It is automatically disconnected when the BFD main interface is removed.

Answer: D

NEW QUESTION 277

Refer to the exhibit:



If router RA is configured as shown, which IPv4 multicast address space does it use?

- A. 224.0. 0.0/8
- B. 225.0. 0.0/8
- C. 232.0. 0.0/8
- D. 239.0. 0.0/8

Answer: C

NEW QUESTION 278

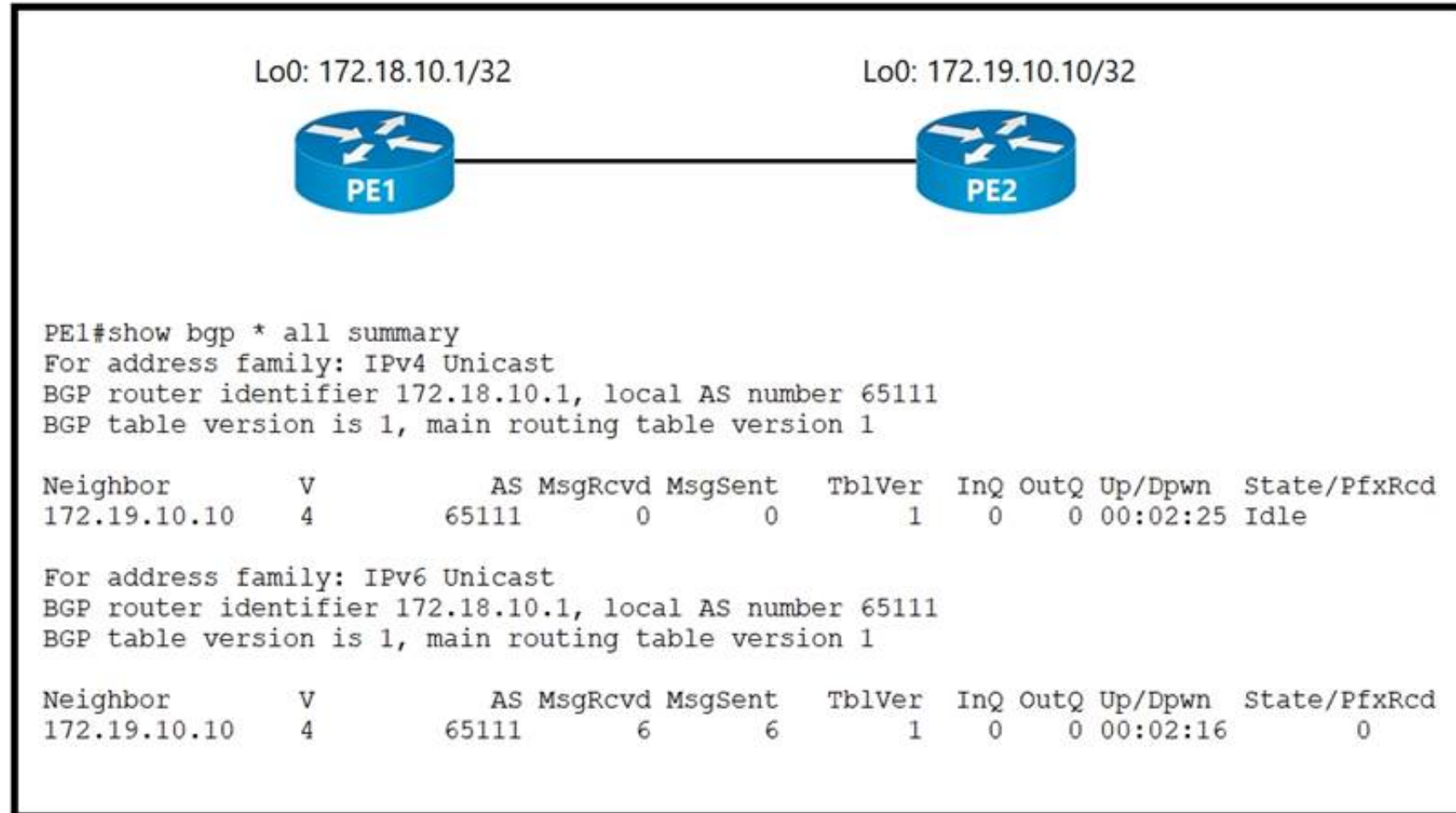
Why do Cisco MPLS TE tunnels require a link-state routing protocol?

- A. Link-state routing protocols use SPF calculations that the tunnel endpoints leverage to implement the tunnel
- B. The link-state database provides a data repository from which the tunnel endpoints can dynamically select a source ID
- C. The tunnel endpoints can use the link-state database to evaluate the entire topology and determine the best path
- D. The link state database provides segmentation by area, which improves the path-selection process

Answer: C

NEW QUESTION 279

Refer to the exhibit.



An administrator working for large ISP must connect its two POP sites to provide internet connectivity to its customers. Which configuration must the administrator perform to establish an iBGP session between routers PE1 on POP site 1 and PE2 on POP site 2?

- A. PE2#configure terminal PE2(config)#router bgp 65111PE2(config-router)#no neighbor 172.18.10.1 shutdown PE2(config-router)#end
- B. PE1#configure terminal PE1(config)#router bgp 65111PE1(config-router)#no neighbor 172.19.10.10 shutdownPE1(config-router)#end
- C. PE1#configure terminal PE1(config)#router bgp 65111PE1(config-router)#address-family ipv4 unicast PE1(config-router-af)#neighbor 172.19.10.10 activate PE1(config-router-af)#end
- D. PE2#configure terminal PE2(config)#router bgp 65111PE2(config-router)#address-family ipv4 unicast PE2(config-router-af)#neighbor 172.18.10.1 activate PE2(config-router-af)#end

Answer: B

NEW QUESTION 284

Which two actions describe ISP delegation to PCE servers? (Choose two)

- A. adding a new PCE server with lower precedence than the primary PCE
- B. changing the precedence of any of the PCE servers
- C. removing TE re-optimization timer timeouts
- D. entering the mpls traffic-eng reoptimize command
- E. adding a new PCE server with higher precedence than the primary PCE

Answer: AC

NEW QUESTION 289

A network engineer is configuring RIP as the routing protocol between multiple PEs and CEs. The engineer must avoid advertising the same routes back to their sources. Which action should be performed on the routers to accomplish this task?

- A. Configure a different route distinguisher for each prefix.
- B. Define the site of origin on each interface.
- C. Define VRFs on each device to separate the traffic.
- D. Enable bidirectional forwarding detection on each device.

Answer: B

Explanation:

Although the SoO is set on BGP address family configuration mode not interface mode, but it is applied to the interface based on this reference. "The configuration of the SoO extended community allows MPLS VPN traffic to be filtered on a per-site basis. The SoO extended community is configured in an inbound BGP route map on the PE router and is applied to the interface."

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3850/software/release/16-12/configuration_guide/m

NEW QUESTION 292

Refer to the exhibit:

```
R1:
interface FastEthernet0/0
ip address 10.1.12.1 255.255.255.0
duplex full
end
!
!
!
R1(config)#interface FastEthernet0/0
R1(config-if)#ospfv3 1 area 1 ipv4
% IPv6 routing not enabled
```

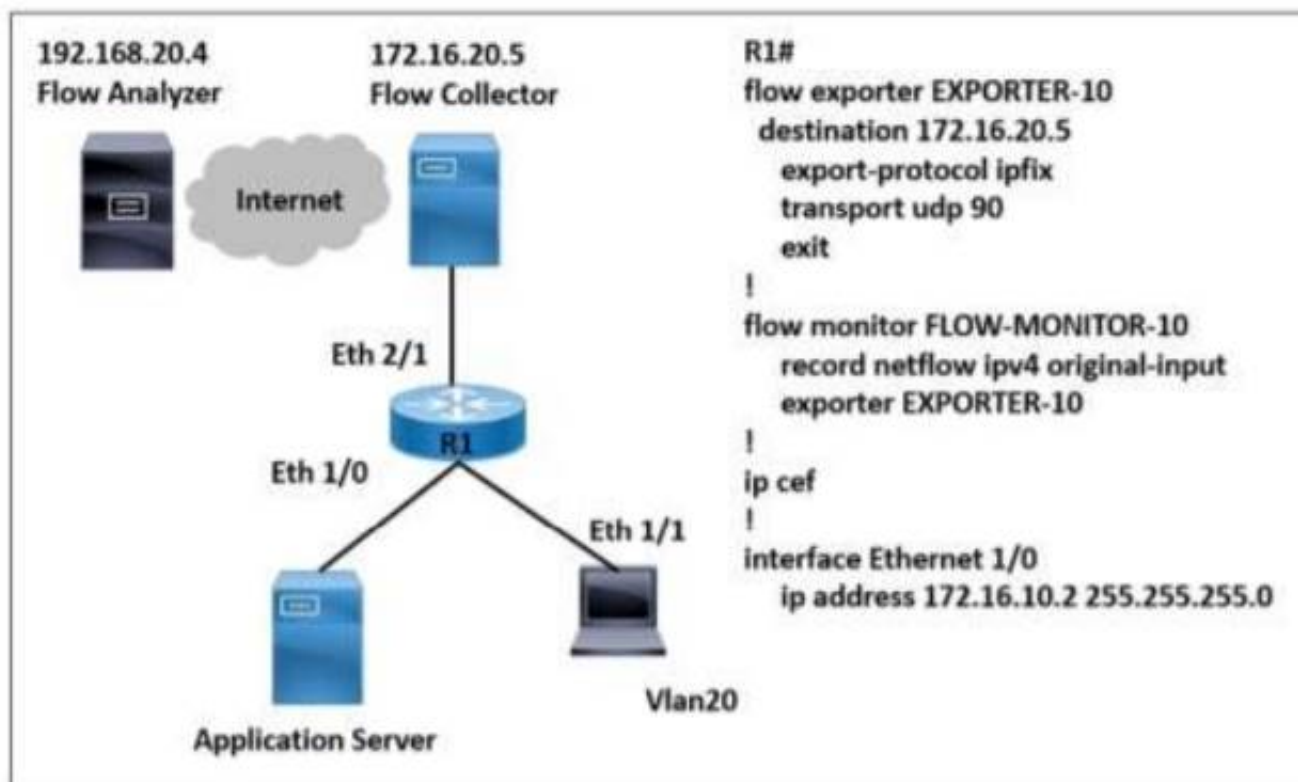
A network engineer is implementing an OSPF configuration Based on the output, which statement is true?

- A. In the ospfv3 1 area 1 ipv4 command, area 0 must be configured instead of area 1.
- B. OSPFv3 does not run for IPv4 on FastEthernet0/0 until IPv6 routing is enabled on the router and IPv6 is enabled on interface FastEthernet0/0
- C. OSPFv3 cannot be configured for IPv4; OSPFv3 works only for IPv6.
- D. "IPv6 routing not enabled" is just an informational message and OSPFv3 runs for IPv4 on interface FastEthernet0/0 anyway

Answer: B

NEW QUESTION 294

Refer to the exhibit.



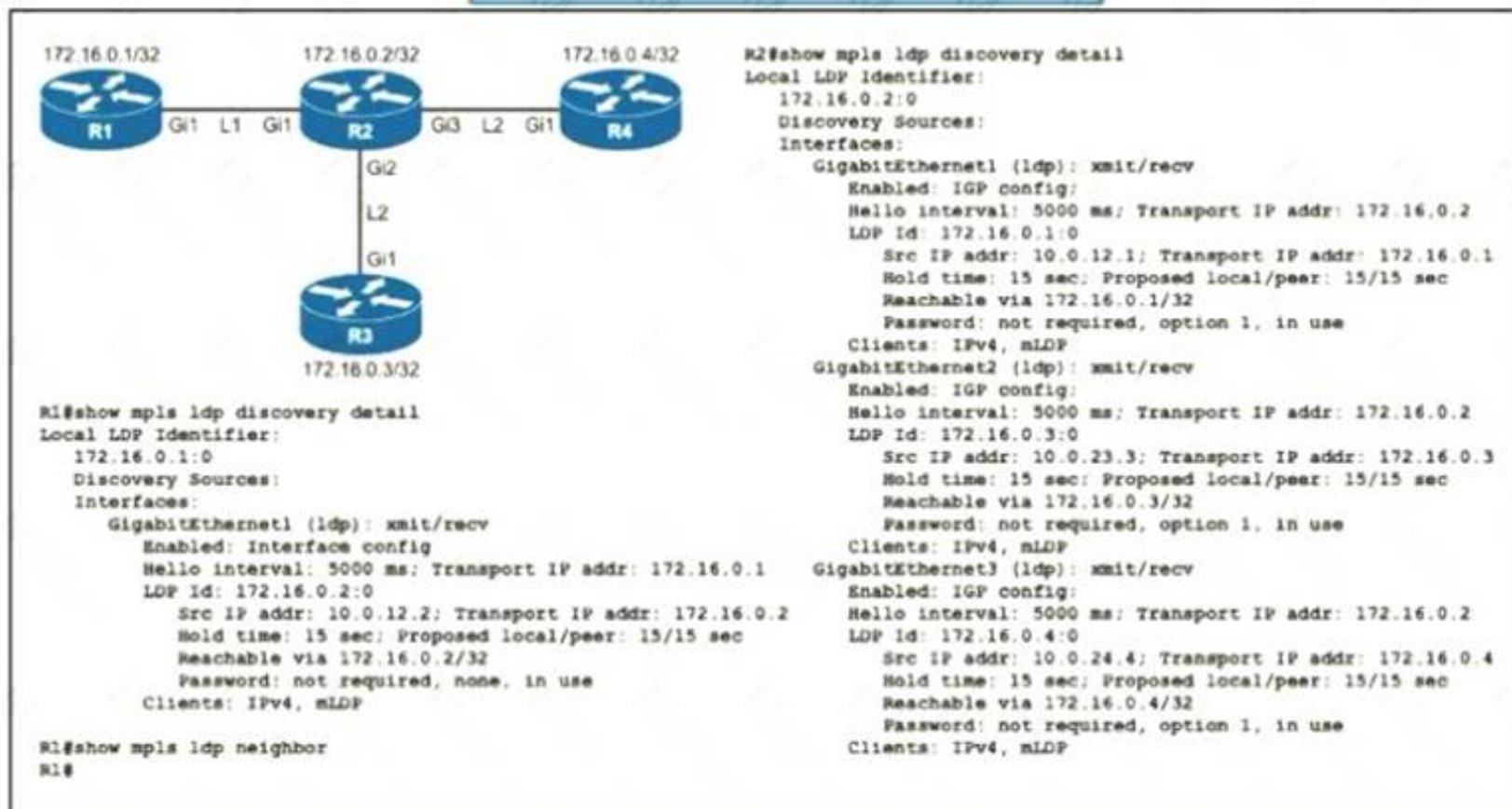
A network engineer wants to monitor traffic from the application server and send the output to the external monitoring device at 172.16.20.5. Application server traffic should pass through the R1 Eth2/1 interface for further analysis after it is monitored. Which configuration must be applied on the R1 router?

- A. Configure the FLOW-MONITOR-20 command.
- B. Configure the flow exporter EXPORTER-10 destination 192.168.20.4 command.
- C. Configure the ip flow monitor FLOW-MONITOR-10 input command on the Ethernet1/0 interface.
- D. Configure the ip flow monitor FLOW-MONITOR-10 output command on the Ethernet 2/1 interface.

Answer: C

NEW QUESTION 297

Refer to the exhibit.



An engineer began to configure LDP between R1 and R2, but R1 and R2 cannot yet establish an LDP TCP connection. Which additional task must be completed to finish the implementation?

- A. Configure the mpls ldp neighbor 172.16.0.1 password command on R1
- B. Configure the mpls ldp neighbor 10.0.12.1 password command on R1
- C. Configure the no mpls ldp password option 1 command on R2
- D. Configure the no mpls ldp password option 1 command on R1

Answer: A

NEW QUESTION 298

You are creating new Cisco MPLS TE tunnels. Which type of RSVP message does the headend router send to reserve bandwidth on the path to the tunnel's router?

- A. error
- B. reservation
- C. path
- D. tear

Answer: C

NEW QUESTION 299

An engineer working for telecommunication company with an employee id: 3715 15 021 needs to secure the LAN network using a prefix list Which best practice should the engineer follow when he implements a prefix list?

- A. An engineer must use non sequential sequence numbers in the prefix list so that he can insert additional entries later.
- B. The final entry in a prefix list must be /32
- C. An engineer must identify the prefix list with a number only
- D. An engineer must include only the prefixes for which he needs to log activity.

Answer: A

NEW QUESTION 303

What is a feature of model-driven telemetry?

- A. It occasionally streams to multiple servers in the network.
- B. It is less secure because it uses community strings.
- C. It uses the pull model to send requested data to a client when polled.
- D. It uses the push model to stream data to desired destinations.

Answer: D

NEW QUESTION 304

Why do packet loops occur during the configuration of BIDIR-PIM?

- A. The network does not support BIDIR-PIM
- B. The network is partially upgraded to support BIDIR-PIM
- C. No interface for carrying traffic for multicast groups has been configured
- D. The router has not been configured to advertise itself

Answer: B

NEW QUESTION 305

Drag and drop the functionalities from the left onto the target fields on the right.

| | |
|---------|--|
| MAP-T | Can translate RFC1918 IPv4 to Public IPv4 |
| NAT 64 | Can be Stateless or stateful |
| NAT 44 | Provides reachability of IPv6 host over IPv4 domains |
| DS Lite | Provides reachability of IPv4 host over IPv6 domains |
| 6RD | Requires IPv6 access network. |

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

| | |
|---------|---------|
| MAP-T | NAT 44 |
| NAT 64 | NAT 64 |
| NAT 44 | 6RD |
| DS Lite | DS Lite |
| 6RD | MAP-T |

NEW QUESTION 309

In an MPLS network, which protocol can be used to distribute a Segment Prefix?

- A. OSPF
 B. LDP
 C. RSVP-TE
 D. EIGRP

Answer: A

NEW QUESTION 314

An engineer is implementing NSR with OSPF on a large campus that requires high availability. Which task must an engineer perform to complete the process with minimal disruption to traffic?

- A. Reset OSPF neighbor sessions to maintain state information during router switchover
 B. Configure the device to repopulate state information using routing updates received from the BDR
 C. Increase the keepalive interval on the OSPF neighbors so that traffic continues to pass during the switchover.
 D. Ensure that the dual RP has synchronized their state information before performing the switchover operation.

Answer: D

NEW QUESTION 315

Which statement about TLS is accurate when using RESTCONF to write configurations on network devices'?

- A. It requires certificates for authentication.
 B. It is provided using NGINX acting as a proxy web server
 C. It is used for HTTP and HTTPS requests.
 D. It is not supported on Cisco devices

Answer: A

NEW QUESTION 317

Drag and drop the functions from the left onto the correct Path Computation Element Protocol roles on the right

calculates paths through the network

keeps TE topology database information

sends path calculation request

sends path creation request

sends path status updates

Path Computation Element

Path Computation Client

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Path Computation Element (Calculates paths through the network, keeps TE topology database information, sends path status updates)
Path computation Client (sends path calculation request, sends path creation request)
Path Computation Element (PCE)
Represents a software module (which can be a component or application) that enables the router to compute paths applying a set of constraints between any pair of nodes within the router’s TE topology database. PCEs are discovered through IGP.
Path Computation Client (PCC)
Represents a software module running on a router that is capable of sending and receiving path computation requests and responses to and from PCEs. The PCC is typically an LSR (Label Switching Router).
https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs_r5-3/mpls/configuration/guide/b-mpls-cg53x-crs

NEW QUESTION 319

You are writing an RPL script to accept routes only from certain autonomous systems. Consider this code.

```
RP/0/RP0/CPU0:router(config-rpl)# if as-path in (ios-regex ‘.*77$’)
RP/0/RP0/CPU0:router(config-rpl-if)# pass
RP/0/RP0/CPU0:router(config-rpl-if)# endif
```

If you apply this code to BGP filters, which effect does the code have on your router?

- A. denies routes from AS 7070
- B. allows routes from AS 7077
- C. denies routes from AS 7007
- D. allows routes from AS 770

Answer: B

NEW QUESTION 320

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